DEPARTMENT OF THE ARMY
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February 22, 2002

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NMED Hazardous Waste Bureau

REPLY TO
ATTENTION OF:
Environment and Safety Directorate

Ms. Cheryl Frischkorn
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

Subject: Submission of the Final Hazardous Waste Storage Facility Evaporation Tank (SWMU 90) Investigation and Closure Report

Dear Ms. Frischkorn:

White Sands Missile Range submits the subject closure report. Required data and supporting documentation are included in the attachment:

Final Hazardous Waste Storage Facility Evaporation Tank (SWMU 90) Investigation and Closure Report

This report summarizes the results of the December 2001 soil gas, subsurface soil, and groundwater investigation for clean closure at the former Hazardous Waste Storage Facility Evaporation Tank and serves as an addendum to the original closure report for SWMU 90 entitled *Final Closure Report, Evaporation Tank at Building 22895, EPA ID# 2750211235,* dated 15 April 1993. Should you have any questions regarding this proposal, please contact Mr. Gene Forsythe, at (505) 678-2224.

Copies of this correspondence are being furnished to Messrs. James Bearzi and John Kieling, NMED HWB; Mr. James Harris, Region VI EPA; Ms. Nancy Kosko, Developmental Test Command; and to the MEVATEC Corporation.

The following certification is provided as required by our permit:

> "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for

submitting false information, including the possibility of fine and imprisonment or knowing violations."

Sincerely,

Thomas A. Ladd

Thomas A. Ladd
Director, Environment and
Safety Directorate

Enclosure

REPORT DOCUMENTATION PAGE			OMB No. 0704-0188

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13. ABSTRACT (MAXIMUM 200 WORDS)

This report summarizes the results of the December 2001 soil gas, soil, and groundwater investigation for clean closure at the former Hazardous Waste Storage Facility Evaporation Tank (Solid Waste Management Unit 90) and serves as an addendum to the original closure report for SWMU 90. The data presented in this report, in conjunction with results from previous investigations at the site, provides sufficient justification for a No Further Action determination at SWMU 90.

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HAZARDOUS WASTE STORAGE FACILITY EVAPORATION TANK (SWMU 90) INVESTIGATION AND CLOSURE REPORT

Submitted to:

U.S. Army
White Sands Missile Range
Environment and Safety Directorate
White Sands Missile Range, New Mexico 88002-5048

February 2002

Submitted by:

MEVATEC Corporation
Building 126
White Sands Missile Range, New Mexico 88002

EXECUTIVE SUMMARY

This report summarizes the removal, investigation, and closure of a former chemical evaporation tank at the White Sands Missile Range (WSMR) Hazardous Waste Storage Facility (HWSF). The subject tank is identified in Module VIII [Hazardous and Solid Wastes Amendments (HSWA) Corrective Action] of the Resource Conservation Recovery Act (RCRA) Part B Permit for WSMR as Solid Waste Management Unit (SWMU) 90. Additionally, the tank is listed in the Defense Site Environmental Restoration Tracking System (DSERTS) as WSMR-37 (incorrectly identified as DSERTS 35 in previous documents).

On 1 June 1992, the New Mexico Environment Department (NMED) approved a clean closure plan for SWMU 90. The title of the plan was *Clean Closure Plan for the Evaporation Tank at Building 22895, EPA ID# 2750211235*. This approved Clean Closure Plan was the basis for initiation of closure activities. Clean closure was to be demonstrated by the chemical analysis of discreet and composite samples to be collected from the evaporation tank concrete matrix and subsurface soils beneath the tank.

Soil samples collected from beneath the former tank location during October 1992 were analyzed for Toxicity Characteristic Leaching Procedure (TCLP) concentrations of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals, and for total concentrations of cyanide. Analytical results indicated several concentrations of TCLP-TCE and total cyanide above laboratory detection limits. The highest cyanide concentration detected during the October 1992 is below the NMED soil screening level (SSL) for a residential exposure scenario (NMED, 2000).

As required by the approved Clean Closure Plan, additional subsurface soil samples were collected during February 1993 for 40 Code of Federal Regulations Part 264, Appendix IX constituent analysis, which included inorganic non-metals, metals, pesticides & polychlorinated biphenyls (PBCs), chlorinated herbicides, VOCs, and SVOCs. Analytical results indicated concentrations of total arsenic, barium, cobalt, copper, cyanide, lead, nickel, silver, tin, vanadium, and zinc above laboratory detection limits. Of these, arsenic was the only constituent identified with a total concentration above the NMED SSL for a residential exposure scenario (NMED, 2000). However, the highest arsenic concentration is below the NMED SSL for an industrial/occupational exposure scenario (NMED, 2000).

On 31 August 1993, the NMED denied clean closure of SWMU 90 because TCE was identified in the subsurface at concentrations above TCLP regulatory limits. WSMR responded to the denial by requesting a second opportunity to demonstrate that TCE did not remain beneath the tank. The NMED agreed, provided WSMR prepare and submit a revised Clean Closure Plan. WSMR subsequently prepared and submitted the revised Clean Closure Plan (dated 3 December 1993) to the NMED for final approval. The plan stated that the additional soil samples would be collected and analyzed for TCLP concentrations of TCE in order to verify the validity of the previous TCLP results.

Following approval of the revised Clean Closure Plan by the NMED on 8 September 1994, WSMR initiated a follow-up investigation at the tank site during January 1995. The evaporation tank was completely removed from the site in January 1995 and disposed as non-hazardous waste.

Additional subsurface soil samples were collected from twelve 25 feet (7.6 meter) deep soil borings beneath the former tank location for TCLP-TCE analysis. Analytical results indicated no concentrations of TCE above the laboratory detection limit for TCLP analysis. On 9 July 1996, the NMED again denied clean closure of the site due to the documented presence of TCE in the 1992 TCLP samples and also due to the lack of total TCE analysis during the January 1995 sampling event.

The NMED subsequently allowed WSMR a final opportunity to apply for clean closure at SWMU 90 by performing another site investigation to determine total concentrations of TCE (and its daughter products) in the subsurface soil beneath the former tank location. Prior to commencing with field activities, WSMR prepared a revised Clean Closure Plan entitled *Modification to the Approved Clean Closure Plan for the Hazardous Waste Storage Facility Evaporation Tank (SWMU 90/DSERTS 35)* (dated June 2001), which NMED subsequently approved. This final site investigation, performed during December 2001, consisted of a soil gas survey, subsurface soil sampling, and groundwater sampling at existing HWSF test wells. All samples collected during the investigation were analyzed for total concentrations of VOCs. The results of the soil gas, soil, and groundwater investigations indicated no VOCs (specifically TCE and its daughter products) above any NMED SSL for a residential exposure scenario (NMED, 2000) or New Mexico Water Quality Control Commission drinking water standards (NM WQCC, 1996).

Based on the analytical data collected from all investigations, WSMR believes that all potential exposure pathways (soil, groundwater, air, and surface water) are considered incomplete. WSMR asserts that several of the metals detected at elevated concentrations (specifically arsenic) are natural background levels for the Tularosa Basin. This assertion will be verified during the upcoming WSMR background soil investigation. In accordance with the 2001 Clean Closure Plan, the site was backfilled with clean soil during February 2002 and graded to promote positive surface water drainage away from the SWMU 90. WSMR believes that no further action is required at SWMU 90. Following concurrence by the NMED-HWB, WSMR plans to prepare and submit a No Further Action Petition to the NMED-HWB for review and comment.

CERFICATION OF CLOSURE

This is to certify that Solid Waste Management Unit 90, the former chemical evaporation tank located at the White Sands Missile Range Hazardous Waste Storage Facility, was closed in accordance with the revised clean closure plan entitled *Modification to the Approved Clean Closure Plan for the Hazardous Waste Storage Facility Evaporation Tank (SWMU 90 / DSERTS 35)* (dated June 2001), as approved by the New Mexico Environment Department's Hazardous Waste Bureau on 23 July 2001. The details of the December 2001 closure investigation are contained within this report. The details of historical closure investigations are documented in reports found in appendices to this document. As required by White Sands Missile Range's Resource Conservation Recovery Act (RCRA) Part B Permit, the following certification statement is provided below:

> "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

2-21-02

Gregory T. Watterson, EIT
Site Engineer
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White Sands Missile Range, NM

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2/21/02

Leonard Habel, P.E.
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2/26/02

22 Feb 02

Thomas A. Ladd
Director, Environment and Safety Directorate
Owner/Operator
White Sands Missile Range, NM

Date

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APPENDIX I Analytical Data – PDP Analytical Services
APPENDIX J Analytical Data – Assaigai Analytical Laboratories, Inc.
APPENDIX K Soil Cuttings Disposal Manifest

LIST OF ACRONYMS

bgs	below ground surface
cm	centimeter(s)
°C	degrees Celsius
°F	degrees Fahrenheit
DL	detection limit
DSERTS	Defense Site Environmental Restoration Tracking System
EPA	Environmental Protection Agency
ft	foot, feet
gal	gallon(s)
GC/MS	gas chromatograph/mass spectrometer
HSWA	Hazardous and Solid Wastes Amendments
HWSF	Hazardous Waste Storage Facility
in.	inch, inches
L	liter(s)
m	meter(s)
m^3	cubic meter
MeCl	methylene chloride
MDL	method detection limit
mg/kg	milligrams per kilogram
µg/L	micrograms per liter
µS/cm	microsiemens per centimeter
NM	New Mexico
NMED	New Mexico Environment Department
oz	ounce(s)
PVC	polyvinyl chloride
QA	quality assurance
QC	quality control
RCRA	Resource Conservation Recovery Act
SB	soil boring
SG	soil gas
SWMU	Solid Waste Management Unit
T&E	threatened and endangered
TCE	Trichloroethene
TCLP	Toxicity Characteristics Leaching Procedure
TDS	total dissolved solids
TW	test well
VOC	volatile organic compound
WQCC	(New Mexico) Water Quality Control Commission
WSMR	White Sands Missile Range
yd^3	cubic yard

HAZARDOUS WASTE STORAGE FACILITY EVAPORATION TANK (SWMU 90) INVESTIGATION AND CLOSURE REPORT

1.0 INTRODUCTION

This closure report summarizes the removal, investigation, and closure of a former chemical evaporation tank at the White Sands Missile Range (WSMR) Hazardous Waste Storage Facility (HWSF). The subject tank is identified in Module VIII [Hazardous and Solid Wastes Amendments (HSWA) Corrective Action] of the Resource Conservation Recovery Act (RCRA) Part B Permit for WSMR as Solid Waste Management Unit (SWMU) 90. Additionally, the tank is listed in the Defense Site Environmental Restoration Tracking System (DSERTS) as WSMR-37. (Note: the tank was incorrectly identified as DSERTS 35 in previous documents).

This report summarizes the results of historical site investigations, subsequent discussions with the New Mexico Environment Department (NMED), and presents the results of the soil gas, subsurface soil, and groundwater investigation performed during December 2001. NMED has stated that the two previous site investigations did not present conclusive data to allow for clean closure of the SWMU. The December 2001 sampling effort was undertaken in response to the NMED's denial for clean closure. Copies of correspondence letters between WSMR and the NMED are found in Appendix A. It is the intent of this report to supplement the data presented in the two previous clean closure attempts. Copies of the two previous clean closure reports are found in Appendices B and C. The data presented in this report, in conjunction with the results from previous investigations at the site, should provide sufficient justification for a No Further Action determination at SWMU 90.

2.0 BACKGROUND

The HWSF is located approximately 8 miles (mi) [13 kilometers (km)] east of the WSMR Main Post Headquarters along Nike Avenue (Range Road 2) (see Figure 2-1). The tank was located within the fenced HWSF complex immediately adjacent to the south side of Building 22895 (see Figure 2-2). The HWSF is located at 32° 23' north latitude and 106° 19' west longitude. The approximate Universal Transverse Mercator location for the HWSF is 3585108.2 north and 374777.8 east. (WSMR, 2001)

The evaporation tank was a shallow, open-top tank with an inner and outer containment system. A historical photograph of the tank is presented in Photograph 2-1. The dimensions of the outer tank were 57.0 feet (ft) [17.4 meters (m)] long, 21.0 ft (6.4 m) wide, and 2.0 ft (0.6 m) deep. The dimensions of the inner tank were 46.7 ft (14.2 m) long, 11.3 ft (3.4 m) wide, and 1.5 ft (0.4 m) deep. All tank walls were 6 inches (in.) [15 centimeters (cm)] thickness. The tank site in its present condition is shown in Photograph 2-2. (WSMR, 1993)

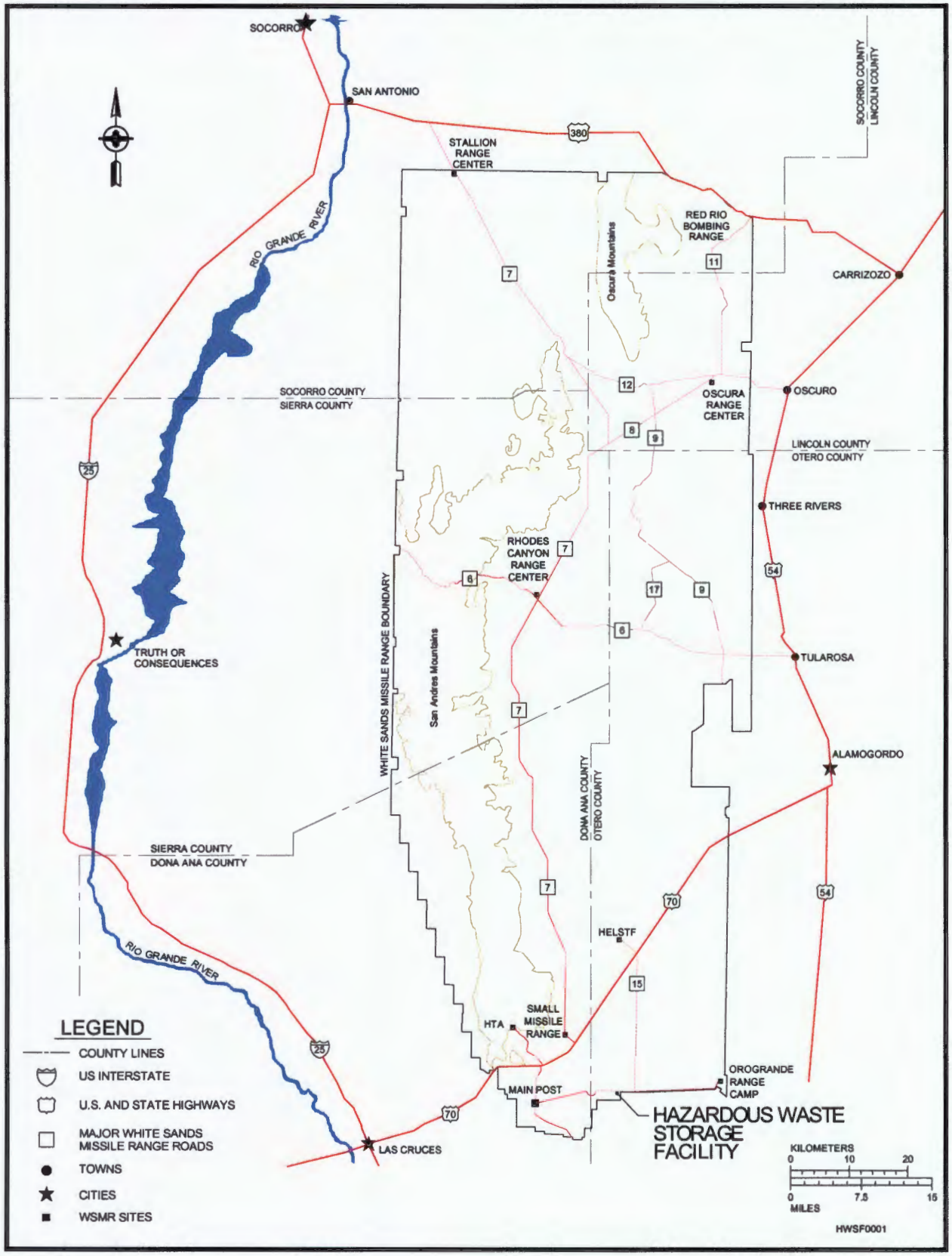


Figure 2-1. Location of Hazardous Waste Storage Facility.

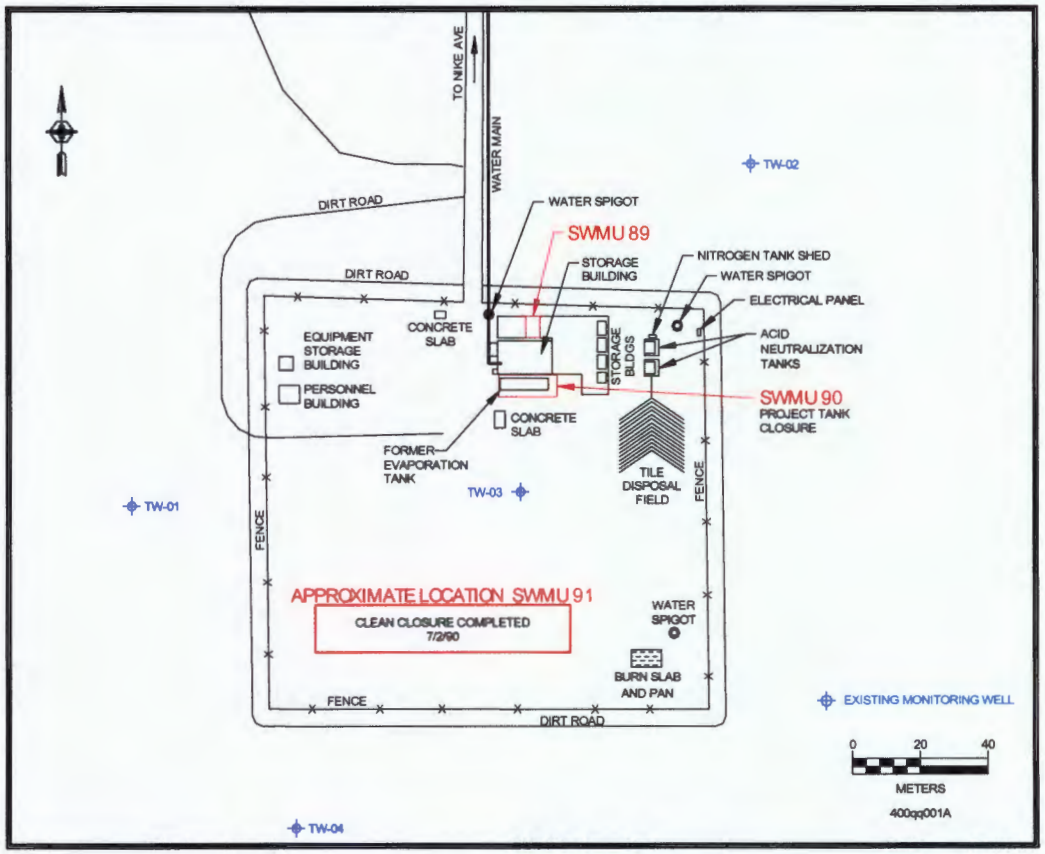
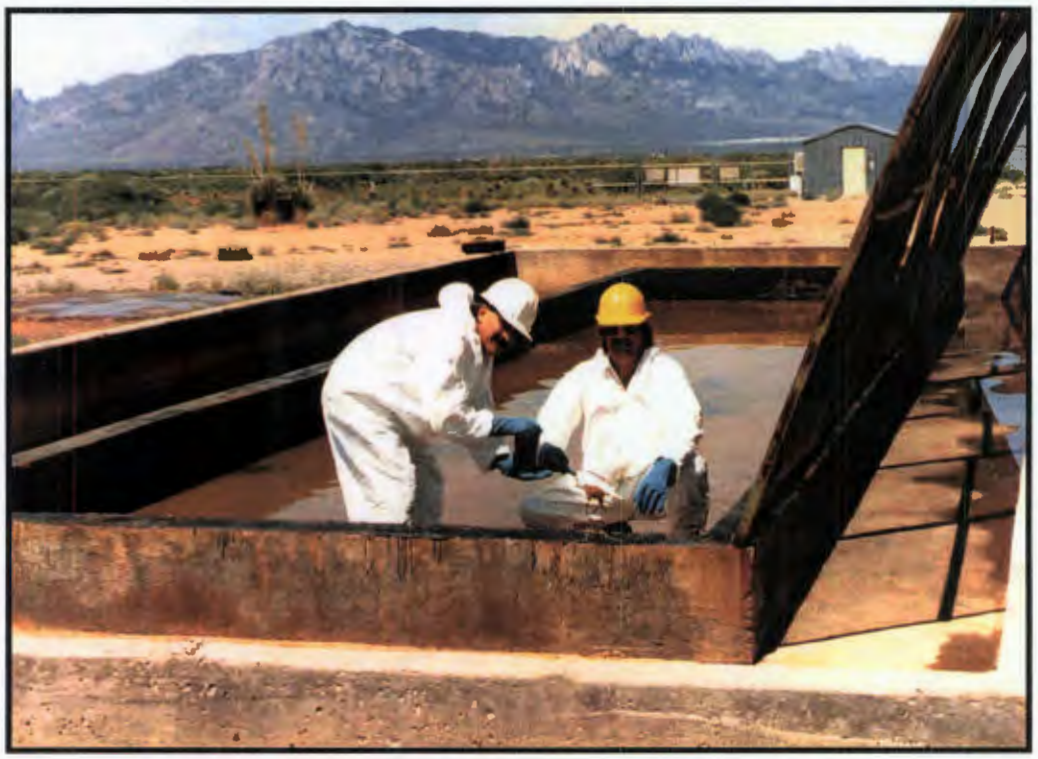


Figure 2-2. Hazardous Waste Storage Facility Site Map.



Photograph 2-1. Evaporation tank prior to removal (1992).

Photograph 2-2. Evaporation tank site following removal (1999). The former tank location is outlined with flagging.

The inner tank was used approximately twice a year as an evaporation basin for waste photographic solution. These wastes, generated predominantly at the WSMR photography laboratory, included aqueous solutions of potassium ferricyanide, potassium ferrocyanide, bleach solutions, developing baths and fixers, and waste from cyanide recycling equipment. The solid wastes remained in the evaporation tank as the liquid fraction evaporated. The remaining solids were then removed, placed in drums, and disposed in the Hazardous Waste Landfill (SWMU 91). The NMED granted clean closure at SWMU 91 on 2 July 1990. (WSMR, 1993)

3.0 SUMMARY OF PREVIOUS INVESTIGATIONS AND REMOVAL ACTIVITIES

Two historical closure investigations were performed at SWMU 90 by WSMR and are summarized below. Results of these investigations are summarized in greater detail in the following reports, which are found in appendices to this document:

- *Final Closure Report, Evaporation Tank at Building 22895, EPA ID# 2750211235,* dated 15 April 1993 (see Appendix B)
- *Final Hazardous Waste Storage Facility Evaporation Tank Closure,* dated 4 April 1995 (see Appendix C)

3.1 Initial Investigation (June 1992-February 1993)

On 1 June 1992, the NMED approved a clean closure plan for SWMU 90. The title of the closure plan was *Clean Closure Plan for the Evaporation Tank at Building 22895, EPA ID# 2750211235*. This approved plan was the basis for initiation of closure activities. Clean closure was to be demonstrated by the chemical analysis of discreet and composite samples to be collected from the evaporation tank concrete matrix and subsurface soils beneath the tank. A previous environmental contractor performed closure activities.

During June, July, and August 1992, the interior of the tank was thoroughly steam-cleaned and all material containerized and disposed (see Photograph 3-1). Samples of the concrete tank matrix were collected and submitted for laboratory analysis (see Photographs 3-2 and 3-3). Analytical results indicated that the concrete matrix was non-hazardous (see Appendix B, page 16, Table 4). On 18 November 1992, the NMED subsequently concurred that the concrete tank matrix was non-hazardous. The inner and outer walls of the tank were removed during January 1993 and disposed at the WSMR sanitary landfill as non-hazardous waste. The tank floor was left in place to serve as a cap over the site.

Photograph 3-1. Steam cleaning evaporation tank (1992).

Photograph 3-2. Sampling concrete matrix (1992).

Photograph 3-3. Sampling concrete matrix (1992).

During October 1992, subsurface soil samples were collected from beneath the tank using a stainless steel hand auger. Soil samples were collected from 3 soil borings (identified as #1, #2, & #3) at depths of 0-6 in. (0-15 cm) and 30-36 in. (76-91 cm) below ground surface (bgs). The locations of the hand auger borings are indicated on Figure 3-1. All samples were submitted for total cyanide analysis and Toxicity Characteristic Leaching Procedure (TCLP) analysis for metals, volatile organic compounds (VOC), and semi-volatile organic compounds (SVOC). Analytical results indicated concentrations of total cyanide and TCLP-trichloroethylene (also known as trichloroethene or TCE) above regulatory limits. All other constituents were found to be below laboratory detection limits (DL). Table 3-1 summarizes the cyanide and TCE detections above laboratory DLs. Copies of analytical data can be found in Appendix B. Photographs of the October 1992 sampling event are not available.

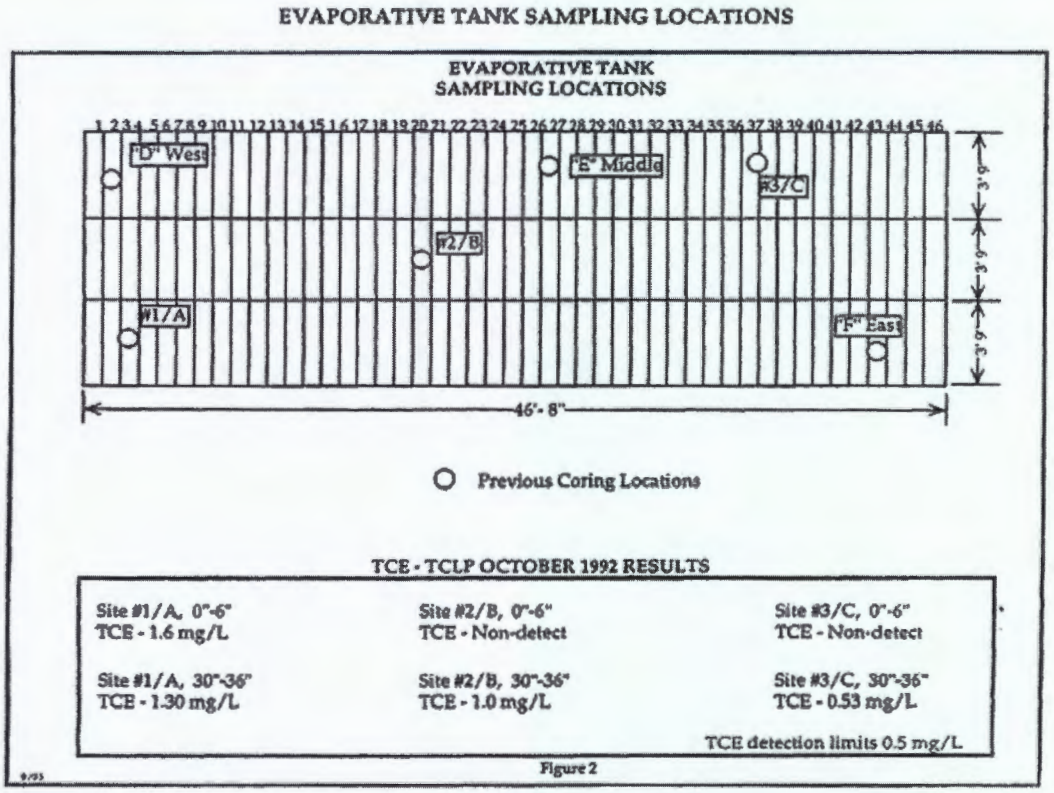


Figure 3-1.
Sample Locations from October 1992 and February 1993 Sampling Event

In response to the TCLP-TCE detections from the October 1992 sampling event, nine additional soil samples were collected during February 1993: six subsurface samples from soil borings #1, #2, and #3 (subsequently renamed as "A", "B", & "C" respectively) at depths ranging from 32-80 in. (81-203 cm) bgs and three surface samples from locations "D-West", "E-Middle", and "F-East" at a depth of 0-6 in. (0-15 cm) bgs. All samples were submitted for laboratory analysis for 40 Code of Federal Regulations Part 264 Appendix IX constituents, which consisted of inorganic non-metals, metals, pesticides & polychlorinated biphenyls (PBCs), chlorinated herbicides, VOCs, and SVOCs.

Table 3-1.
Constituents Detected Above Laboratory Detection Limits from the October 1992 and February 1993 Soil Sampling Events

Constituent Sample Date	NMED SSLs [1]		EPA Region IX PRG [2]		Units	Sample Identification														
						#1 / A				#2 / B				#3 / C				D-West	E-Middle	F-West
	Residential SSL	SSL DAF 1	Residential PRG	PRG DAF 1		0"-6"	30"-36"	42"-50"	77"-81"	0"-6"	30"-36"	35"-42"	72"-80"	0"-6"	30"-36"	43"-51"	70"-78"	0"-6"	0"-6"	0"-6"
						10-9-92	10-9-92	2-9-93	2-9-93	10-9-92	10-9-92	2-9-93	2-9-93	10-9-92	10-9-92	2-9-93	2-9-93	2-12-93	2-12-93	2-12-93
INORGANIC NON-METALS																				
Total Cyanide	1200	0.05	11.0	Not listed	mg/kg [3]	14.0	2.1	1.4	<0.5	2.4	<1.0	<0.5	<0.5	10.0	1.6	<0.5	<0.5	2.3	<1.0	82.0
VOLATILE ORGANIC COMPOUNDS																				
TCLP-TCE	N/A	N/A	N/A	N/A	mg/l [4]	1.6	1.3	--	--	<0.5	<1.0	--	--	0.53	<0.5	--	--	--	--	--
METALS																				
Total Arsenic	3.9	3.0	0.39	1.0	mg/kg	--	--	<0.5	3.0	--	--	4.0	<0.5	--	--	6.0	7.5	<2.5	<2.5	<2.5
Total Barium	5200	40.0	5400	82.0	mg/kg	--	--	130.0	120.0	--	--	68.0	190.0	--	--	82.0	160.0	32.0	29.0	32.0
Total Cobalt	4500	0.008	4700	Not listed	mg/kg	--	--	<2.5	<2.5	--	--	6.0	<2.5	--	--	2.6	<2.5	<2.5	<2.5	<2.5
Total Copper	2800	400	2900	Not listed	mg/kg	--	--	3.5	<2.5	--	--	7.5	<2.5	--	--	15.0	<2.5	2.5	<2.5	<2.5
Total Lead	400	0.008	400	Not listed	mg/kg	--	--	15.0	12.0	--	--	12.0	11.0	--	--	13.0	12.0	<5.0	<5.0	<5.0
Total Nickel	1500	10.0	150	7.0	mg/kg	--	--	7.0	6.5	--	--	7.5	<5.0	--	--	6.5	<5.0	<5.0	<5.0	<5.0
Total Silver	380	0.4	390	2.0	mg/kg	--	--	4.5	3.0	--	--	<2.5	<2.5	--	--	2.5	2.5	2.5	2.5	<2.5
Total Tin	Not listed	Not listed	47000	Not listed	mg/kg	--	--	3.0	9.2	--	--	9.7	5.0	--	--	10.0	8.5	11.0	9.9	43.0
Total Vanadium	530	0.04	550	300.0	mg/kg	--	--	15.0	20.0	--	--	18.0	<2.5	--	--	19.0	5.0	9.3	11.0	11.0
Total Zinc	23000	60.0	23000	620.0	mg/kg	--	--	25.0	13.0	--	--	26.0	4.0	--	--	74.0	18.0	13.0	14.0	12.0

Notes: [1]: New Mexico Environment Department Hazardous Waste Bureau & Ground Water Quality Bureau Voluntary Remediation Program Residential Soil Screening Levels, 18 December 2001
[2]: Environmental Protection Agency, Region IX Residential Preliminary Remediation Goals, 1 November 2000 edition. Region IX values were used (instead of Region VI) because Region IX values are the most current EPA health-based screening levels.
[3]: mg/kg – milligrams per kilogram
[4]: mg/l – millgrams per liter

Table 3-1 summarizes the constituent concentrations detected above laboratory DLs. All other constituents (including TCE) were found to be below laboratory DLs. However, concentrations of arsenic were found at levels that exceed NMED health based soil screening levels (SSL) for a residential exposure scenario (NMED, 2000). These arsenic concentrations are likely indicative of natural background arsenic concentrations for the Tularosa Basin. Copies of all analytical data can be found in Appendix B. Photographs of the February 1993 sampling event are not available.

WSMR formally submitted the results of the October 1992 and February 1993 investigations to the NMED on 15 April 1993 as a closure report entitled *Final Closure Report, Evaporation Tank at Building 22895, EPA ID# 2750211235*. A copy of the closure report is found in Appendix B. On 31 August 1993, the NMED denied clean closure of SWMU 90 because TCE was identified in the subsurface at concentrations above TCLP regulatory limits (see August 31, 1993 NMED letter in Appendix A). WSMR responded to the denial by requesting a second opportunity to demonstrate that TCE did not remain beneath the tank. The NMED agreed, provided WSMR prepare and submit a revised Clean Closure Plan (see August 31, 1993 NMED letter in Appendix A). WSMR subsequently prepared and submitted the revised Clean Closure Plan (dated 3 December 1993) to the NMED for final approval. The plan stated that the additional soil samples would be collected and analyzed for TCLP concentrations of TCE in order to verify the validity of the previous TCLP results.

3.2 Follow-Up Investigation (January 1995)

Following approval of the revised Clean Closure Plan (dated 3 December 1993) by the NMED on 8 September 1994 (see September 8, 1994 NMED letter in Appendix A), WSMR initiated a follow-up investigation at the tank site during January 1995. A previous environmental contractor again performed investigative activities. Prior to sampling, the concrete floor of the evaporation tank was removed and disposed at the WSMR Sanitary Landfill. Photograph 3-4 depicts the site following removal of the tank floor. This action is summarized in the 3 December 1993 revised Clean Closure Plan.

Photograph 3-4.
Site following removal of tank floor (January 1995).

A total of 216 soil samples were collected from 108 locations within twelve 25 ft (7.6 m) deep soil borings. Samples were collected using a hollow stem auger drill rig equipped with a split spoon sampler containing brass liners. All samples were split and sent to two analytical laboratories for TCLP analysis for VOCs (i.e. TCE). Total VOC analysis was not requested. Analytical results did not detect any concentrations of TCE (or other VOCs) above the laboratory DL for TCLP. Copies of all analytical data can be found in Appendix C. Photograph 3-5 shows several of the completed soil boring locations.

Photograph 3-5. Several completed soil borings (January 1995).

WSMR formally submitted the results of the investigation to the NMED on 4 April 1995 as supplemental data to the 15 April 1993 closure report. This report was entitled *Final Hazardous Waste Storage Facility Evaporation Tank Closure*. A copy of the report is found in Appendix C. On 9 July 1996, the NMED again denied clean closure of the site due in the documented presence of TCE in the 1992 TCLP samples and also due to the lack of total TCE analysis during the January 1995 sampling event (see July 9, 1996 and December 2, 1997 NMED letters in Appendix A). Additionally, the NMED did not concur with the use of brass liners as sample containers because the liners were taken from different depths and thus the samples could not technically be called "split" samples.

4.0 CLEAN CLOSURE PLAN MODIFICATION

In response to the July 1996 denial by NMED, White Sands again requested an opportunity to demonstrate that clean closure was viable at the site. Following several verbal communications and meetings with NMED personnel, WSMR was granted a final opportunity to demonstrate clean closure at SWMU 90. WSMR subsequently prepared and submitted a revised closure plan entitled *Revision to the 3 December 1993 Sampling and Analysis Plan for the Clean Closure of the Hazardous Waste Storage Facility Evaporation Tank* (dated December 1998) to the NMED for review and comment (see December 16, 1998 WSMR letter in Appendix A). In addition to collecting soil samples beneath the former tank site for *total* TCE analysis, the plan additionally included a soil gas survey for volatile organic compounds (VOCs) at and surrounding the former tank site and sampling the four test wells at the HWSF for physical characteristics and VOCs. In accordance with the NMED-HWB position paper on TCLP Analysis (see April 10, 2001 NMED letter in Appendix A), TCLP analysis is not to be used for site characterization. Therefore, TCLP analysis was removed from the revised plan. Additionally at the request of the NMED, a threatened and endangered (T&E) species survey of the site was included in the revised plan.

In a letter dated December 6, 2000 (see Appendix A), the NMED indicated that the revised plan was "administratively complete" and a formal review of the document was forthcoming. On 10 April 2001, the NMED provided comments on the revised plan (see April 10, 2001 NMED letter in Appendix A). NMED comments were subsequently incorporated and re-submitted for final approval. The new title of the revised plan was *Modification to the Approved Clean Closure Plan for the Hazardous Waste Storage Facility Evaporation Tank (SWMU 90 / DSERTS 35)*. The revised plan was approved by the NMED on 23 July 2001. As part of the approval, NMED requested that closure activities be complete within 180 days. A copy of the approved Clean Closure Plan (dated June 2001) is found in Appendix D.

5.0 SUMMARY OF DECEMBER 2001 FIELD INVESTIGATION

Field sampling activities were performed during 12-19 December 2001. The T&E survey, soil gas survey, subsurface soil sampling, and groundwater sampling are summarized in the following sections. MEVATEC Corporation, WSMR's current environmental contractor (1995-present), performed all field activities.

5.1 Utility Clearances

Prior to the start of sampling activities, WSMR performed utility clearances at and surrounding the former tank location. Water, communication, and electrical (both overhead and subsurface) lines were identified within the area of investigation and were properly marked on the ground surface. A copy of the utility clearance form, with appropriate signatures, is found in Appendix E.

5.2 Threatened and Endangered Species Survey (5 December 2001)

On 5 December 2001, a T&E/biotic survey was performed at the HWSF by a qualified MEVATEC field biologist. This effort was undertaken to compile a species list and determine if

5.3.1 Soil Gas Survey (12-13 December 2001)

Magna Core Environmental (Dallas, TX) and Centrum Analytical Laboratories (Riverside, CA) were subcontracted to provide geoprobe and onsite analytical services. Phase 1a of the Clean Closure Plan required the collection of 30 soil gas samples from 10 ft (3.0 m) bgs at 30 specified locations at and surrounding the former tank location. Figure 5-1 presents the proposed configuration of the soil gas data points, as specified in the 2001 Clean Closure Plan. Twenty-seven of the proposed 30 samples were collected at locations specified in the 2001 Clean Closure Plan. Three sample locations (SG-27, SG-28, and SG-29) were moved because they were not accessible by the geoprobe. Figure 5-2 shows all actual soil gas sample locations.

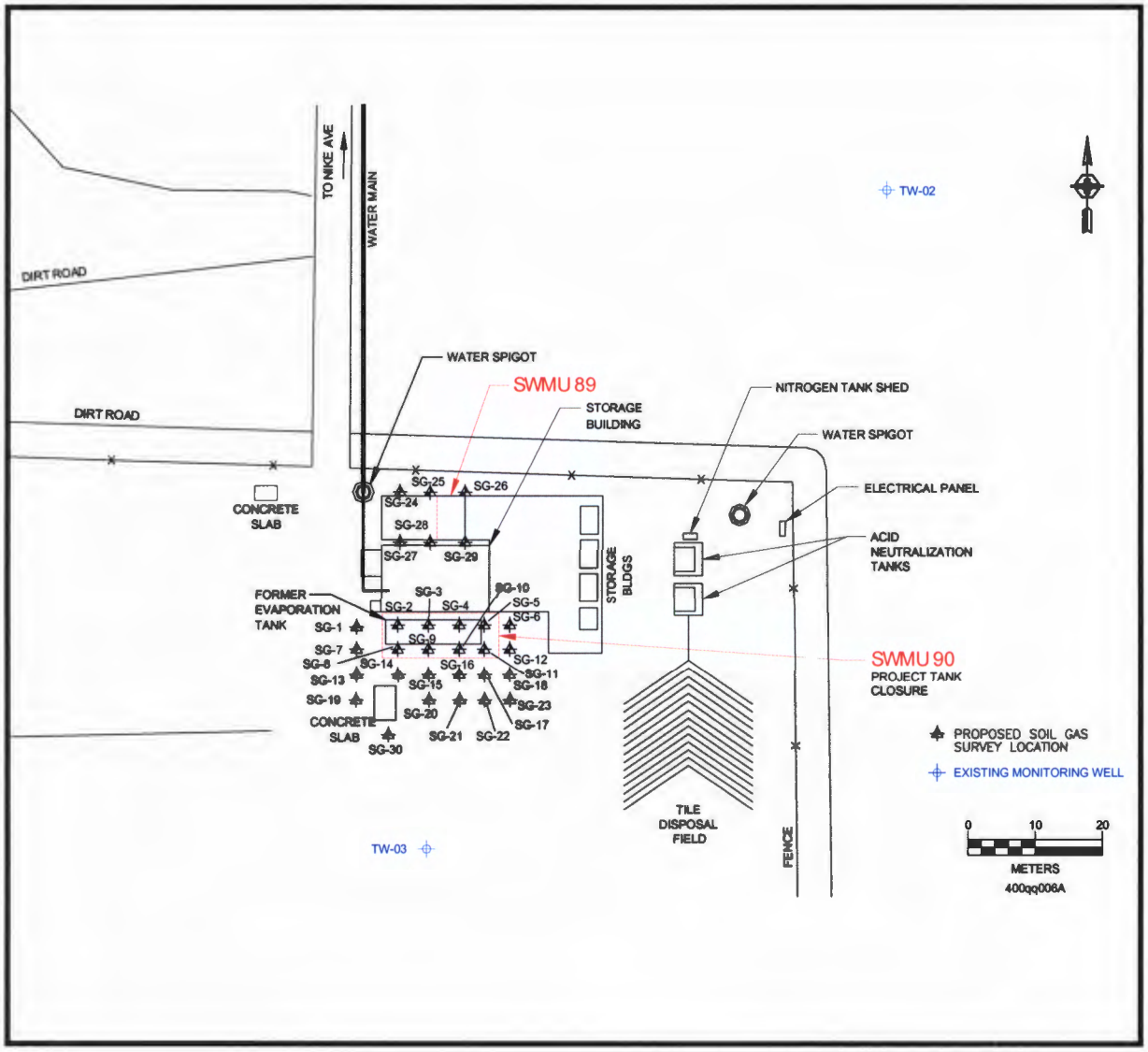


Figure 5-1.
Proposed Soil Gas Survey Sample Locations.

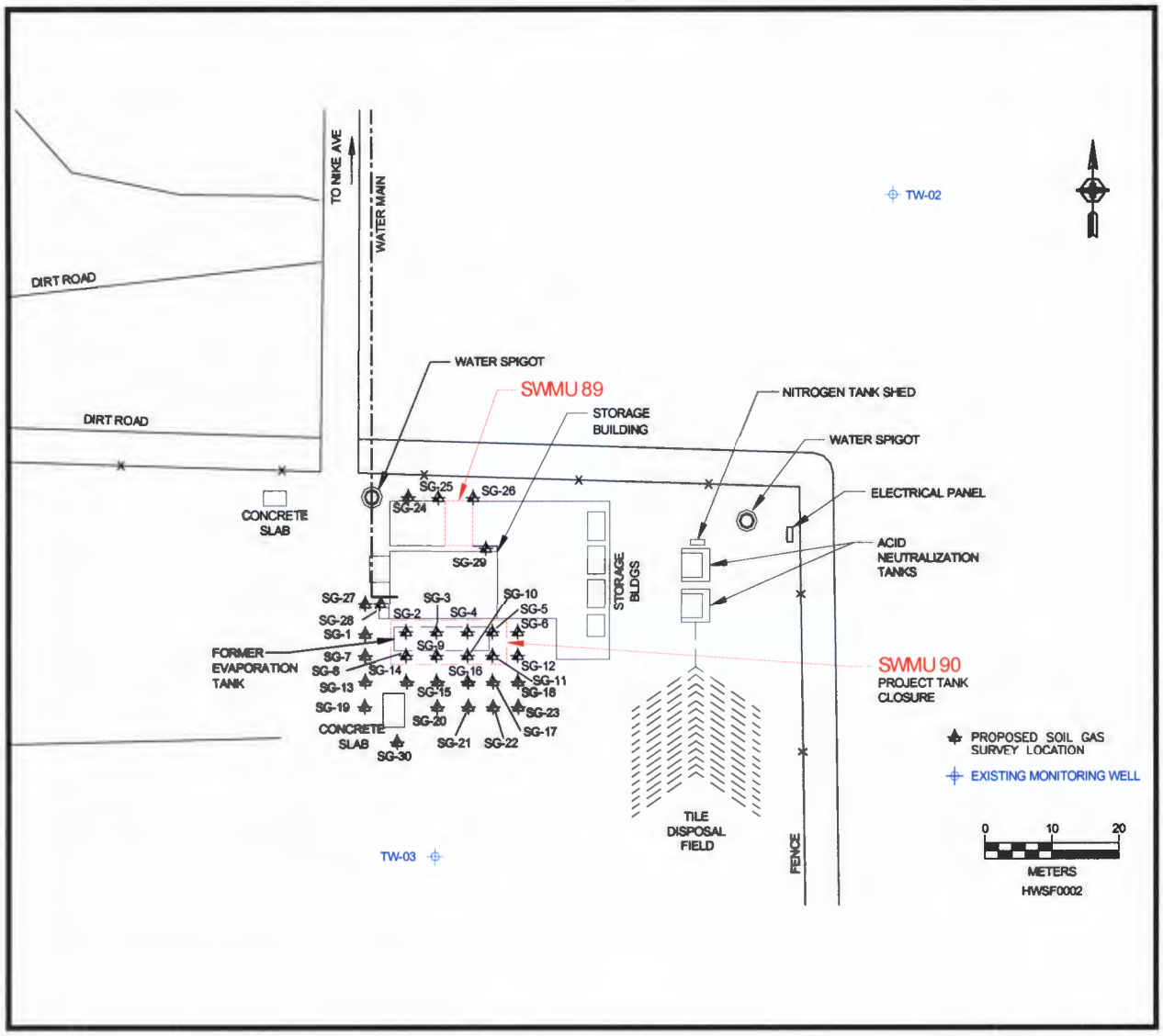


Figure 5-2.
Actual Soil Gas Survey Sample Locations.

To collect each soil gas sample, a 1.5 in. (3.8 cm) diameter hollow steel rod was "pushed" to a depth of 10 ft (3.0 m) bgs, then retracted 6 in. (15 cm) to create a void at the bottom of the boring. One-quarter in. (0.64 cm) diameter Teflon tubing was then inserted through the rod and screwed into the end of the rod at the bottom of the boring. A portable air pump and pre-cleaned 125 milliliter (mL) cylindrical glass sample container were attached to the Teflon tubing. The air pump was activated for 3 minutes, which sufficiently purged the Teflon tubing and sample container of all atmospheric air. Once the sample container was sufficiently purged, the valves on the sample container were closed, trapping the soil gas sample inside. Each sample container was given to the mobile laboratory technician for immediate VOC analysis by EPA Method 8260 using a gas chromatograph/mass spectrometer (GC/MS). All borings were backfilled with bentonite holeplug. Photographs 5-1 through 5-4 illustrate the soil gas sampling and analysis. Analytical results are discussed in Section 7.0.

Photograph 5-1.
Geoprobe and Mobile Laboratory (December 2001).

Photograph 5-2.
Collecting soil gas sample from SG02 (December 2001).

Photograph 5-3.
Mobile laboratory technician extracts soil gas from sample container (December 2001).

Photograph 5-4. Injecting soil gas sample into gas chromatograph (December 2001).

5.3.2 Subsurface Soil Sampling (17-19 December 2001)

Raba-Kistner, SW (El Paso, TX) was subcontracted to provide hollow-stem auger drilling services. Phase 1b of the Clean Closure Plan required the drilling and sampling of twelve, 25 ft (7.6 m) deep soil borings (see Photograph 5-5). The proposed locations of the soil borings, as specified in the 2001 Clean Closure Plan, are shown in Figure 5-3. There were no field modifications to the soil boring locations. Soil cuttings were placed in a double-lined 20 cubic yard (yd^3) [15.3 cubic meter (m^3)] rolloff bin for temporary storage until characterization was complete (see Section 5.5).

Photograph 5-5. Hollow Stem Auger Drill Rig (December 2001).

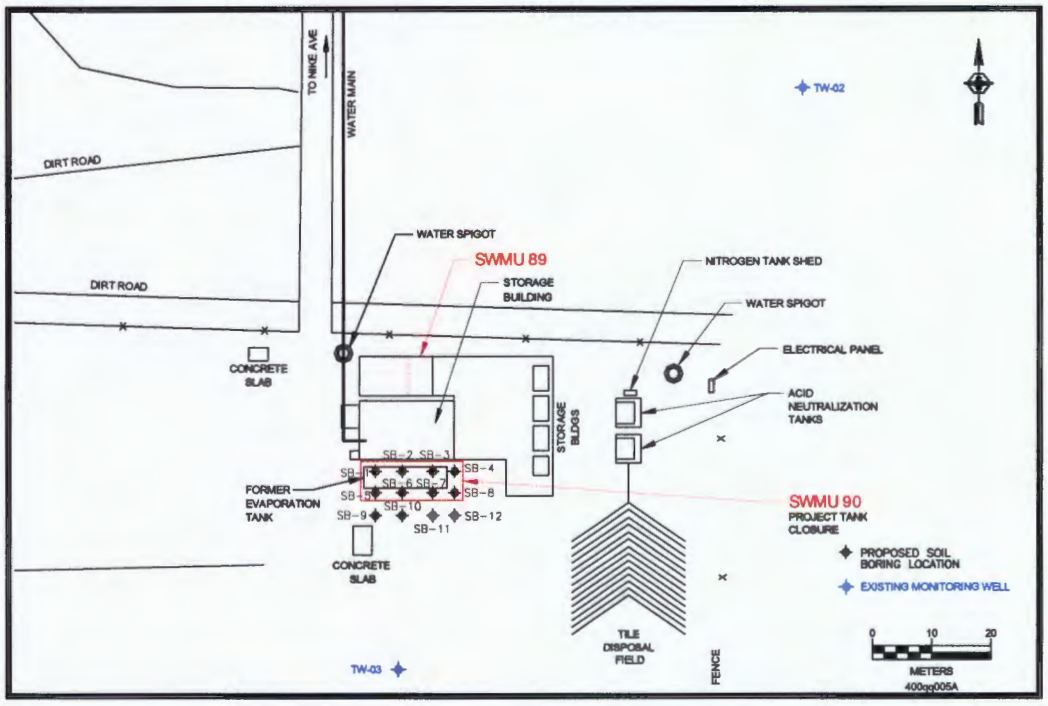


Figure 5-3. Soil Boring Locations.

Soil borings were drilled using 8 in. (20 cm) diameter hollow stem augers and samples were collected with a 2 ft (0.6 m) long, 2 in. (5.0 cm) diameter split spoon sampler. As required by the 2001 Clean Closure Plan, six samples were collected within each boring from the following depths: 0-2 ft (0-0.6 m), 2-4 ft (0.6-1.2 m), 4-6 ft (1.2-1.8 m), 10-12 ft (3.0-3.7 m), 18-20 ft (5.5-6.1 m), and 23-25 ft (7.0-7.6 m) bgs. All soil borings were backfilled with bentonite holeplug upon completion of sampling (see Photograph 5-6). Additionally, one out of every ten soil samples (10%) was split for quality assurance (QA) analysis (see Section 5.4.2). In total, 79 soil samples (72 primary samples and 7 QA samples) were collected and submitted for VOC analysis by EPA Method 8260.

Photograph 5-6. Abandoning soil borings with bentonite holeplug (December 2001).

Soil samples were placed in 4-ounce (oz) glass containers with Teflon-lined lids. For primary samples, the last 6 in. (15 cm) of soil core was transferred intact into the sample container and tightly packed (see Photograph 5-7). For QA samples, the last 12 in. (30 cm) of soil core was vertically divided and each half placed into separate 4 oz containers for shipment to two separate analytical laboratories (see Photograph 5-8, 5-9, and 5-10). Loose soil core material was used to fill voids in all containers. Primary soil samples were sent to PDP Analytical Services (The Woodlands, TX) and QA samples were sent to Assaigai Analytical Laboratories (Albuquerque, NM). Analytical results are summarized in Section 7.0. Both analytical laboratories are A2LA certified laboratories.

Photograph 5-7.
Collecting a soil sample for primary laboratory analysis (December 2001).

Photograph 5-8.
Collecting a soil sample for QA laboratory analysis (December 2001).

Photograph 5-9.
Collecting a soil sample for QA laboratory analysis (December 2001).

Photograph 5-10.
Collecting a soil sample for primary QA analysis (December 2001).

The onsite field engineer recorded the geology of each soil boring on a lithologic logsheet. Copies of all field lithologic logsheets are found in Appendix G. All soil cores removed from the subsurface were photographed for future reference (see Photograph 5-11). Lithologic soil samples were additionally collected from soil boring number SB09 for further description and storage in the WSMR Lithologic Library.

Photograph 5-11. Photographing a sample core (December 2001)

5.3.3 Groundwater Sampling (12-14 December 2001)

Phase 1c of the 2001 Clean Closure Plan required the collection of groundwater samples from each of the four test wells at the HWSF (TW01, TW02, TW03, and TW04). The locations of the wells are shown in Figure 5-4. Upon arrival at each well, depth to groundwater was measured using a properly decontaminated electronic water level indicator. Historical total well depth data was used to calculate water column volume. The volume of the water column was then calculated and approximately five well volumes were purged using a Stage II Grundfos hydraulic submersible pump. Purge water was stored onsite in 55 gallon (gal) [208 liter (L)] drums until characterization was complete (see Section 5.5). Well purging is presented in Photograph 5-12. Physical parameters were measured using a calibrated Hydac™ water quality meter and recorded in the project logbook at specific intervals throughout purging. Tables 5-2 and 5-3 summarize the construction of each well, volume removed during sampling, weather conditions during sampling, and physical parameters at the time each groundwater sample was collected.

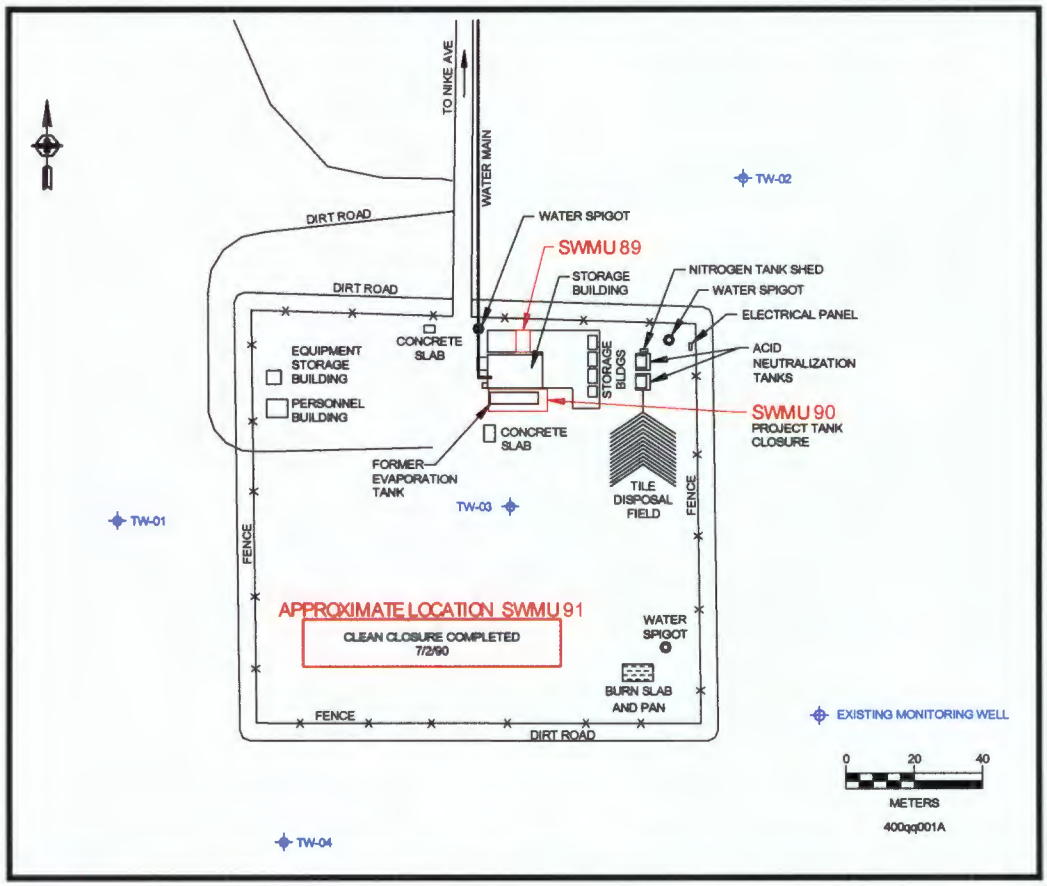


Figure 5-4. Groundwater Well Locations.

Photograph 5-12. Purging groundwater from test well TW04 (December 2001).

Table 5-2. Test Well Construction Data.

Well Number [1]	Location	Date Drilled	Elevation of Land Surface	Casing Diameter and Material	Screen Interval (bgs) [2]	Depth to Ground Water (bgs)	Total Depth (bgs)	Date Measured
TW01	22S.06E.16.233	July 1983	4031.81 ft (1228.9 m)	4 in. PVC [3] (10.1 cm)	225-285 ft (68.6-86.9 m)	229.40 ft (69.9 m)	285 ft (86.9 m)	12/12/01
TW02	22S.06E.16.234	Aug. 1983	4038.22 ft (1230.8 m)	4 in. PVC (10.1 cm)	225-285 ft (68.6-86.9 m)	235.85 ft (71.9 m)	285 ft (86.9 m)	12/14/01
TW03	22S.06E.16.234A	Oct. 1983	4037.19 ft (1230.5 m)	4 in. PVC (10.1 cm)	230-270 ft (70.1-82.3 m)	234.29 ft (71.4 m)	290 ft (88.4 m)	12/12/01
TW04	22S.06E.16.412	Sept. 1989	4036.50 ft (1230.3 m)	6 in. PVC (15.2 cm)	327-387 ft (99.7-118.0 m)	233.06 ft (71.0 m)	407 ft (124.1 m)	12/13/01

Notes: [1] : Well locations are indicated on Figure 5-4.
[2] : bgs – below ground surface
[3] : PVC – polyvinyl chloride

Table 5-3.
Ambient Weather Conditions and Field Groundwater Quality Measurements.

Well Number [1]	Sampling Date	Ambient Weather Conditions	Volume Purged	Water Temperature	pH	Conductivity (µS/m) [2]	Turbidity (Visual)
TW01	12/12/01	Cloudy, 40 °F[3] (4.4 °C[4]), windy (> 30 mph gusts)	180 gal (681 L)	68.3	6.84	Off Scale	Clear
TW02	12/14/01	Clear, 50 °F (10 °C), slight breeze	155 gal (587 L)	62.8	6.79	Off Scale	Clear
TW03	12/12/01	Cloudy, 40 °F (4.4 °C), windy (> 30 mph gusts)	180 gal (681 L)	63.8	6.84	Off Scale	Clear
TW04	12/13/01	Clear, 40 °F (4.4 °C), slight breeze	1100 gal (4164 L)	63.1	7.04	Off Scale	Clear

Notes: [1] : Well locations are indicated on Figure 5-4.
[2] : µS/cm – microsiemens per centimeter
[3] : °F – degrees Fahrenheit
[4] : °C – degrees Celsius

Sufficient groundwater was collected from each well for VOC (EPA Method 8260), pH (EPA Method 150.1), specific conductivity (EPA Method 120.1), and total dissolved solids analysis (TDS, EPA Method 160.1) (see Photograph 5-13). Samples were shipped to PDP Analytical Services (The Woodlands, TX). Additionally, the groundwater sample collected from TW03 was split and sent to Assaigai Analytical Laboratories (Albuquerque, NM) for identical analysis. Analytical results are summarized in Section 7.0.

Photograph 5-13. Sampling groundwater from test well TW04 (December 2001).

5.4 Quality Assurance/Quality Control Procedures

5.4.1 Equipment Decontamination Procedures

In accordance with the 2001 Clean Closure Plan, all sampling equipment was decontaminated prior to and following each use. The drill rig and hollow stem augers were cleaned using a high pressure steam washer. Direct soil sampling equipment (to include Geoprobe rods, split spoon samplers, trowels, bowls, etc.) were triple rinsed, first in a liquinox-tap water bath, then rinsed with distilled water, and final rinsed with de-ionized water (see Photograph 5-14). The submersible pump used to collect groundwater samples was decontaminated by running a liquinox-tap water solution through the pump and hose, followed by a distilled and de-ionized water rinse. Clean sampling equipment was used at all sample collection locations. To ensure proper decontamination procedures, an equipment blank was collected following at the completion of groundwater sampling at test well TW04 (sample ID: HWSF-TW04-1201-RB) and following soil sampling at soil boring SB06 (sample ID: HWSF-SB06-EB).

Photograph 5-14. Decontaminating split spoon sampler (December 2001).

5.4.2 Quality Assurance and Quality Control Samples

5.4.2.1 Quality Assurance (Duplicate) Samples

As stated in Section 5.3 above, QA samples were collected during soil and groundwater sampling activities. The frequency of QA sample collection was one in ten (10%) for soils and one in four (25%) for groundwater. In total, seven soil samples and one groundwater sample were additionally collected for QA analysis. The analytical results of each QA sample are presented in Section 7.0.

5.4.2.2 Quality Control Samples

Two types of quality control (QC) samples were analyzed: field-generated QC samples and laboratory-generated QC samples. Field-generated QC samples consisted of two equipment blanks (HWSF-TW04-1201-RB and HWSF-SB06-EB) and two samples of tap water used during decontamination procedures (HWSF-TapWater-1201 and HWSF-SB06-Tap Water). The purpose for the field-generated QC samples was to determine if the sample crew was properly decontaminating the sampling equipment and to determine if any contaminants were being introduced into the samples via the tap water used during decontamination procedures. Laboratory-generated QC samples consisted of trip blanks that accompanied all VOC samples

(which are identified with a "-TB" signifier) and random internal laboratory sample splits (which are identified with a "-RA" signifier). The purpose of the laboratory-generated QC samples was two-fold: 1) to determine if any outside VOC contaminant had infiltrated the samples and 2) to verify the accuracy of the laboratory sampling equipment. The analytical results of each QC sample are presented in Section 7.0.

5.4.3 Sample Labeling

Each soil and groundwater sample was individually labeled with a unique sample identification number. Soil gas samples were identified as follows:

"HWSF-SGxx-10"

Where: HWSF = Hazardous Waste Storage Facility
SG = Soil Gas
xx = 01, 02, 03, etc.
10 = sample depth (i.e. 10 ft bgs)

Soil samples were identified as follows:

"HWSF-SBxx-(yy.y-zz.z)"

Where: HWSF = Hazardous Waste Storage Facility
SB = Soil Boring
xx = Soil boring number (i.e. 01, 02, 03, etc.)
yy.y – zz.z = Sample collection interval in feet bgs
Note: A "-QA" signifier was added to the sample identification for all QA samples.

Groundwater samples were identified as follows:

"HWSF-TWxx-1201"

Where: HWSF = Hazardous Waste Storage Facility
TW= Test well
xx = Test well number (i.e. 01, 02, 03, 04)
1201= December 2001
Note: A "-QA" signifier was added to the sample identification for the QA sample.

QC samples were uniquely identified as discussed in Section 5.4.2.2.

5.4.4 Chain of Custody Procedures

All samples collected remained in the custody of the sample collector until shipment. Standard chain of custody procedures were used throughout the project. Copies of all chains of custody are included with the analytical data (see Appendices H, I, and J).

5.4.5 Sample Packing and Shipment

All soil and groundwater samples were immediately packed in coolers with ice for shipment. Soil gas samples did not require shipment as analysis was performed onsite. Samples sent to PDP Analytical Services were shipped via Federal Express for next-day delivery. A laboratory courier picked up samples for Assaigai Analytical Laboratories.

5.5 Waste Characterization and Disposal

Three waste streams were produced during sampling: soil cuttings, purge water from groundwater sampling, and equipment decontamination water. Soil cuttings generated during hollow-stem auger drilling were containerized in a double-lined 20 yd^3 (15.3 m^3) rolloff bin. Purge water generated during groundwater sampling activities and decontamination water generated soil gas survey and hollow-stem auger activities were containerized in 55-gal (208 L) bung-type drums. All waste containers remained onsite until characterization was complete.

Waste characterization consisted of reviewing the analytical data from the soil and groundwater investigations to determine if the soil or groundwater investigated contained chemicals that exceeded health-based screening levels. As shown in analytical data (see Section 7.0), all soil and groundwater from the investigation was determined to be non-hazardous and disposed as such. Groundwater and purge water were disposed through the WSMR Hazardous Materials Minimization Center. Soil cuttings were disposed at the City of Las Cruces Waste Transfer Station. A copy of the soil cuttings waste manifest is attached as Appendix K. (Note: A non-hazardous waste manifest form was unavailable, so a hazardous waste manifest form was used instead.)

5.6 Site Restoration

During February 2002, the WSMR Installation Support Directorate hauled clean backfill material to the site and graded the former evaporation tank location to promote positive drainage away from Building 22895. Photographs 5-15 and 5-16 depict site restoration activities.

No photograph available.

Photograph 5-15. Site restoration.

No photograph available.

Photograph 5-16. Site condition following site restoration

6.0 NON-CONFORMANCES WITH CLEAN CLOSURE PLAN

6.1 Detection Levels During Soil Gas Survey

Phase 1a of the 2001 Clean Closure Plan states that soil gas samples will be analyzed by GC/MS capable of reaching a DL of 0.1 micrograms per liter (μg/L). During procurement of a mobile laboratory vendor, it was determined that the industry-wide method detection limit (MDL) for a mobile laboratory is typically 1.0 μg/L for EPA Method 8260 compounds. The required MDL of 0.1 μg/L was unachievable. Therefore, on 6 November 2001, the WSMR Project Manager, Ms. Robin Paul, contacted the NMED-HWB Project Manager, Ms. Cheryl Frishkorn, to request that the MDL for the soil gas survey be raised to 1.0 μg/L or as appropriate. Ms. Frishkorn stated that since the data gathered during the soil gas survey was to be used only as a site screening tool, then the screening level may be raised to a more practical level.

6.2 Notification of Sampling Schedule

Additionally during the 6 November 2001 telephonic conversation between WSMR and NMED, Ms. Paul verbally notified Ms. Frishkorn of the intended sampling dates and inquired if formal written notification was still required (in lieu of the verbal notification). Ms. Frishkorn stated that the verbal notification was sufficient. Therefore, WSMR did not submit a formal written notification of the intended sampling dates to NMED.

6.3 Location of Soil Gas Survey Data Points

Three soil gas survey locations (SG-27, SG-28, and SG-29) were adjusted because they were located in an area inaccessible by the geoprobe. Figure 5-2 indicates the actual locations of the three soil gas data points.

6.4 Submittal of Closure Report

In its approval letter of the 2001 Clean Closure Plan, the NMED requested that the closure report (this document) be submitted within 180 days from 23 July 2001. WSMR could not meet the 180-day deadline due to an extended delay in procurement of a mobile laboratory for the proposed soil gas survey, as required by Phase 1a of the approved 2001 Clean Closure Plan (reference Section 6.1). Five mobile laboratories were contacted to perform the work. Four of the mobile laboratories were not interested in performing the work due to the small size of the job and the sole responding mobile laboratory was not available until 12 December 2001. WSMR submitted a letter requesting a 45-day continuance to the NMED on 9 January 2002 (see Appendix A). The NMED subsequently granted a 45-day continuance for submittal of the closure report (see 22 January 2002 NMED letter in Appendix A).

6.5 Volume of Groundwater Purged from TW04

Phase 1c of the 2001 Clean Closure Plan stated that the purging of all wells will continue until at least five well volumes are removed and the field water quality parameters are stable. The five well volume purge requirement for TW04 was 1,269 gal (4,803 L). However, at the 1,100 gal (4,163 L) purged interval, water quality parameters appeared to sufficiently stabilize. The onsite field engineer determined that purging requirements were sufficiently met and groundwater sampling was initiated. A copy of the groundwater sampling field notes is found in Appendix F.

7.0 ANALYTICAL RESULTS

7.1 Soil Gas Survey

No VOCs were detected above the laboratory DL at any of the 30 soil gas survey sample points. A copy of the analytical data from the soil gas survey is found in Appendix H. Analytical results for the soil gas survey are summarized in Table 7-1 on the following page.

7.2 Soil Sample Results

Generally, there was no detection of any VOCs above the laboratory DL in all primary and QA samples. However there were a few exceptions. Two TCE detections [0.0032 J and 0.0033 J milligrams per kilogram (mg/kg)] were found in soil boring SB04 at a depth of 3.5-4.0 ft (1.0-1.2 m) bgs and soil boring SB09 at a depth of 19.5-20.0 ft (5.9-6.0 m) bgs, respectively. These two concentrations were "J flagged" by the laboratory because the results are estimates below the DL. These concentrations are almost four magnitudes less than the NMED SSL for a residential exposure scenario of 16.0 mg/kg (NMED, 2000). Additionally, no TCE daughter products (i.e. 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethene, *cis*-1,2-dichloroethene, *trans*-1,2-dichloroethene, and vinyl chloride) were detected in any of the samples collected. There were, however, several other various VOC detections that were above the laboratory DL but several orders of magnitude below the NMED SSL for a residential exposure scenario. These compounds include bromodichloromethane, bromoform, chloroform, dibromochloromethane, toluene, and methylene chloride (MeCl). Copies of all soil sample analytical data are found in Appendices I and J. Analytical results for all soil samples are summarized in Table 7-2.

Table 7-1.
Hazardous Waste Storage Facility Evaporation Tank Closure Investigation Soil Gas Survey Results

Analyte List for EPA Method 8260	Sample Identification Number [1]									
	HWSF-SG01-10 (µg/L) [2]	HWSF-SG02-10 (µg/L)	HWSF-SG03-10 (µg/L)	HWSF-SG04-10 (µg/L)	HWSF-SG05-10 (µg/L)	HWSF-SG06-10 (µg/L)	HWSF-SG07-10 (µg/L)	HWSF-SG08-10 (µg/L)	HWSF-SG09-10 (µg/L)	HWSF-SG10-10 (µg/L)
Sample Date	**12-12-01**	**12-12-01**	**12-13-01**	**12-13-01**	**12-13-01**	**12-13-01**	**12-12-01**	**12-12-01**	**12-12-01**	**12-12-01**
Sample Time	**1001**	**1150**	**1203**	**1227**	**1300**	**0839**	**1025**	**1217**	**1355**	**1420**
Acetone	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
t-Amyl-methyl-ether (TAME)	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromochloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Butanone (MEK)	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
t-Butyl alcohol (TBA)	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
n-Butylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
sec-Butylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon disulfide	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Carbon tetrachloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Chlorotoluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-Chlorotoluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-chloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromomethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethyl-t-butyl ether (ETBE)	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Hexachlorobutadiene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Hexanone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Isopropylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Diisopropyl ether (DIPE)	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
p-Isopropyltoluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene chloride	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
4-Methyl-2-pentanone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Methyl-tert-butyl-ether (MTBE)	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Naphthalene	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
n-Propylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorotrifluromethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
m,p-Xylenes	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
o-Xylene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Notes: [1]: Sample identification as appears on analytical results.
[2]: µg/L – micrograms per liter

Table 7-1.
Hazardous Waste Storage Facility Evaporation Tank Closure Investigation Soil Gas Survey Results
continued

Analyte List for EPA Method 8260	Sample Identification Number [1]									
	HWSF-SG11-10 (µg/L) [2]	HWSF-SG12-10 (µg/L)	HWSF-SG13-10 (µg/L)	HWSF-SG14-10 (µg/L)	HWSF-SG15-10 (µg/L)	HWSF-SG16-10 (µg/L)	HWSF-SG17-10 (µg/L)	HWSF-SG18-10 (µg/L)	HWSF-SG19-10 (µg/L)	HWSF-SG20-10 (µg/L)
Sample Date	**12-12-01**	**12-12-01**	**12-12-01**	**12-12-01**	**12-12-01**	**12-12-01**	**12-13-01**	**12-13-01**	**12-12-01**	**12-13-01**
Sample Time	**1450**	**1510**	**1045**	**1540**	**1602**	**1632**	**0815**	**0913**	**1115**	**1007**
Acetone	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
t-Amyl-methyl-ether (TAME)	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromochloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Butanone (MEK)	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
t-Butyl alcohol (TBA)	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
n-Butylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
sec-Butylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon disulfide	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Carbon tetrachloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Chlorotoluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-Chlorotoluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-chloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromomethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethyl-t-butyl ether (ETBE)	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Hexachlorobutadiene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Hexanone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Isopropylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Diisopropyl ether (DIPE)	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
p-Isopropyltoluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene chloride	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
4-Methyl-2-pentanone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Methyl-tert-butyl-ether (MTBE)	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Naphthalene	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
n-Propylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorotrifluromethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
M,p-Xylenes	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
o-Xylene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Notes: [1]: Sample identification as appears on analytical results.
[2]: µg/L – micrograms per liter

Table 7-1.
Hazardous Waste Storage Facility Evaporation Tank Closure Investigation Soil Gas Survey Results
concluded

Analyte List for EPA Method 8260	Sample Identification Number [1]									
	HWSF-SG21-10 (µg/L) [2]	HWSF-SG22-10 (µg/L)	HWSF-SG23-10 (µg/L)	HWSF-SG24-10 (µg/L)	HWSF-SG25-10 (µg/L)	HWSF-SG26-10 (µg/L)	HWSF-SG27-10 (µg/L)	HWSF-SG28-10 (µg/L)	HWSF-SG29-10 (µg/L)	HWSF-SG30-10 (µg/L)
Sample Date	**12-13-01**	**12-13-01**	**12-13-01**	**12-13-01**	**12-13-01**	**12-13-01**	**12-13-01**	**12-13-01**	**12-13-01**	**12-13-01**
Sample Time	**1028**	**1051**	**0947**	**1324**	**1348**	**1418**	**1517**	**1540**	**1445**	**1120**
Acetone	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
t-Amyl-methyl-ether (TAME)	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromochloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Butanone (MEK)	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
t-Butyl alcohol (TBA)	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
n-Butylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
sec-Butylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon disulfide	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Carbon tetrachloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Chlorotoluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-Chlorotoluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-chloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromomethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethyl-t-butyl ether (ETBE)	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Hexachlorobutadiene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Hexanone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Isopropylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Diisopropyl ether (DIPE)	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
p-Isopropyltoluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene chloride	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
4-Methyl-2-pentanone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Methyl-tert-butyl-ether (MTBE)	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Naphthalene	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
n-Propylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorotrifluromethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
M,p-Xylenes	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
o-Xylene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Notes: [1]: Sample identification as appears on analytical results.
[2]: µg/L – micrograms per liter

Table 7-2.
Hazardous Waste Storage Facility Evaporation Tank Closure Investigation Soil Sampling Results

Analyte List for EPA Method 8260 (Volatile Organic Compounds)	Soil Screening Levels for Residential Human Exposure Scenario		Dilution Attenuation Factors (DAF) for Soil Contaminant Migration to Groundwater		Sample Identification Number [4]						
	NMED HWB/GWQB SSLs [1] (mg/kg) [2]	EPA, Region IX PRGs [3] (mg/kg)	NMED DAF 1 (mg/kg)	EPA, Region IX DAF 1 (mg/kg)	HWSF-SB01-(1.5-2.0) (mg/kg)	HWSF-SB01-(3.5-4.0) (mg/kg)	HWSF-SB01-(5.5-6.0) (mg/kg)	HWSF-SB01-(11.0-12.0) (mg/kg)	HWSF-SB01-(11.0-12.0)-QA (mg/kg)	HWSF-SB01-(19.5-20.0) (mg/kg)	HWSF-SB01-(19.5-20.0) RA1 [5] (mg/kg)
Sample Date					12-19-01	12-19-01	12-19-01	12-19-01	12-19-01	12-19-01	--
Sample Time					1538	1548	1552	1600	1600	1620	--
1,1,1,2-Tetrachloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
1,1,1-Trichlorethane	510.0	630.0	0.003	0.1	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
1,1,2,2-Tetrachloroethane	3.6	0.38	0.002	0.0002	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
1,1,2-Trichloroethane	7.9	0.84	0.003	0.0009	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
1,1-Dichloroethane	560.0	590.0	0.007	1.0	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
1,1-Dichloroethene	8.1	0.054	0.003	0.003	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
1,1-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	--	<0.006	<0.006
1,2,3-Trichlorobenzene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	--	<0.006	<0.006
1,2,3-Trichloropropane	Not listed.	0.0014	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
1,2,4-Trichlorobenzene	520.0	650.0	0.5	0.3	<0.0054	<0.0056	<0.0058	<0.0053	--	<0.006	<0.006
1,2,4-Trimethylbenzene	Not listed.	52.0	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
1,2-Dibromo-3-chloropropane	Not listed.	0.45	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	--	<0.006	<0.006
1,2-Dibromoethane	0.053	0.0063	0.00002	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
1,2-Dichlorobenzene	85.0	370.0	0.4	0.9	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
1,2-Dichloroethane	3.3	0.35	0.001	0.001	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
1,2-Dichloropropane	Not listed.	0.35	Not listed.	0.001	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
1,3,5-Trimethylbenzene	Not listed.	21.0	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
1,3-Dichlorobenzene	12.0	13.0	0.004	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
1,3-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	--	<0.006	<0.006
1,4-Dichloro-2-butene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	--	<0.05	--	--
1,4-Dichlorobenzene	32.0	3.4	0.08	0.1	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
1-Chlorohexane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	--	<0.006	<0.006
2,2-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	--	<0.006	<0.006
2-Butanone	37000.0	Not listed.	0.3	Not listed.	<0.011	<0.011	<0.012	<0.011	<0.025	<0.012	<0.012
2-Chloroethyl vinyl ether	Not listed.	No value.	Not listed.	Not listed.	<0.011	<0.011	<0.012	<0.011	<0.025	<0.012	<0.012
2-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	--	<0.006	<0.006
2-Hexanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.011	<0.011	<0.012	<0.011	<0.025	<0.012	<0.012
4-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	--	<0.006	<0.006
4-Methyl-2-pentanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.011	<0.011	<0.012	<0.011	<0.025	<0.012	<0.012
1-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	--	<0.025	--	--
2-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	--	<0.025	--	--
Acetone	Not listed.	1,600.0	Not listed.	0.8	<0.011	<0.011	<0.012	<0.011	<0.05	<0.012	<0.012
Acrolein	0.09	0.1	0.000008	Not listed.	--	--	--	--	<0.1	--	--
Acrylonitrile	1.9	0.21	0.00007	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	<0.1	<0.006	<0.006
Benzene	6.4	0.65	0.003	0.002	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
Bromobenzene	Not listed.	28.0	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	--	<0.006	<0.006
Bromochloromethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	--	<0.006	<0.006
Bromodichloromethane	9.6	1.0	0.03	0.03	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
Bromoform	Not listed.	62.0	Not listed.	0.04	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
Bromomethane	3.7	3.9	0.002	0.01	<0.0054	<0.0056	<0.0058	<0.0053	<0.025	<0.006	<0.006
Carbon disulfide	Not listed.	360.0	Not listed.	2.0	<0.0054	<0.0056	<0.0058	<0.0053	<0.025	<0.006	<0.006
Carbon tetrachloride	1.6	0.24	0.005	0.003	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
Chlorobenzene	140.0	150.0	0.05	0.07	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
Chloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	<0.025	<0.006	<0.006
Chloroform	0.38	0.24	0.03	0.03	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
Chloromethane	12.0	1.2	0.0005	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	<0.025	<0.006	<0.006
cis-1,2-Dichloroethene	41.0	43.0	0.02	0.02	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
cis-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
Dibromochloromethane	Not listed.	1.1	Not listed.	0.02	<0.0054	<0.0056	<0.0058	<0.0053	--	<0.006	<0.006
Dibromomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
Dichlorodifluoromethane	90.0	94.0	6.0	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	--	<0.006	<0.006
Ethyl benzene	68.0	230.0	0.4	0.7	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
Ethyl methacrylate	Not listed.	140.0	Not listed.	Not listed.	--	--	--	--	<0.025	--	--
Freon 113	Not listed.	5600.0	Not listed.	Not listed.	--	--	--	--	<0.035	--	--
Freon 12	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	--	<0.05	--	--
Hexachlorobutadiene	12.0	6.2	0.07	0.1	<0.0054	<0.0056	<0.0058	<0.0053	--	<0.006	<0.006
Iodomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	<0.025	<0.006	<0.006
Isopropylbenzene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	--	<0.006	<0.006
Methyl-t-Butylether	Not listed.	17.0	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
Methylene Chloride	Not listed.	8.9	Not listed.	0.001	<0.0054	<0.0056	<0.0058	<0.0053	<0.05	<0.006	<0.006
n-Butylbenzene	Not listed.	140.0	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	--	<0.006	<0.006
n-Propylbenzene	Not listed.	140.0	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	--	<0.006	<0.006
Naphthalene	53.0	56.0	0.01	4.0	<0.0054	<0.0056	<0.0058	<0.0053	<0.025	<0.006	<0.006
p-Isopropyltoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	--	<0.006	<0.006
sec-Butylbenzene	Not listed.	110.0	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	--	<0.006	<0.006
Styrene	Not listed.	1700.0	Not listed.	0.2	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
Tert-Butylbenzene	Not listed.	130.0	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	--	<0.006	<0.006
Tetrachloroethene	49.0	5.7	0.005	0.003	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
Toluene	180.0	520.0	0.2	0.6	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
trans-1,2-Dichloroethene	60.0	63.0	0.02	0.03	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
trans-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
Trichloroethene	16.0	2.8	0.04	0.003	<0.0054	<0.0056	<0.0058	<0.0053	<0.005	<0.006	<0.006
Trichlorofluoromethane	Not listed.	390.0	Not listed.	Not listed.	<0.0054	<0.0056	<0.0058	<0.0053	<0.025	<0.006	<0.006
Vinyl acetate	Not listed.	430.0	Not listed.	8.0	<0.0054	<0.0056	<0.0058	<0.0053	<0.025	<0.006	<0.006
Vinyl chloride	0.21	0.15	0.0004	0.0007 (child)	<0.0054	<0.0056	<0.0058	<0.0053	<0.01	<0.006	<0.006
o-Xylene	63.0 (Total)	210.0 (Total)	5.0 (Total)	10.0 (total)	--	--	--	--	<0.005	--	--
p/m-Xylene					--	--	--	--	<0.01	--	--
Xylene (total)					<0.0054	<0.0056	<0.0058	<0.0053	--	<0.006	<0.006

Notes:
(1): New Mexico Environment Department Hazardous Waste Bureau & Ground Water Quality Bureau Voluntary Remediation Program Soil Screening Levels, 18 December 2001
(2): Environmental Protection Agency, Region IX Residential Preliminary Remediation Goals, 1 November 2000 edition
(3): mg/kg – milligrams per kilogram
(4): Sample identification as appears on analytical results.
(5): Internal primary laboratory duplicate of soil sample HWSF-SB01-(19.5-20.0).

Table 7-2.
Hazardous Waste Storage Facility Evaporation Tank Closure Investigation Soil Sampling Results
continued

Analyte List for EPA Method 8260 (Volatile Organic Compounds)	Soil Screening Levels for Residential Human Exposure Scenario		Dilution Attenuation Factors (DAF) for Soil Contaminant Migration to Groundwater		Sample Identification Number [4]						
	NMED HWB/GWQB SSLs [1] (mg/kg) [2]	EPA, Region IX PRGs [3] (mg/kg)	NMED DAF 1 (mg/kg)	EPA, Region IX DAF 1 (mg/kg)	HWSF-SB01-(24.5-25.0) (mg/kg)	HWSF-SB01-(24.5-25.0) RA1 [5] (mg/kg)	HWSF-SB02-(1.5-2.0) (mg/kg)	HWSF-SB02-(3.5-4.0) (mg/kg)	HWSF-SB02-(5.5-6.0) (mg/kg)	HWSF-SB02-(11.5-12.0) (mg/kg)	HWSF-SB02-(19.5-20.0) (mg/kg)
Sample Date					12-19-01	--	12-19-01	12-19-01	12-19-01	12-19-01	12-19-01
Sample Time					1635	--	1408	1416	1420	1430	1447
1,1,1,2-Tetrachloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
1,1,1-Trichlorethane	510.0	630.0	0.003	0.1	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
1,1,2,2-Tetrachloroethane	3.6	0.38	0.002	0.0002	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
1,1,2-Trichloroethane	7.9	0.84	0.003	0.0009	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
1,1-Dichloroethane	560.0	590.0	0.007	1.0	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
1,1-Dichloroethene	8.1	0.054	0.003	0.003	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
1,1-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
1,2,3-Trichlorobenzene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
1,2,3-Trichloropropane	Not listed.	0.0014	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
1,2,4-Trichlorobenzene	520.0	650.0	0.5	0.3	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
1,2,4-Trimethylbenzene	Not listed.	52.0	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
1,2-Dibromo-3-chloropropane	Not listed.	0.45	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
1,2-Dibromoethane	0.053	0.0063	0.00002	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
1,2-Dichlorobenzene	85.0	370.0	0.4	0.9	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
1,2-Dichloroethane	3.3	0.35	0.001	0.001	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
1,2-Dichloropropane	Not listed.	0.35	Not listed.	0.001	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
1,3,5-Trimethylbenzene	Not listed.	21.0	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
1,3-Dichlorobenzene	12.0	13.0	0.004	Not listed.	<0.0053	<0.0053	<0.0056	--	--	--	--
1,3-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
1,4-Dichloro-2-butene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	<0.0055	<0.0056	<0.0053	<0.0056
1,4-Dichlorobenzene	32.0	3.4	0.08	0.1	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
1-Chlorohexane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
2,2-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
2-Butanone	37000.0	Not listed.	0.3	Not listed.	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011
2-Chloroethyl vinyl ether	Not listed.	No value.	Not listed.	Not listed.	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011
2-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
2-Hexanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011
4-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
4-Methyl-2-pentanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011
1-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	--	--	--	--
2-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	--	--	--	--
Acetone	Not listed.	1,600.0	Not listed.	0.8	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011
Acrolein	0.09	0.1	0.000008	Not listed.	--	--	--	--	--	--	--
Acrylonitrile	1.9	0.21	0.00007	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Benzene	6.4	0.65	0.003	0.002	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Bromobenzene	Not listed.	28.0	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Bromochloromethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Bromodichloromethane	9.6	1.0	0.03	0.03	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Bromoform	Not listed.	62.0	Not listed.	0.04	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Bromomethane	3.7	3.9	0.002	0.01	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Carbon disulfide	Not listed.	360.0	Not listed.	2.0	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Carbon tetrachloride	1.6	0.24	0.005	0.003	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Chlorobenzene	140.0	150.0	0.05	0.07	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Chloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Chloroform	0.38	0.24	0.03	0.03	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Chloromethane	12.0	1.2	0.0005	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
cis-1,2-Dichloroethene	41.0	43.0	0.02	0.02	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
cis-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Dibromochloromethane	Not listed.	1.1	Not listed.	0.02	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Dibromomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Dichlorodifluoromethane	90.0	94.0	6.0	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Ethyl benzene	68.0	230.0	0.4	0.7	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Ethyl methacrylate	Not listed.	140.0	Not listed.	Not listed.	--	--	--	--	--	--	--
Freon 113	Not listed.	5600.0	Not listed.	Not listed.	--	--	--	--	--	--	--
Freon 12	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	--	--	--	--
Hexachlorobutadiene	12.0	6.2	0.07	0.1	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Iodomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Isopropylbenzene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Methyl-t-Butylether	Not listed.	17.0	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Methylene Chloride	Not listed.	8.9	Not listed.	0.001	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
n-Butylbenzene	Not listed.	140.0	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
n-Propylbenzene	Not listed.	140.0	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Naphthalene	53.0	56.0	0.01	4.0	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
p-Isopropyltoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
sec-Butylbenzene	Not listed.	110.0	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Styrene	Not listed.	1700.0	Not listed.	0.2	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Tert-Butylbenzene	Not listed.	130.0	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Tetrachloroethene	49.0	5.7	0.005	0.003	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Toluene	180.0	520.0	0.2	0.6	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
trans-1,2-Dichloroethene	60.0	63.0	0.02	0.03	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
trans-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Trichloroethene	16.0	2.8	0.04	0.003	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Trichlorofluoromethane	Not listed.	390.0	Not listed.	Not listed.	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Vinyl acetate	Not listed.	430.0	Not listed.	8.0	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
Vinyl chloride	0.21	0.15	0.0004	0.0007 (child)	<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056
o-Xylene	63.0 (Total)	210.0 (Total)	5.0 (Total)	10.0 (total)	--	--	--	--	--	--	--
p/m-Xylene					--	--	--	--	--	--	--
Xylene (total)					<0.0053	<0.0053	<0.0056	<0.0055	<0.0056	<0.0053	<0.0056

Notes:
[1]: New Mexico Environment Department Hazardous Waste Bureau & Ground Water Quality Bureau Voluntary Remediation Program Soil Screening Levels, 18 December 2001
[2]: Environmental Protection Agency, Region IX Residential Preliminary Remediation Goals, 1 November 2000 edition
[3]: mg/kg – milligrams per kilogram
[4]: Sample identification as appears on analytical results.
[5]: Internal primary laboratory duplicate of soil sample HWSF-SB01-(24.5-25.0).

Table 7-2.
Hazardous Waste Storage Facility Evaporation Tank Closure Investigation Soil Sampling Results
continued

Analyte List for EPA Method 8260 (Volatile Organic Compounds)	Soil Screening Levels for Residential Human Exposure Scenario		Dilution Attenuation Factors (DAF) for Soil Contaminant Migration to Groundwater		Sample Identification Number [4]						
	NMED HWB/GWQB SSLs [1] (mg/kg) [2]	EPA, Region IX PRGs [3] (mg/kg)	NMED DAF 1 (mg/kg)	EPA, Region IX DAF 1 (mg/kg)	HWSF-SB02-(24.5-25.0) (mg/kg)	HWSF-SB03-(1.5-2.0) (mg/kg)	HWSF-SB03-(3.5-4.0) (mg/kg)	HWSF-SB03-(5.5-6.0) (mg/kg)	HWSF-SB03-(11.5-12.0) (mg/kg)	HWSF-SB03-(19.5-20.0) (mg/kg)	HWSF-SB03-(24.0-25.0) (mg/kg)
Sample Date					**12-19-01**	**12-19-01**	**12-19-01**	**12-19-01**	**12-19-01**	**12-19-01**	**12-19-01**
Sample Time					**1458**	**1227**	**1237**	**1243**	**1253**	**1318**	**1331**
1,1,1,2-Tetrachloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
1,1,1-Trichlorethane	510.0	630.0	0.003	0.1	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
1,1,2,2-Tetrachloroethane	3.6	0.38	0.002	0.0002	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
1,1,2-Trichloroethane	7.9	0.84	0.003	0.0009	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
1,1-Dichloroethane	560.0	590.0	0.007	1.0	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
1,1-Dichloroethene	8.1	0.054	0.003	0.003	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
1,1-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
1,2,3-Trichlorobenzene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
1,2,3-Trichloropropane	Not listed.	0.0014	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
1,2,4-Trichlorobenzene	520.0	650.0	0.5	0.3	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
1,2,4-Trimethylbenzene	Not listed.	52.0	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
1,2-Dibromo-3-chloropropane	Not listed.	0.45	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
1,2-Dibromoethane	0.053	0.0063	0.00002	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
1,2-Dichlorobenzene	85.0	370.0	0.4	0.9	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
1,2-Dichloroethane	3.3	0.35	0.001	0.001	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
1,2-Dichloropropane	Not listed.	0.35	Not listed.	0.001	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
1,3,5-Trimethylbenzene	Not listed.	21.0	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
1,3-Dichlorobenzene	12.0	13.0	0.004	Not listed.	<0.05	--	--	--	--	--	<0.0053
1,3-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
1,4-Dichloro-2-butene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	--
1,4-Dichlorobenzene	32.0	3.4	0.08	0.1	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
1-Chlorohexane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
2,2-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
2-Butanone	37000.0	Not listed.	0.3	Not listed.	<0.01	<0.011	<0.011	<0.011	<0.011	<0.012	<0.011
2-Chloroethyl vinyl ether	Not listed.	No value.	Not listed.	Not listed.	<0.01	<0.011	<0.011	<0.011	<0.011	<0.012	<0.011
2-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
2-Hexanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.01	<0.011	<0.011	<0.011	<0.011	<0.012	<0.011
4-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
4-Methyl-2-pentanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.01	<0.011	<0.011	<0.011	<0.011	<0.012	<0.011
1-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	<0.025	--	--	--	--	--	--
2-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	<0.025	--	--	--	--	--	--
Acetone	Not listed.	1,600.0	Not listed.	0.8	<0.01	<0.011	<0.011	<0.011	<0.011	<0.012	<0.011
Acrolein	0.09	0.1	0.000008	Not listed.	--	--	--	--	--	--	--
Acrylonitrile	1.9	0.21	0.00007	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Benzene	6.4	0.65	0.003	0.002	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Bromobenzene	Not listed.	28.0	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Bromochloromethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Bromodichloromethane	9.6	1.0	0.03	0.03	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Bromoform	Not listed.	62.0	Not listed.	0.04	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Bromomethane	3.7	3.9	0.002	0.01	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Carbon disulfide	Not listed.	360.0	Not listed.	2.0	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Carbon tetrachloride	1.6	0.24	0.005	0.003	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Chlorobenzene	140.0	150.0	0.05	0.07	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Chloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Chloroform	0.38	0.24	0.03	0.03	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Chloromethane	12.0	1.2	0.0005	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
cis-1,2-Dichloroethene	41.0	43.0	0.02	0.02	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
cis-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Dibromochloromethane	Not listed.	1.1	Not listed.	0.02	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Dibromomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Dichlorodifluoromethane	90.0	94.0	6.0	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Ethyl benzene	68.0	230.0	0.4	0.7	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Ethyl methacrylate	Not listed.	140.0	Not listed.	Not listed.	<0.025	--	--	--	--	--	--
Freon 113	Not listed.	5600.0	Not listed.	Not listed.	<0.035	--	--	--	--	--	--
Freon 12	Not listed.	Not listed.	Not listed.	Not listed.	<0.05	--	--	--	--	--	--
Hexachlorobutadiene	12.0	6.2	0.07	0.1	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Iodomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Isopropylbenzene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Methyl-t-Butylether	Not listed.	17.0	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Methylene Chloride	Not listed.	8.9	Not listed.	0.001	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
n-Butylbenzene	Not listed.	140.0	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
n-Propylbenzene	Not listed.	140.0	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Naphthalene	53.0	56.0	0.01	4.0	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
p-Isopropyltoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
sec-Butylbenzene	Not listed.	110.0	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Styrene	Not listed.	1700.0	Not listed.	0.2	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Tert-Butylbenzene	Not listed.	130.0	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Tetrachloroethene	49.0	5.7	0.005	0.003	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Toluene	180.0	520.0	0.2	0.6	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
trans-1,2-Dichloroethene	60.0	63.0	0.02	0.03	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
trans-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Trichloroethene	16.0	2.8	0.04	0.003	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Trichlorofluoromethane	Not listed.	390.0	Not listed.	Not listed.	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Vinyl acetate	Not listed.	430.0	Not listed.	8.0	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
Vinyl chloride	0.21	0.15	0.0004	0.0007 (child)	<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053
o-Xylene	63.0 (Total)	210.0 (Total)	5.0 (Total)	10.0 (total)	<0.005	--	--	--	--	--	--
p/m-Xylene					<0.01	--	--	--	--	--	--
Xylene (total)					<0.0052	<0.0056	<0.0055	<0.0053	<0.0053	<0.0059	<0.0053

Notes: [1]: New Mexico Environment Department Hazardous Waste Bureau & Ground Water Quality Bureau Voluntary Remediation Program Soil Screening Levels, 18 December 2001
[2]: Environmental Protection Agency, Region IX Residential Preliminary Remediation Goals, 1 November 2000 edition
[3]: mg/kg – milligrams per kilogram
[4]: Sample identification as appears on analytical results.

Table 7-2.
Hazardous Waste Storage Facility Evaporation Tank Closure Investigation Soil Sampling Results
continued

Analyte List for EPA Method 8260 (Volatile Organic Compounds)	Soil Screening Levels for Residential Human Exposure Scenario		Dilution Attenuation Factors (DAF) for Soil Contaminant Migration to Groundwater		Sample Identification Number [4]						
	NMED HWB/GWQB SSLs [1] (mg/kg) [2]	EPA, Region IX PRGs [3] (mg/kg)	NMED DAF 1 (mg/kg)	EPA, Region IX DAF 1 (mg/kg)	HWSF-SB03-(24.0-25.0)-QA (mg/kg)	HWSF-SB04-(1.5-2.0) (mg/kg)	HWSF-SB04-(3.5-4.0) (mg/kg)	HWSF-SB04-(5.5-6.0) (mg/kg)	HWSF-SB04-(11.0-12.0) (mg/kg)	HWSF-SB04-(11.0-12.0)-QA (mg/kg)	HWSF-SB04-(19.5-20.0) (mg/kg)
Sample Date					**12-19-01**	**12-19-01**	**12-19-01**	**12-19-01**	**12-19-01**	**12-19-01**	**12-19-01**
Sample Time					**1331**	**1112**	**1119**	**1124**	**1135**	**1135**	**1150**
1,1,1,2-Tetrachloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
1,1,1-Trichlorethane	510.0	630.0	0.003	0.1	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
1,1,2,2-Tetrachloroethane	3.6	0.38	0.002	0.0002	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
1,1,2-Trichloroethane	7.9	0.84	0.003	0.0009	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
1,1-Dichloroethane	560.0	590.0	0.007	1.0	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
1,1-Dichloroethene	8.1	0.054	0.003	0.003	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
1,1-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.0054	<0.0054	<0.0056	<0.0054	--	<0.0052
1,2,3-Trichlorobenzene	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.0054	<0.0054	<0.0056	<0.0054	--	<0.0052
1,2,3-Trichloropropane	Not listed.	0.0014	Not listed.	Not listed.	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
1,2,4-Trichlorobenzene	520.0	650.0	0.5	0.3	--	<0.0054	<0.0054	<0.0056	<0.0054	--	<0.0052
1,2,4-Trimethylbenzene	Not listed.	52.0	Not listed.	Not listed.	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
1,2-Dibromo-3-chloropropane	Not listed.	0.45	Not listed.	Not listed.	--	<0.0054	<0.0054	<0.0056	<0.0054	--	<0.0052
1,2-Dibromoethane	0.053	0.0063	0.00002	Not listed.	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
1,2-Dichlorobenzene	85.0	370.0	0.4	0.9	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
1,2-Dichloroethane	3.3	0.35	0.001	0.001	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
1,2-Dichloropropane	Not listed.	0.35	Not listed.	0.001	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
1,3,5-Trimethylbenzene	Not listed.	21.0	Not listed.	Not listed.	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
1,3-Dichlorobenzene	12.0	13.0	0.004	Not listed.	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
1,3-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.0054	<0.0054	<0.0056	<0.0054	--	<0.0052
1,4-Dichloro-2-butene	Not listed.	Not listed.	Not listed.	Not listed.	<0.05	--	--	<0.05	--	<0.05	--
1,4-Dichlorobenzene	32.0	3.4	0.08	0.1	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
1-Chlorohexane	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.0054	<0.0054	<0.0056	<0.0054	--	<0.0052
2,2-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.0054	<0.0054	<0.0056	<0.0054	--	<0.0052
2-Butanone	37000.0	Not listed.	0.3	Not listed.	<0.025	<0.011	<0.011	<0.011	<0.011	<0.025	<0.01
2-Chloroethyl vinyl ether	Not listed.	No value.	Not listed.	Not listed.	<0.025	<0.011	<0.011	<0.011	<0.011	<0.025	<0.01
2-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.0054	<0.0054	<0.0056	<0.0054	--	<0.0052
2-Hexanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.025	<0.011	<0.011	<0.011	<0.011	<0.025	<0.01
4-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.0054	<0.0054	<0.0056	<0.0054	--	<0.0052
4-Methyl-2-pentanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.025	<0.011	<0.011	<0.011	<0.011	<0.025	<0.01
1-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	<0.025	--	--	<0.025	--	<0.025	--
2-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	<0.025	--	--	<0.025	--	<0.025	--
Acetone	Not listed.	1,600.0	Not listed.	0.8	<0.05	<0.011	<0.011	<0.011	<0.011	<0.05	<0.01
Acrolein	0.09	0.1	0.000008	Not listed.	<0.1	--	--	--	--	<0.1	--
Acrylonitrile	1.9	0.21	0.00007	Not listed.	<0.1	<0.0054	<0.0054	<0.0056	<0.0054	<0.1	<0.0052
Benzene	6.4	0.65	0.003	0.002	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
Bromobenzene	Not listed.	28.0	Not listed.	Not listed.	--	<0.0054	<0.0054	<0.0056	<0.0054	--	<0.0052
Bromochloromethane	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.0054	<0.0054	<0.0056	<0.0054	--	<0.0052
Bromodichloromethane	9.6	1.0	0.03	0.03	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
Bromoform	Not listed.	62.0	Not listed.	0.04	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
Bromomethane	3.7	3.9	0.002	0.01	<0.025	<0.0054	<0.0054	<0.0056	<0.0054	<0.025	<0.0052
Carbon disulfide	Not listed.	360.0	Not listed.	2.0	<0.025	<0.0054	<0.0054	<0.0056	<0.0054	<0.025	<0.0052
Carbon tetrachloride	1.6	0.24	0.005	0.003	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
Chlorobenzene	140.0	150.0	0.05	0.07	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
Chloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.025	<0.0054	<0.0054	<0.0056	<0.0054	<0.025	<0.0052
Chloroform	0.38	0.24	0.03	0.03	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
Chloromethane	12.0	1.2	0.0005	Not listed.	<0.025	<0.0054	<0.0054	<0.0056	<0.0054	<0.025	<0.0052
cis-1,2-Dichloroethene	41.0	43.0	0.02	0.02	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
cis-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
Dibromochloromethane	Not listed.	1.1	Not listed.	0.02	--	<0.0054	<0.0054	<0.0056	<0.0054	--	<0.0052
Dibromomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
Dichlorodifluoromethane	90.0	94.0	6.0	Not listed.	--	<0.0054	<0.0054	<0.0056	<0.0054	--	<0.0052
Ethyl benzene	68.0	230.0	0.4	0.7	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
Ethyl methacrylate	Not listed.	140.0	Not listed.	Not listed.	<0.025	--	--	<0.025	--	<0.025	--
Freon 113	Not listed.	5600.0	Not listed.	Not listed.	<0.035	--	--	<0.035	--	<0.035	--
Freon 12	Not listed.	Not listed.	Not listed.	Not listed.	<0.05	--	--	<0.05	--	<0.05	--
Hexachlorobutadiene	12.0	6.2	0.07	0.1	--	<0.0054	<0.0054	<0.0056	<0.0054	--	<0.0052
Iodomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.025	<0.0054	<0.0054	<0.0056	<0.0054	<0.025	<0.0052
Isopropylbenzene	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.0054	<0.0054	<0.0056	<0.0054	--	<0.0052
Methyl-t-Butylether	Not listed.	17.0	Not listed.	Not listed.	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
Methylene Chloride	Not listed.	8.9	Not listed.	0.001	<0.05	<0.0054	<0.0054	<0.0056	<0.0054	<0.05	<0.0052
n-Butylbenzene	Not listed.	140.0	Not listed.	Not listed.	--	<0.0054	<0.0054	<0.0056	<0.0054	--	<0.0052
n-Propylbenzene	Not listed.	140.0	Not listed.	Not listed.	--	<0.0054	<0.0054	<0.0056	<0.0054	--	<0.0052
Naphthalene	53.0	56.0	0.01	4.0	<0.025	<0.0054	<0.0054	<0.0056	<0.0054	<0.025	<0.0052
p-Isopropyltoluene	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.0054	<0.0054	<0.0056	<0.0054	--	<0.0052
sec-Butylbenzene	Not listed.	110.0	Not listed.	Not listed.	--	<0.0054	<0.0054	<0.0056	<0.0054	--	<0.0052
Styrene	Not listed.	1700.0	Not listed.	0.2	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
Tert-Butylbenzene	Not listed.	130.0	Not listed.	Not listed.	--	<0.0054	<0.0054	<0.0056	<0.0054	--	<0.0052
Tetrachloroethene	49.0	5.7	0.005	0.003	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
Toluene	180.0	520.0	0.2	0.6	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
trans-1,2-Dichloroethene	60.0	63.0	0.02	0.03	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
trans-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.005	<0.0054	<0.0054	<0.0056	<0.0054	<0.005	<0.0052
Trichloroethene	16.0	2.8	0.04	0.003	<0.005	<0.0054	**0.0032 J**	<0.0056	<0.0054	<0.005	<0.0052
Trichlorofluoromethane	Not listed.	390.0	Not listed.	Not listed.	<0.025	<0.0054	<0.0054	<0.0056	<0.0054	<0.025	<0.0052
Vinyl acetate	Not listed.	430.0	Not listed.	8.0	<0.025	<0.0054	<0.0054	<0.0056	<0.0054	<0.025	<0.0052
Vinyl chloride	0.21	0.15	0.0004	0.0007 (child)	<0.01	<0.0054	<0.0054	<0.0056	<0.0054	<0.01	<0.0052
o-Xylene	63.0 (Total)	210.0 (Total)	5.0 (Total)	10.0 (total)	<0.005	--	--	<0.005	--	<0.005	--
p m-Xylene					<0.01	--	--	<0.01	--	<0.01	--
Xylene (total)					--	<0.0054	<0.0054	<0.0056	<0.0054	--	<0.0052

Notes:
[1]: New Mexico Environment Department Hazardous Waste Bureau & Ground Water Quality Bureau Voluntary Remediation Program Soil Screening Levels, 18 December 2001
[2]: Environmental Protection Agency, Region IX Residential Preliminary Remediation Goals, 1 November 2000 edition
[3]: mg/kg – milligrams per kilogram
[4]: Sample identification as appears on analytical results.

Table 7-2.
Hazardous Waste Storage Facility Evaporation Tank Closure Investigation Soil Sampling Results
continued

Analyte List for EPA Method 8260 (Volatile Organic Compounds)	Soil Screening Levels for Residential Human Exposure Scenario		Dilution Attenuation Factors (DAF) for Soil Contaminant Migration to Groundwater		Sample Identification Number [4]						
	NMED HWB/GWQB SSLs [1] (mg/kg) [2]	EPA, Region IX PRGs [3] (mg/kg)	NMED DAF 1 (mg/kg)	EPA, Region IX DAF 1 (mg/kg)	HWSF-SB04-(24.5-25.0) (mg/kg)	HWSF-SB05-(1.5-2.0) (mg/kg)	HWSF-SB05-(3.5-4.0) (mg/kg)	HWSF-SB05-(5.5-6.0) (mg/kg)	HWSF-SB05-(11.5-12.0) (mg/kg)	HWSF-SB05-(19.5-20.0) (mg/kg)	HWSF-SB05-(24.5-25.0) (mg/kg)
Sample Date					**12-19-01**	**12-18-01**	**12-18-01**	**12-18-01**	**12-18-01**	**12-18-01**	**12-18-01**
Sample Time					**1206**	**1102**	**1110**	**1114**	**1124**	**1145**	**1202**
1,1,1,2-Tetrachloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
1,1,1-Trichlorethane	510.0	630.0	0.003	0.1	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
1,1,2,2-Tetrachloroethane	3.6	0.38	0.002	0.0002	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
1,1,2-Trichloroethane	7.9	0.84	0.003	0.0009	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
1,1-Dichloroethane	560.0	590.0	0.007	1.0	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
1,1-Dichloroethene	8.1	0.054	0.003	0.003	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
1,1-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
1,2,3-Trichlorobenzene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
1,2,3-Trichloropropane	Not listed.	0.0014	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
1,2,4-Trichlorobenzene	520.0	650.0	0.5	0.3	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
1,2,4-Trimethylbenzene	Not listed.	52.0	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
1,2-Dibromo-3-chloropropane	Not listed.	0.45	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
1,2-Dibromoethane	0.053	0.0063	0.00002	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
1,2-Dichlorobenzene	85.0	370.0	0.4	0.9	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
1,2-Dichloroethane	3.3	0.35	0.001	0.001	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
1,2-Dichloropropane	Not listed.	0.35	Not listed.	0.001	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
1,3,5-Trimethylbenzene	Not listed.	21.0	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
1,3-Dichlorobenzene	12.0	13.0	0.004	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
1,3-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
1,4-Dichloro-2-butene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	--	--	--	<0.05
1,4-Dichlorobenzene	32.0	3.4	0.08	0.1	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
1-Chlorohexane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
2,2-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
2-Butanone	37000.0	Not listed.	0.3	Not listed.	<0.01	<0.011	<0.011	<0.01	<0.01	<0.011	<0.0096
2-Chloroethyl vinyl ether	Not listed.	No value.	Not listed.	Not listed.	<0.01	<0.011	<0.011	<0.01	<0.01	<0.011	<0.0096
2-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
2-Hexanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.01	<0.011	<0.011	<0.01	<0.01	<0.011	<0.0096
4-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
4-Methyl-2-pentanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.01	<0.011	<0.011	<0.01	<0.01	<0.011	<0.0096
1-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	--	--	--	<0.025
2-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	--	--	--	<0.025
Acetone	Not listed.	1,600.0	Not listed.	0.8	<0.01	<0.011	<0.011	<0.01	**0.018**	<0.011	<0.0096
Acrolein	0.09	0.1	0.000008	Not listed.	--	--	--	--	--	--	--
Acrylonitrile	1.9	0.21	0.00007	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Benzene	6.4	0.65	0.003	0.002	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Bromobenzene	Not listed.	28.0	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Bromochloromethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Bromodichloromethane	9.6	1.0	0.03	0.03	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Bromoform	Not listed.	62.0	Not listed.	0.04	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Bromomethane	3.7	3.9	0.002	0.01	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Carbon disulfide	Not listed.	360.0	Not listed.	2.0	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Carbon tetrachloride	1.6	0.24	0.005	0.003	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Chlorobenzene	140.0	150.0	0.05	0.07	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Chloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Chloroform	0.38	0.24	0.03	0.03	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Chloromethane	12.0	1.2	0.0005	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
cis-1,2-Dichloroethene	41.0	43.0	0.02	0.02	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
cis-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Dibromochloromethane	Not listed.	1.1	Not listed.	0.02	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Dibromomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Dichlorodifluoromethane	90.0	94.0	6.0	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Ethyl benzene	68.0	230.0	0.4	0.7	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Ethyl methacrylate	Not listed.	140.0	Not listed.	Not listed.	--	--	--	--	--	--	<0.025
Freon 113	Not listed.	5600.0	Not listed.	Not listed.	--	--	--	--	--	--	<0.035
Freon 12	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	--	--	--	<0.05
Hexachlorobutadiene	12.0	6.2	0.07	0.1	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Iodomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Isopropylbenzene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Methyl-t-Butylether	Not listed.	17.0	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Methylene Chloride	Not listed.	8.9	Not listed.	0.001	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
n-Butylbenzene	Not listed.	140.0	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
n-Propylbenzene	Not listed.	140.0	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Naphthalene	53.0	56.0	0.01	4.0	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
p-Isopropyltoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
sec-Butylbenzene	Not listed.	110.0	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Styrene	Not listed.	1700.0	Not listed.	0.2	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Tert-Butylbenzene	Not listed.	130.0	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Tetrachloroethene	49.0	5.7	0.005	0.003	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Toluene	180.0	520.0	0.2	0.6	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
trans-1,2-Dichloroethene	60.0	63.0	0.02	0.03	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
trans-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Trichloroethene	16.0	2.8	0.04	0.003	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Trichlorofluoromethane	Not listed.	390.0	Not listed.	Not listed.	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Vinyl acetate	Not listed.	430.0	Not listed.	8.0	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
Vinyl chloride	0.21	0.15	0.0004	0.0007 (child)	<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048
o-Xylene	63.0 (Total)	210.0 (Total)	5.0 (Total)	10.0 (total)	--	--	--	--	--	--	<0.005
p/m-Xylene					--	--	--	--	--	--	<0.01
Xylene (total)					<0.0051	<0.0057	<0.0056	<0.0052	<0.0052	<0.0054	<0.0048

Notes:
[1]: New Mexico Environment Department Hazardous Waste Bureau & Ground Water Quality Bureau Voluntary Remediation Program Soil Screening Levels, 18 December 2001
[2]: Environmental Protection Agency, Region IX Residential Preliminary Remediation Goals, 1 November 2000 edition
[3]: mg/kg – milligrams per kilogram
[4]: Sample identification as appears on analytical results.

Table 7-2.
Hazardous Waste Storage Facility Evaporation Tank Closure Investigation Soil Sampling Results
continued

Analyte List for EPA Method 8260 (Volatile Organic Compounds)	Soil Screening Levels for Residential Human Exposure Scenario		Dilution Attenuation Factors (DAF) for Soil Contaminant Migration to Groundwater		Sample Identification Number [4]						
	NMED HWB/GWQB SSLs [1] (mg/kg) [2]	EPA, Region IX PRGs [3] (mg/kg)	NMED DAF 1 (mg/kg)	EPA, Region IX DAF 1 (mg/kg)	HWSF-SB06-(1.5-2.0) (mg/kg)	HWSF-SB06-(3.0-4.0) (mg/kg)	HWSF-SB06-(3.0-4.0) QA (mg/kg)	HWSF-SB06-(5.5-6.0) (mg/kg)	HWSF-SB06-(11.5-12.0) (mg/kg)	HWSF-SB06-(19.5-20.0) (mg/kg)	HWSF-SB06-(24.5-25.0) (mg/kg)
Sample Date					**12-18-01**	**12-18-01**	**12-18-01**	**12-18-01**	**12-18-01**	**12-18-01**	**12-18-01**
Sample Time					**1225**	**1231**	**1231**	**1236**	**1250**	**1311**	**1321**
1,1,1,2-Tetrachloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
1,1,1-Trichlorethane	510.0	630.0	0.003	0.1	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
1,1,2,2-Tetrachloroethane	3.6	0.38	0.002	0.0002	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
1,1,2-Trichloroethane	7.9	0.84	0.003	0.0009	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
1,1-Dichloroethane	560.0	590.0	0.007	1.0	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
1,1-Dichloroethene	8.1	0.054	0.003	0.003	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
1,1-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0067	<0.0059	--	<0.0054	<0.0062	<0.0056	<0.0054
1,2,3-Trichlorobenzene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0067	<0.0059	--	<0.0054	<0.0062	<0.0056	<0.0054
1,2,3-Trichloropropane	Not listed.	0.0014	Not listed.	Not listed.	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
1,2,4-Trichlorobenzene	520.0	650.0	0.5	0.3	<0.0067	<0.0059	--	<0.0054	<0.0062	<0.0056	<0.0054
1,2,4-Trimethylbenzene	Not listed.	52.0	Not listed.	Not listed.	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
1,2-Dibromo-3-chloropropane	Not listed.	0.45	Not listed.	Not listed.	<0.0067	<0.0059	--	<0.0054	<0.0062	<0.0056	<0.0054
1,2-Dibromoethane	0.053	0.0063	0.00002	Not listed.	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
1,2-Dichlorobenzene	85.0	370.0	0.4	0.9	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
1,2-Dichloroethane	3.3	0.35	0.001	0.001	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
1,2-Dichloropropane	Not listed.	0.35	Not listed.	0.001	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
1,3,5-Trimethylbenzene	Not listed.	21.0	Not listed.	Not listed.	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
1,3-Dichlorobenzene	12.0	13.0	0.004	Not listed.	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
1,3-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0067	<0.0059	--	<0.0054	<0.0062	<0.0056	<0.0054
1,4-Dichloro-2-butene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	<0.05	--	--	--	--
1,4-Dichlorobenzene	32.0	3.4	0.08	0.1	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
1-Chlorohexane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0067	<0.0059	--	<0.0054	<0.0062	<0.0056	<0.0054
2,2-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0067	<0.0059	--	<0.0054	<0.0062	<0.0056	<0.0054
2-Butanone	37000.0	Not listed.	0.3	Not listed.	<0.013	<0.012	<0.025	<0.011	<0.012	<0.011	<0.011
2-Chloroethyl vinyl ether	Not listed.	No value.	Not listed.	Not listed.	<0.013	<0.012	<0.025	<0.011	<0.012	<0.011	<0.011
2-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0067	<0.0059	--	<0.0054	<0.0062	<0.0056	<0.0054
2-Hexanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.013	<0.012	<0.025	<0.011	<0.012	<0.011	<0.011
4-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0067	<0.0059	--	<0.0054	<0.0062	<0.0056	<0.0054
4-Methyl-2-pentanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.013	<0.012	<0.025	<0.011	<0.012	<0.011	<0.011
1-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	<0.025	--	--	--	--
2-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	<0.025	--	--	--	--
Acetone	Not listed.	1,600.0	Not listed.	0.8	<0.013	<0.012	<0.05	<0.011	<0.012	<0.011	<0.011
Acrolein	0.09	0.1	0.000008	Not listed.	--	--	<0.1	--	--		
Acrylonitrile	1.9	0.21	0.00007	Not listed.	<0.0067	<0.0059	<0.1	<0.0054	<0.0062	<0.0056	<0.0054
Benzene	6.4	0.65	0.003	0.002	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
Bromobenzene	Not listed.	28.0	Not listed.	Not listed.	<0.0067	<0.0059	--	<0.0054	<0.0062	<0.0056	<0.0054
Bromochloromethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0067	<0.0059	--	<0.0054	<0.0062	<0.0056	<0.0054
Bromodichloromethane	9.6	1.0	0.03	0.03	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
Bromoform	Not listed.	62.0	Not listed.	0.04	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
Bromomethane	3.7	3.9	0.002	0.01	<0.0067	<0.0059	<0.025	<0.0054	<0.0062	<0.0056	<0.0054
Carbon disulfide	Not listed.	360.0	Not listed.	2.0	<0.0067	<0.0059	<0.025	<0.0054	<0.0062	<0.0056	<0.0054
Carbon tetrachloride	1.6	0.24	0.005	0.003	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
Chlorobenzene	140.0	150.0	0.05	0.07	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
Chloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.0067	<0.0059	<0.025	<0.0054	<0.0062	<0.0056	<0.0054
Chloroform	0.38	0.24	0.03	0.03	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
Chloromethane	12.0	1.2	0.0005	Not listed.	<0.0067	<0.0059	<0.025	<0.0054	<0.0062	<0.0056	<0.0054
cis-1,2-Dichloroethene	41.0	43.0	0.02	0.02	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
cis-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
Dibromochloromethane	Not listed.	1.1	Not listed.	0.02	<0.0067	<0.0059	--	<0.0054	<0.0062	<0.0056	<0.0054
Dibromomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
Dichlorodifluoromethane	90.0	94.0	6.0	Not listed.	<0.0067	<0.0059	--	<0.0054	<0.0062	<0.0056	<0.0054
Ethyl benzene	68.0	230.0	0.4	0.7	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
Ethyl methacrylate	Not listed.	140.0	Not listed.	Not listed.	--	--	<0.025	--	--	--	--
Freon 113	Not listed.	5600.0	Not listed.	Not listed.	--	--	<0.035	--	--	--	--
Freon 12	Not listed.	Not listed.	Not listed.	Not listed.	--	--	<0.05	--	--	--	--
Hexachlorobutadiene	12.0	6.2	0.07	0.1	<0.0067	<0.0059	--	<0.0054	<0.0062	<0.0056	<0.0054
Iodomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0067	<0.0059	<0.025	<0.0054	<0.0062	<0.0056	<0.0054
Isopropylbenzene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0067	<0.0059	--	<0.0054	<0.0062	<0.0056	<0.0054
Methyl-t-Butylether	Not listed.	17.0	Not listed.	Not listed.	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
Methylene Chloride	Not listed.	8.9	Not listed.	0.001	<0.0067	<0.0059	<0.05	<0.0054	<0.0062	<0.0056	<0.0054
n-Butylbenzene	Not listed.	140.0	Not listed.	Not listed.	<0.0067	<0.0059	--	<0.0054	<0.0062	<0.0056	<0.0054
n-Propylbenzene	Not listed.	140.0	Not listed.	Not listed.	<0.0067	<0.0059	--	<0.0054	<0.0062	<0.0056	<0.0054
Naphthalene	53.0	56.0	0.01	4.0	<0.0067	<0.0059	<0.025	<0.0054	<0.0062	<0.0056	<0.0054
p-Isopropyltoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0067	<0.0059	--	<0.0054	<0.0062	<0.0056	<0.0054
sec-Butylbenzene	Not listed.	110.0	Not listed.	Not listed.	<0.0067	<0.0059	--	<0.0054	<0.0062	<0.0056	<0.0054
Styrene	Not listed.	1700.0	Not listed.	0.2	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
Tert-Butylbenzene	Not listed.	130.0	Not listed.	Not listed.	<0.0067	<0.0059	--	<0.0054	<0.0062	<0.0056	<0.0054
Tetrachloroethene	49.0	5.7	0.005	0.003	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
Toluene	180.0	520.0	0.2	0.6	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	**0.0023 J**	<0.0054
trans-1,2-Dichloroethene	60.0	63.0	0.02	0.03	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
trans-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
Trichloroethene	16.0	2.8	0.04	0.003	<0.0067	<0.0059	<0.005	<0.0054	<0.0062	<0.0056	<0.0054
Trichlorofluoromethane	Not listed.	390.0	Not listed.	Not listed.	<0.0067	<0.0059	<0.025	<0.0054	<0.0062	<0.0056	<0.0054
Vinyl acetate	Not listed.	430.0	Not listed.	8.0	<0.0067	<0.0059	<0.025	<0.0054	<0.0062	<0.0056	<0.0054
Vinyl chloride	0.21	0.15	0.0004	0.0007 (child)	<0.0067	<0.0059	<0.01	<0.0054	<0.0062	<0.0056	<0.0054
o-Xylene	63.0 (Total)	210.0 (Total)	5.0 (Total)	10.0 (total)	--	--	<0.005	--	--	--	--
p,m-Xylene					--	--	<0.01	--	--	--	--
Xylene (total)					<0.0067	<0.0059	--	<0.0054	<0.0062	<0.0056	<0.0054

Notes:
[1]: New Mexico Environment Department Hazardous Waste Bureau & Ground Water Quality Bureau Voluntary Remediation Program Soil Screening Levels, 18 December 2001
[2]: Environmental Protection Agency, Region IX Residential Preliminary Remediation Goals, 1 November 2000 edition
[3]: mg/kg – milligrams per kilogram
[4]: Sample identification as appears on analytical results.

Table 7-2.
Hazardous Waste Storage Facility Evaporation Tank Closure Investigation Soil Sampling Results
continued

Analyte List for EPA Method 8260 (Volatile Organic Compounds)	Soil Screening Levels for Residential Human Exposure Scenario		Dilution Attenuation Factors (DAF) for Soil Contaminant Migration to Groundwater		Sample Identification Number [4]						
	NMED HWB/GWQB SSLs [1] (mg/kg) [2]	EPA, Region IX PRGs [3] (mg/kg)	NMED DAF 1 (mg/kg)	EPA, Region IX DAF 1 (mg/kg)	HWSF-SB06-EB [5] (mg/L)	HWSF-SB06-Tap Water [6] (mg/L)	HWSF-SB06-Tap Water RA1 [7] (mg/L)	HWSF-SB07-(1.5-2.0) (mg/kg)	HWSF-SB07-(3.5-4.0) (mg/kg)	HWSF-SB07-(5.5-6.0) (mg/kg)	HWSF-SB07-(11.5-12.0) (mg/kg)
Sample Date					**12-18-01**	**12-18-01**	--	**12-18-01**	**12-18-01**	**12-18-01**	**12-18-01**
Sample Time					**1330**	**1330**	--	**1351**	**1358**	**1403**	**1414**
1,1,1,2-Tetrachloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
1,1,1-Trichlorethane	510.0	630.0	0.003	0.1	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
1,1,2,2-Tetrachloroethane	3.6	0.38	0.002	0.0002	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
1,1,2-Trichloroethane	7.9	0.84	0.003	0.0009	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
1,1-Dichloroethane	560.0	590.0	0.007	1.0	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
1,1-Dichloroethene	8.1	0.054	0.003	0.003	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
1,1-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
1,2,3-Trichlorobenzene	Not listed.	Not listed.	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
1,2,3-Trichloropropane	Not listed.	0.0014	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
1,2,4-Trichlorobenzene	520.0	650.0	0.5	0.3	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
1,2,4-Trimethylbenzene	Not listed.	52.0	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
1,2-Dibromo-3-chloropropane	Not listed.	0.45	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
1,2-Dibromoethane	0.053	0.0063	0.00002	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
1,2-Dichlorobenzene	85.0	370.0	0.4	0.9	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
1,2-Dichloroethane	3.3	0.35	0.001	0.001	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
1,2-Dichloropropane	Not listed.	0.35	Not listed.	0.001	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
1,3,5-Trimethylbenzene	Not listed.	21.0	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
1,3-Dichlorobenzene	12.0	13.0	0.004	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
1,3-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
1,4-Dichloro-2-butene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	<0.05	--	--	--	--
1,4-Dichlorobenzene	32.0	3.4	0.08	0.1	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
1-Chlorohexane	Not listed.	Not listed.	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
2,2-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
2-Butanone	37000.0	Not listed.	0.3	Not listed.	<0.005	<0.005	<0.005	<0.011	<0.012	<0.01	<0.011
2-Chloroethyl vinyl ether	Not listed.	No value.	Not listed.	Not listed.	<0.002	<0.002	<0.002	<0.011	<0.012	<0.01	<0.011
2-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
2-Hexanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.005	<0.005	<0.005	<0.011	<0.012	<0.01	<0.011
4-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
4-Methyl-2-pentanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.005	<0.005	<0.005	<0.011	<0.012	<0.01	<0.011
1-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	<0.025	--	--	--	--
2-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	<0.025	--	--	--	--
Acetone	Not listed.	1,600.0	Not listed.	0.8	<0.005	<0.005	<0.005	<0.011	<0.012	<0.01	<0.011
Acrolein	0.09	0.1	0.000008	Not listed.	<0.005	<0.005	<0.005				
Acrylonitrile	1.9	0.21	0.00007	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Benzene	6.4	0.65	0.003	0.002	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Bromobenzene	Not listed.	28.0	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Bromochloromethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Bromodichloromethane	9.6	1.0	0.03	0.03	**0.0016**	**0.00081 J**	**0.00058 J**	<0.0057	<0.0058	<0.0052	<0.0057
Bromoform	Not listed.	62.0	Not listed.	0.04	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Bromomethane	3.7	3.9	0.002	0.01	<0.002	<0.002	<0.002	<0.0057	<0.0058	<0.0052	<0.0057
Carbon disulfide	Not listed.	360.0	Not listed.	2.0	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Carbon tetrachloride	1.6	0.24	0.005	0.003	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Chlorobenzene	140.0	150.0	0.05	0.07	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Chloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.002	<0.002	<0.002	<0.0057	<0.0058	<0.0052	<0.0057
Chloroform	0.38	0.24	0.03	0.03	**0.0027**	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Chloromethane	12.0	1.2	0.0005	Not listed.	<0.002	<0.002	<0.002	<0.0057	<0.0058	<0.0052	<0.0057
cis-1,2-Dichloroethene	41.0	43.0	0.02	0.02	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
cis-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Dibromochloromethane	Not listed.	1.1	Not listed.	0.02	**0.0013**	**0.0016**	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Dibromomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Dichlorodifluoromethane	90.0	94.0	6.0	Not listed.	<0.002	<0.002	<0.002	<0.0057	<0.0058	<0.0052	<0.0057
Ethyl benzene	68.0	230.0	0.4	0.7	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Ethyl methacrylate	Not listed.	140.0	Not listed.	Not listed.	--	--	<0.025	--	--	--	--
Freon 113	Not listed.	5600.0	Not listed.	Not listed.	--	--	<0.035	--	--	--	--
Freon 12	Not listed.	Not listed.	Not listed.	Not listed.	--	--	<0.05	--	--	--	--
Hexachlorobutadiene	12.0	6.2	0.07	0.1	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Iodomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Isopropylbenzene	Not listed.	Not listed.	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Methyl-t-Butylether	Not listed.	17.0	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Methylene Chloride	Not listed.	8.9	Not listed.	0.001	<0.002	<0.002	<0.002	<0.0057	<0.0058	<0.0052	<0.0057
n-Butylbenzene	Not listed.	140.0	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
n Propylbenzene	Not listed.	140.0	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Naphthalene	53.0	56.0	0.01	4.0	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
p-Isopropyltoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
sec-Butylbenzene	Not listed.	110.0	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Styrene	Not listed.	1700.0	Not listed.	0.2	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Tert-Butylbenzene	Not listed.	130.0	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Tetrachloroethene	49.0	5.7	0.005	0.003	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Toluene	180.0	520.0	0.2	0.6	**0.0013**	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
trans-1,2-Dichloroethene	60.0	63.0	0.02	0.03	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
trans-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Trichloroethene	16.0	2.8	0.04	0.003	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Trichlorofluoromethane	Not listed.	390.0	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Vinyl acetate	Not listed.	430.0	Not listed.	8.0	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
Vinyl chloride	0.21	0.15	0.0004	0.0007 (child)	<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057
o-Xylene	63.0 (Total)	210.0 (Total)	5.0 (Total)	10.0 (total)	--	--	<0.005	--	--	--	--
p/m-Xylene					--	--	<0.01	--	--	--	--
Xylene (total)					<0.001	<0.001	<0.001	<0.0057	<0.0058	<0.0052	<0.0057

Notes: [1]: New Mexico Environment Department Hazardous Waste Bureau & Ground Water Quality Bureau Voluntary Remediation Program Soil Screening Levels, 18 December 2001
[2]: Environmental Protection Agency, Region IX Residential Preliminary Remediation Goals, 1 November 2000 edition
[3]: mg/kg – milligrams per kilogram
[4]: Sample identification as appears on analytical results.
[5]: Equipment blank collected following completion of sampling at SB06.
[6]: Tap water sample associated with HWSF-SB06-EB. Tap water was used as the initial equipment rinse during decontamination.
[7]: Internal primary laboratory duplicate of HWSF-SB06-TapWater.

Table 7-2.
Hazardous Waste Storage Facility Evaporation Tank Closure Investigation Soil Sampling Results
continued

Analyte List for EPA Method 8260 (Volatile Organic Compounds)	Soil Screening Levels for Residential Human Exposure Scenario		Dilution Attenuation Factors (DAF) for Soil Contaminant Migration to Groundwater		Sample Identification Number [4]						
	NMED HWB/GWQB SSLs [1] (mg/kg) [2]	EPA, Region IX PRGs [3] (mg/kg)	NMED DAF 1 (mg/kg)	EPA, Region IX DAF 1 (mg/kg)	HWSF-SB07-(19.5-20.0) (mg/kg)	HWSF-SB07-(19.5-20.0) RA1 [5] (mg/kg)	HWSF-SB07-(24.0-25.0) (mg/kg)	HWSF-SB07-(24.0-25.0)-QA (mg/kg)	HWSF-SB08-(1.5-2.0) (mg/kg)	HWSF-SB08-(3.5-4.0) (mg/kg)	HWSF-SB08-(5.5-6.0) (mg/kg)
Sample Date					**12-18-01**	**--**	**12-18-01**	**12-18-01**	**12-18-01**	**12-18-01**	**12-18-01**
Sample Time					**1442**	**--**	**1457**	**1457**	**1601**	**1610**	**1614**
1,1,1,2-Tetrachloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
1,1,1-Trichlorethane	510.0	630.0	0.003	0.1	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
1,1,2,2-Tetrachloroethane	3.6	0.38	0.002	0.0002	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
1,1,2-Trichloroethane	7.9	0.84	0.003	0.0009	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
1,1-Dichloroethane	560.0	590.0	0.007	1.0	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
1,1-Dichloroethene	8.1	0.054	0.003	0.003	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
1,1-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	--	<0.0054	<0.0064	<0.0052
1,2,3-Trichlorobenzene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	--	<0.0054	<0.0064	<0.0052
1,2,3-Trichloropropane	Not listed.	0.0014	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
1,2,4-Trichlorobenzene	520.0	650.0	0.5	0.3	<0.0053	<0.0053	<0.005	--	<0.0054	<0.0064	<0.0052
1,2,4-Trimethylbenzene	Not listed.	52.0	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
1,2-Dibromo-3-chloropropane	Not listed.	0.45	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	--	<0.0054	<0.0064	<0.0052
1,2-Dibromoethane	0.053	0.0063	0.00002	Not listed.	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
1,2-Dichlorobenzene	85.0	370.0	0.4	0.9	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
1,2-Dichloroethane	3.3	0.35	0.001	0.001	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
1,2-Dichloropropane	Not listed.	0.35	Not listed.	0.001	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
1,3,5-Trimethylbenzene	Not listed.	21.0	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
1,3-Dichlorobenzene	12.0	13.0	0.004	Not listed.	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
1,3-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	--	<0.0054	<0.0064	<0.0052
1,4-Dichloro-2-butene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	<0.05	--	<0.05	--
1,4-Dichlorobenzene	32.0	3.4	0.08	0.1	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
1-Chlorohexane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	--	<0.0054	<0.0064	<0.0052
2,2-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	--	<0.0054	<0.0064	<0.0052
2-Butanone	37000.0	Not listed.	0.3	Not listed.	<0.011	<0.011	<0.01	<0.025	<0.011	<0.013	<0.01
2-Chloroethyl vinyl ether	Not listed.	No value.	Not listed.	Not listed.	<0.011	<0.011	<0.01	<0.025	<0.011	<0.013	<0.01
2-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	--	<0.0054	<0.0064	<0.0052
2-Hexanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.011	<0.011	<0.01	<0.025	<0.011	<0.013	<0.01
4-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	--	<0.0054	<0.0064	<0.0052
4-Methyl-2-pentanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.011	<0.011	<0.01	<0.025	<0.011	<0.013	<0.01
1-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	<0.025	--	<0.025	--
2-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	<0.025	--	<0.025	--
Acetone	Not listed.	1,600.0	Not listed.	0.8	<0.011	<0.011	<0.01	<0.05	**0.024**	<0.013	<0.01
Acrolein	0.09	0.1	0.000008	Not listed.		--	--	<0.1	--	--	--
Acrylonitrile	1.9	0.21	0.00007	Not listed.	<0.0053	<0.0053	<0.005	<0.1	<0.0054	<0.0064	<0.0052
Benzene	6.4	0.65	0.003	0.002	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
Bromobenzene	Not listed.	28.0	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	--	<0.0054	<0.0064	<0.0052
Bromochloromethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	--	<0.0054	<0.0064	<0.0052
Bromodichloromethane	9.6	1.0	0.03	0.03	<0.0053	<0.0053	**0.0086**	<0.005	**0.018**	**0.018**	<0.0052
Bromoform	Not listed.	62.0	Not listed.	0.04	<0.0053	<0.0053	**0.011**	<0.005	**0.0023 J**	**0.0031 J**	<0.0052
Bromomethane	3.7	3.9	0.002	0.01	<0.0053	<0.0053	<0.005	<0.025	<0.0054	<0.0064	<0.0052
Carbon disulfide	Not listed.	360.0	Not listed.	2.0	<0.0053	<0.0053	<0.005	<0.025	<0.0054	<0.0064	<0.0052
Carbon tetrachloride	1.6	0.24	0.005	0.003	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
Chlorobenzene	140.0	150.0	0.05	0.07	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
Chloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	<0.025	<0.0054	<0.0064	<0.0052
Chloroform	0.38	0.24	0.03	0.03	<0.0053	<0.0053	**0.0077**	<0.005	**0.032**	**0.033**	<0.0052
Chloromethane	12.0	1.2	0.0005	Not listed.	<0.0053	<0.0053	<0.005	<0.025	<0.0054	<0.0064	<0.0052
cis-1,2-Dichloroethene	41.0	43.0	0.02	0.02	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
cis-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
Dibromochloromethane	Not listed.	1.1	Not listed.	0.02	<0.0053	<0.0053	**0.0096**	--	**0.0068**	**0.0077**	<0.0052
Dibromomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
Dichlorodifluoromethane	90.0	94.0	6.0	Not listed.	<0.0053	<0.0053	<0.005	--	<0.0054	<0.0064	<0.0052
Ethyl benzene	68.0	230.0	0.4	0.7	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
Ethyl methacrylate	Not listed.	140.0	Not listed.	Not listed.	--	--	--	<0.025	--	<0.025	--
Freon 113	Not listed.	5600.0	Not listed.	Not listed.	--	--	--	<0.035	--	<0.035	--
Freon 12	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	<0.05	--	<0.05	--
Hexachlorobutadiene	12.0	6.2	0.07	0.1	<0.0053	<0.0053	<0.005	--	<0.0054	<0.0064	<0.0052
Iodomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	<0.025	<0.0054	<0.0064	<0.0052
Isopropylbenzene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	--	<0.0054	<0.0064	<0.0052
Methyl-t-Butylether	Not listed.	17.0	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
Methylene Chloride	Not listed.	8.9	Not listed.	0.001	<0.0053	<0.0053	<0.005	<0.05	<0.0054	<0.0064	<0.0052
n-Butylbenzene	Not listed.	140.0	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	--	<0.0054	<0.0064	<0.0052
n-Propylbenzene	Not listed.	140.0	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	--	<0.0054	<0.0064	<0.0052
Naphthalene	53.0	56.0	0.01	4.0	<0.0053	<0.0053	<0.005	<0.025	<0.0054	<0.0064	<0.0052
p-Isopropyltoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	--	<0.0054	<0.0064	<0.0052
sec-Butylbenzene	Not listed.	110.0	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	--	<0.0054	<0.0064	<0.0052
Styrene	Not listed.	1700.0	Not listed.	0.2	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
Tert-Butylbenzene	Not listed.	130.0	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	--	<0.0054	<0.0064	<0.0052
Tetrachloroethene	49.0	5.7	0.005	0.003	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
Toluene	180.0	520.0	0.2	0.6	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
trans-1,2-Dichloroethene	60.0	63.0	0.02	0.03	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
trans-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
Trichloroethene	16.0	2.8	0.04	0.003	<0.0053	<0.0053	<0.005	<0.005	<0.0054	<0.0064	<0.0052
Trichlorofluoromethane	Not listed.	390.0	Not listed.	Not listed.	<0.0053	<0.0053	<0.005	<0.025	<0.0054	<0.0064	<0.0052
Vinyl acetate	Not listed.	430.0	Not listed.	8.0	<0.0053	<0.0053	<0.005	<0.025	<0.0054	<0.0064	<0.0052
Vinyl chloride	0.21	0.15	0.0004	0.0007 (child)	<0.0053	<0.0053	<0.005	<0.01	<0.0054	<0.0064	<0.0052
o-Xylene	63.0 (Total)	210.0 (Total)	5.0 (Total)	10.0 (total)	--	--	--	<0.005	--	<0.005	--
p,m-Xylene					--	--	--	<0.01	--	<0.01	--
Xylene (total)					<0.0053	<0.0053	<0.005	--	<0.0054	<0.0064	<0.0052

Notes:
(1): New Mexico Environment Department Hazardous Waste Bureau & Ground Water Quality Bureau Voluntary Remediation Program Soil Screening Levels, 18 December 2001
(2): Environmental Protection Agency, Region IX Residential Preliminary Remediation Goals, 1 November 2000 edition
(3): mg/kg – milligrams per kilogram
(4): Sample identification as appears on analytical results.
(5): Internal primary laboratory duplicate of soil sample HWSF-SB07-(19.5-20.0).

Table 7-2.
Hazardous Waste Storage Facility Evaporation Tank Closure Investigation Soil Sampling Results
continued

Analyte List for EPA Method 8260 (Volatile Organic Compounds)	Soil Screening Levels for Residential Human Exposure Scenario		Dilution Attenuation Factors (DAF) for Soil Contaminant Migration to Groundwater		Sample Identification Number [4]						
	NMED HWB/GWQB SSLs [1] (mg/kg) [2]	EPA, Region IX PRGs [3] (mg/kg)	NMED DAF 1 (mg/kg)	EPA, Region IX DAF 1 (mg/kg)	HWSF-SB08-(11.5-12.0) (mg/kg)	HWSF-SB08-(19.5-20.0) (mg/kg)	HWSF-SB08-(24.5-25.0) (mg/kg)	HWSF-SB08-(24.5-25.0) RA1 [5] (mg/kg)	HWSF-SB09-(1.5-2.0) (mg/kg)	HWSF-SB09-(3.5-4.0) (mg/kg)	HWSF-SB09-(5.5-6.0) (mg/kg)
Sample Date					**12-18-01**	**12-18-01**	**12-18-01**	**--**	**12-17-01**	**12-17-01**	**12-17-01**
Sample Time					**1623**	**1645**	**1655**	**--**	**1140**	**1150**	**1155**
1,1,1,2-Tetrachloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
1,1,1-Trichlorethane	510.0	630.0	0.003	0.1	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
1,1,2,2-Tetrachloroethane	3.6	0.38	0.002	0.0002	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
1,1,2-Trichloroethane	7.9	0.84	0.003	0.0009	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
1,1-Dichloroethane	560.0	590.0	0.007	1.0	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
1,1-Dichloroethene	8.1	0.054	0.003	0.003	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
1,1-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
1,2,3-Trichlorobenzene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
1,2,3-Trichloropropane	Not listed.	0.0014	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
1,2,4-Trichlorobenzene	520.0	650.0	0.5	0.3	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
1,2,4-Trimethylbenzene	Not listed.	52.0	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
1,2-Dibromo-3-chloropropane	Not listed.	0.45	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
1,2-Dibromoethane	0.053	0.0063	0.00002	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
1,2-Dichlorobenzene	85.0	370.0	0.4	0.9	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
1,2-Dichloroethane	3.3	0.35	0.001	0.001	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
1,2-Dichloropropane	Not listed.	0.35	Not listed.	0.001	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
1,3,5-Trimethylbenzene	Not listed.	21.0	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
1,3-Dichlorobenzene	12.0	13.0	0.004	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
1,3-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
1,4-Dichloro-2-butene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	--	--	--	--
1,4-Dichlorobenzene	32.0	3.4	0.08	0.1	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
1-Chlorohexane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
2,2-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
2-Butanone	37000.0	Not listed.	0.3	Not listed.	<0.012	<0.011	<0.01	<0.01	<0.011	<0.011	<0.01
2-Chloroethyl vinyl ether	Not listed.	No value.	Not listed.	Not listed.	<0.012	<0.011	<0.01	<0.01	<0.011	<0.011	<0.01
2-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
2-Hexanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.012	<0.011	<0.01	<0.01	<0.011	<0.011	<0.01
4-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
4-Methyl-2-pentanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.012	<0.011	<0.01	<0.01	<0.011	<0.011	<0.01
1-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	--	--	--	--
2-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	--	--	--	--
Acetone	Not listed.	1,600.0	Not listed.	0.8	<0.012	<0.011	<0.01	<0.01	<0.011	<0.011	<0.01
Acrolein	0.09	0.1	0.000008	Not listed.	--	--	--	--	--	--	--
Acrylonitrile	1.9	0.21	0.00007	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Benzene	6.4	0.65	0.003	0.002	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Bromobenzene	Not listed.	28.0	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Bromochloromethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Bromodichloromethane	9.6	1.0	0.03	0.03	<0.0061	<0.0053	**0.012**	**0.0076**	<0.0053	<0.0054	<0.0052
Bromoform	Not listed.	62.0	Not listed.	0.04	<0.0061	<0.0053	**0.014**	<0.005	<0.0053	<0.0054	<0.0052
Bromomethane	3.7	3.9	0.002	0.01	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Carbon disulfide	Not listed.	360.0	Not listed.	2.0	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Carbon tetrachloride	1.6	0.24	0.005	0.003	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Chlorobenzene	140.0	150.0	0.05	0.07	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Chloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Chloroform	0.38	0.24	0.03	0.03	<0.0061	<0.0053	**0.01**	**0.021**	<0.0053	<0.0054	<0.0052
Chloromethane	12.0	1.2	0.0005	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
cis-1,2-Dichloroethene	41.0	43.0	0.02	0.02	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
cis-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Dibromochloromethane	Not listed.	1.1	Not listed.	0.02	<0.0061	<0.0053	**0.015**	**0.015**	<0.0053	<0.0054	<0.0052
Dibromomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Dichlorodifluoromethane	90.0	94.0	6.0	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Ethyl benzene	68.0	230.0	0.4	0.7	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Ethyl methacrylate	Not listed.	140.0	Not listed.	Not listed.	--	--	--	--	--	--	--
Freon 113	Not listed.	5600.0	Not listed.	Not listed.	--	--	--	--	--	--	--
Freon 12	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	--	--	--	--
Hexachlorobutadiene	12.0	6.2	0.07	0.1	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Iodomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Isopropylbenzene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Methyl-t-Butylether	Not listed.	17.0	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Methylene Chloride	Not listed.	8.9	Not listed.	0.001	<0.0061	<0.0053	<0.005	<0.005	**0.0086**	**0.0071**	**0.0068**
n-Butylbenzene	Not listed.	140.0	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
n-Propylbenzene	Not listed.	140.0	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Naphthalene	53.0	56.0	0.01	4.0	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
p-Isopropyltoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
sec-Butylbenzene	Not listed.	110.0	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Styrene	Not listed.	1700.0	Not listed.	0.2	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Tert-Butylbenzene	Not listed.	130.0	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Tetrachloroethene	49.0	5.7	0.005	0.003	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Toluene	180.0	520.0	0.2	0.6	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
trans-1,2-Dichloroethene	60.0	63.0	0.02	0.03	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
trans-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Trichloroethene	16.0	2.8	0.04	0.003	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Trichlorofluoromethane	Not listed.	390.0	Not listed.	Not listed.	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Vinyl acetate	Not listed.	430.0	Not listed.	8.0	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
Vinyl chloride	0.21	0.15	0.0004	0.0007 (child)	<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052
o-Xylene	63.0 (Total)	210.0 (Total)	5.0 (Total)	10.0 (total)	--	--	--	--	--	--	--
p/m-Xylene					--	--	--	--	--	--	--
Xylene (total)					<0.0061	<0.0053	<0.005	<0.005	<0.0053	<0.0054	<0.0052

Notes:
[1]: New Mexico Environment Department Hazardous Waste Bureau & Ground Water Quality Bureau Voluntary Remediation Program Soil Screening Levels, 18 December 2001
[2]: Environmental Protection Agency, Region IX Residential Preliminary Remediation Goals, 1 November 2000 edition
[3]: mg/kg – milligrams per kilogram
[4]: Sample identification as appears on analytical results.
[5]: Internal primary laboratory duplicate of HWSF-SB08-(24.5-25.0).

Table 7-2.
Hazardous Waste Storage Facility Evaporation Tank Closure Investigation Soil Sampling Results
continued

Analyte List for EPA Method 8260 (Volatile Organic Compounds)	Soil Screening Levels for Residential Human Exposure Scenario		Dilution Attenuation Factors (DAF) for Soil Contaminant Migration to Groundwater		Sample Identification Number [4]						
	NMED HWB/GWQB SSLs [1] (mg/kg) [2]	EPA, Region IX PRGs [3] (mg/kg)	NMED DAF 1 (mg/kg)	EPA, Region IX DAF 1 (mg/kg)	HWSF-SB09-(11.5-12.0) (mg/kg)	HWSF-SB09-(19.5-20.0) (mg/kg)	HWSF-SB09-(24.5-25.0) (mg/kg)	HWSF-SB10-(1.5-2.0) (mg/kg)	HWSF-SB10-(3.5-4.0) (mg/kg)	HWSF-SB10-(5.5-6.0) (mg/kg)	HWSF-SB10-(11.0-12.0) (mg/kg)
Sample Date					**12-17-01**	**12-17-01**	**12-17-01**	**12-17-01**	**12-17-01**	**12-17-01**	**12-17-01**
Sample Time					**1220**	**1300**	**1320**	**1425**	**1437**	**1443**	**1450**
1,1,1,2-Tetrachloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
1,1,1-Trichlorethane	510.0	630.0	0.003	0.1	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
1,1,2,2-Tetrachloroethane	3.6	0.38	0.002	0.0002	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
1,1,2-Trichloroethane	7.9	0.84	0.003	0.0009	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
1,1-Dichloroethane	560.0	590.0	0.007	1.0	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
1,1-Dichloroethene	8.1	0.054	0.003	0.003	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
1,1-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
1,2,3-Trichlorobenzene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
1,2,3-Trichloropropane	Not listed.	0.0014	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
1,2,4-Trichlorobenzene	520.0	650.0	0.5	0.3	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
1,2,4-Trimethylbenzene	Not listed.	52.0	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
1,2-Dibromo-3-chloropropane	Not listed.	0.45	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
1,2-Dibromoethane	0.053	0.0063	0.00002	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
1,2-Dichlorobenzene	85.0	370.0	0.4	0.9	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
1,2-Dichloroethane	3.3	0.35	0.001	0.001	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
1,2-Dichloropropane	Not listed.	0.35	Not listed.	0.001	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
1,3,5-Trimethylbenzene	Not listed.	21.0	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
1,3-Dichlorobenzene	12.0	13.0	0.004	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
1,3-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
1,4-Dichloro-2-butene	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.05	--	--	--	--	--
1,4-Dichlorobenzene	32.0	3.4	0.08	0.1	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
1-Chlorohexane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
2,2-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
2-Butanone	37000.0	Not listed.	0.3	Not listed.	<0.011	<0.01	<0.01	<0.011	<0.011	<0.011	<0.011
2-Chloroethyl vinyl ether	Not listed.	No value.	Not listed.	Not listed.	<0.011	<0.01	<0.01	<0.011	<0.011	<0.011	<0.011
2-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
2-Hexanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.011	<0.01	<0.01	<0.011	<0.011	<0.011	<0.011
4-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
4-Methyl-2-pentanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.011	<0.01	<0.01	<0.011	<0.011	<0.011	<0.011
1-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.025	--	--	--	--	--
2-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.025	--	--	--	--	--
Acetone	Not listed.	1,600.0	Not listed.	0.8	<0.011	<0.01	<0.01	<0.011	<0.011	<0.011	<0.011
Acrolein	0.09	0.1	0.000008	Not listed.	--	--	--	--	--	--	--
Acrylonitrile	1.9	0.21	0.00007	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Benzene	6.4	0.65	0.003	0.002	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Bromobenzene	Not listed.	28.0	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Bromochloromethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Bromodichloromethane	9.6	1.0	0.03	0.03	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Bromoform	Not listed.	62.0	Not listed.	0.04	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Bromomethane	3.7	3.9	0.002	0.01	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Carbon disulfide	Not listed.	360.0	Not listed.	2.0	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Carbon tetrachloride	1.6	0.24	0.005	0.003	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Chlorobenzene	140.0	150.0	0.05	0.07	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Chloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Chloroform	0.38	0.24	0.03	0.03	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Chloromethane	12.0	1.2	0.0005	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
cis-1,2-Dichloroethene	41.0	43.0	0.02	0.02	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
cis-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Dibromochloromethane	Not listed.	1.1	Not listed.	0.02	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Dibromomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Dichlorodifluoromethane	90.0	94.0	6.0	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Ethyl benzene	68.0	230.0	0.4	0.7	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Ethyl methacrylate	Not listed.	140.0	Not listed.	Not listed.	--	<0.025	--	--	--	--	--
Freon 113	Not listed.	5600.0	Not listed.	Not listed.	--	<0.035	--	--	--	--	--
Freon 12	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.05	--	--	--	--	--
Hexachlorobutadiene	12.0	6.2	0.07	0.1	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Iodomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Isopropylbenzene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Methyl-t-Butylether	Not listed.	17.0	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Methylene Chloride	Not listed.	8.9	Not listed.	0.001	**0.0064**	**0.0058**	**0.0054**	**0.0058**	**0.0058**	**0.0053 J**	<0.0053
n-Butylbenzene	Not listed.	140.0	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
n-Propylbenzene	Not listed.	140.0	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Naphthalene	53.0	56.0	0.01	4.0	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
p-Isopropyltoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
sec-Butylbenzene	Not listed.	110.0	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Styrene	Not listed.	1700.0	Not listed.	0.2	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Tert-Butylbenzene	Not listed.	130.0	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Tetrachloroethene	49.0	5.7	0.005	0.003	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Toluene	180.0	520.0	0.2	0.6	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
trans-1,2-Dichloroethene	60.0	63.0	0.02	0.03	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
trans-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Trichloroethene	16.0	2.8	0.04	0.003	<0.0053	**0.0033 J**	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Trichlorofluoromethane	Not listed.	390.0	Not listed.	Not listed.	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Vinyl acetate	Not listed.	430.0	Not listed.	8.0	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
Vinyl chloride	0.21	0.15	0.0004	0.0007 (child)	<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053
o-Xylene	63.0 (Total)	210.0 (Total)	5.0 (Total)	10.0 (total)	--	<0.005	--	--	--	--	--
p/m-Xylene					--	<0.01	--	--	--	--	--
Xylene (total)					<0.0053	<0.0052	<0.0051	<0.0053	<0.0055	<0.0054	<0.0053

Notes:
[1]: New Mexico Environment Department Hazardous Waste Bureau & Ground Water Quality Bureau Voluntary Remediation Program Soil Screening Levels, 18 December 2001
[2]: Environmental Protection Agency, Region IX Residential Preliminary Remediation Goals, 1 November 2000 edition
[3]: mg/kg – milligrams per kilogram
[4]: Sample identification as appears on analytical results.

Table 7-2.
Hazardous Waste Storage Facility Evaporation Tank Closure Investigation Soil Sampling Results
continued

Analyte List for EPA Method 8260 (Volatile Organic Compounds)	Soil Screening Levels for Residential Human Exposure Scenario		Dilution Attenuation Factors (DAF) for Soil Contaminant Migration to Groundwater		Sample Identification Number [4]						
	NMED HWB/GWQB SSLs [1] (mg/kg) [2]	EPA, Region IX PRGs [3] (mg/kg)	NMED DAF 1 (mg/kg)	EPA, Region IX DAF 1 (mg/kg)	HWSF-SB10-(11.0-12.0)-QA (mg/kg)	HWSF-SB10-(19.5-20.0) (mg/kg)	HWSF-SB10-(24.5-25.0) (mg/kg)	HWSF-SB11-(1.5-2.0) (mg/kg)	HWSF-SB11-(3.5-4.0) (mg/kg)	HWSF-SB11-(5.5-6.0) (mg/kg)	HWSF-SB11-(11.5-12.0) (mg/kg)
Sample Date					**12-17-01**	**12-17-01**	**12-17-01**	**12-19-01**	**12-19-01**	**12-19-01**	**12-19-01**
Sample Time					**1450**	**1504**	**1522**	**0910**	**0915**	**0919**	**0927**
1,1,1,2-Tetrachloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
1,1,1-Trichlorethane	510.0	630.0	0.003	0.1	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
1,1,2,2-Tetrachloroethane	3.6	0.38	0.002	0.0002	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
1,1,2-Trichloroethane	7.9	0.84	0.003	0.0009	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
1,1-Dichloroethane	560.0	590.0	0.007	1.0	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
1,1-Dichloroethene	8.1	0.054	0.003	0.003	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
1,1-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
1,2,3-Trichlorobenzene	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
1,2,3-Trichloropropane	Not listed.	0.0014	Not listed.	Not listed.	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
1,2,4-Trichlorobenzene	520.0	650.0	0.5	0.3	--	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
1,2,4-Trimethylbenzene	Not listed.	52.0	Not listed.	Not listed.	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
1,2-Dibromo-3-chloropropane	Not listed.	0.45	Not listed.	Not listed.	--	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
1,2-Dibromoethane	0.053	0.0063	0.00002	Not listed.	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
1,2-Dichlorobenzene	85.0	370.0	0.4	0.9	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
1,2-Dichloroethane	3.3	0.35	0.001	0.001	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
1,2-Dichloropropane	Not listed.	0.35	Not listed.	0.001	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
1,3,5-Trimethylbenzene	Not listed.	21.0	Not listed.	Not listed.	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
1,3-Dichlorobenzene	12.0	13.0	0.004	Not listed.	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
1,3-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
1,4-Dichloro-2-butene	Not listed.	Not listed.	Not listed.	Not listed.	<0.05	--	--	--	<0.05	--	--
1,4-Dichlorobenzene	32.0	3.4	0.08	0.1	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
1-Chlorohexane	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
2,2-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
2-Butanone	37000.0	Not listed.	0.3	Not listed.	<0.025	<0.001	<0.01	<0.011	<0.011	<0.011	<0.01
2-Chloroethyl vinyl ether	Not listed.	No value.	Not listed.	Not listed.	<0.025	<0.001	<0.01	<0.011	<0.011	<0.011	<0.01
2-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
2-Hexanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.025	<0.001	<0.01	<0.011	<0.011	<0.011	<0.01
4-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
4-Methyl-2-pentanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.025	<0.001	<0.01	<0.011	<0.011	<0.011	<0.01
1-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	<0.025	--	--	--	<0.025	--	--
2-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	<0.025	--	--	--	<0.025	--	--
Acetone	Not listed.	1,600.0	Not listed.	0.8	<0.05	<0.001	<0.01	<0.011	<0.011	<0.011	<0.01
Acrolein	0.09	0.1	0.000008	Not listed.	<0.1	--	--	--	--	--	--
Acrylonitrile	1.9	0.21	0.00007	Not listed.	<0.1	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Benzene	6.4	0.65	0.003	0.002	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Bromobenzene	Not listed.	28.0	Not listed.	Not listed.	--	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Bromochloromethane	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Bromodichloromethane	9.6	1.0	0.03	0.03	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Bromoform	Not listed.	62.0	Not listed.	0.04	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Bromomethane	3.7	3.9	0.002	0.01	<0.025	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Carbon disulfide	Not listed.	360.0	Not listed.	2.0	<0.025	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Carbon tetrachloride	1.6	0.24	0.005	0.003	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Chlorobenzene	140.0	150.0	0.05	0.07	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Chloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.025	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Chloroform	0.38	0.24	0.03	0.03	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Chloromethane	12.0	1.2	0.0005	Not listed.	<0.025	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
cis-1,2-Dichloroethene	41.0	43.0	0.02	0.02	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
cis-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Dibromochloromethane	Not listed.	1.1	Not listed.	0.02	--	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Dibromomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Dichlorodifluoromethane	90.0	94.0	6.0	Not listed.	--	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Ethyl benzene	68.0	230.0	0.4	0.7	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Ethyl methacrylate	Not listed.	140.0	Not listed.	Not listed.	<0.025	--	--	--	<0.025	--	--
Freon 113	Not listed.	5600.0	Not listed.	Not listed.	<0.035	--	--	--	<0.035	--	--
Freon 12	Not listed.	Not listed.	Not listed.	Not listed.	<0.05	--	--	--	<0.05	--	--
Hexachlorobutadiene	12.0	6.2	0.07	0.1	--	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Iodomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.025	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Isopropylbenzene	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Methyl-t-Butylether	Not listed.	17.0	Not listed.	Not listed.	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Methylene Chloride	Not listed.	8.9	Not listed.	0.001	<0.05	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
n-Butylbenzene	Not listed.	140.0	Not listed.	Not listed.	--	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
n-Propylbenzene	Not listed.	140.0	Not listed.	Not listed.	--	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Naphthalene	53.0	56.0	0.01	4.0	<0.025	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
p-Isopropyltoluene	Not listed.	Not listed.	Not listed.	Not listed.	--	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
sec-Butylbenzene	Not listed.	110.0	Not listed.	Not listed.	--	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Styrene	Not listed.	1700.0	Not listed.	0.2	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Tert-Butylbenzene	Not listed.	130.0	Not listed.	Not listed.	--	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Tetrachloroethene	49.0	5.7	0.005	0.003	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Toluene	180.0	520.0	0.2	0.6	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
trans-1,2-Dichloroethene	60.0	63.0	0.02	0.03	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
trans-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Trichloroethene	16.0	2.8	0.04	0.003	<0.005	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Trichlorofluoromethane	Not listed.	390.0	Not listed.	Not listed.	<0.025	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Vinyl acetate	Not listed.	430.0	Not listed.	8.0	<0.025	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
Vinyl chloride	0.21	0.15	0.0004	0.0007 (child)	<0.01	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052
o-Xylene	63.0 (Total)	210.0 (Total)	5.0 (Total)	10.0 (total)	<0.005	--	--	--	<0.005	--	--
p/m-Xylene					<0.01	--	--	--	<0.01	--	--
Xylene (total)					--	<0.005	<0.0051	<0.0057	<0.0056	<0.0053	<0.0052

Notes:
[1]: New Mexico Environment Department Hazardous Waste Bureau & Ground Water Quality Bureau Voluntary Remediation Program Soil Screening Levels, 18 December 2001
[2]: Environmental Protection Agency, Region IX Residential Preliminary Remediation Goals, 1 November 2000 edition
[3]: mg/kg – milligrams per kilogram
[4]: Sample identification as appears on analytical results.

Table 7-2.
Hazardous Waste Storage Facility Evaporation Tank Closure Investigation Soil Sampling Results
continued

Analyte List for EPA Method 8260 (Volatile Organic Compounds)	Soil Screening Levels for Residential Human Exposure Scenario		Dilution Attenuation Factors (DAF) for Soil Contaminant Migration to Groundwater		Sample Identification Number [4]						
	NMED HWB/GWQB SSLs [1] (mg/kg) [2]	EPA, Region IX PRGs [3] (mg/kg)	NMED DAF 1 (mg/kg)	EPA, Region IX DAF 1 (mg/kg)	HWSF-SB11-(19.5-20.0) (mg/kg)	HWSF-SB11-(24.5-25.0) (mg/kg)	HWSF-SB12-(1.5-2.0) (mg/kg)	HWSF-SB12-(3.5-4.0) (mg/kg)	HWSF-SB12-(5.5-6.0) (mg/kg)	HWSF-SB12-(11.0-12.0) (mg/kg)	HWSF-SB12-(11.0-12.0)-QA (mg/kg)
Sample Date					12-19-01	12-19-01	12-19-01	12-19-01	12-19-01	12-19-01	12-19-01
Sample Time					0950	1005	0744	0750	0756	0805	0805
1,1,1,2-Tetrachloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
1,1,1-Trichlorethane	510.0	630.0	0.003	0.1	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
1,1,2,2-Tetrachloroethane	3.6	0.38	0.002	0.0002	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
1,1,2-Trichloroethane	7.9	0.84	0.003	0.0009	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
1,1-Dichloroethane	560.0	590.0	0.007	1.0	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
1,1-Dichloroethene	8.1	0.054	0.003	0.003	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
1,1-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	--
1,2,3-Trichlorobenzene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	--
1,2,3-Trichloropropane	Not listed.	0.0014	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
1,2,4-Trichlorobenzene	520.0	650.0	0.5	0.3	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	--
1,2,4-Trimethylbenzene	Not listed.	52.0	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
1,2-Dibromo-3-chloropropane	Not listed.	0.45	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	--
1,2-Dibromoethane	0.053	0.0063	0.00002	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
1,2-Dichlorobenzene	85.0	370.0	0.4	0.9	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
1,2-Dichloroethane	3.3	0.35	0.001	0.001	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
1,2-Dichloropropane	Not listed.	0.35	Not listed.	0.001	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
1,3,5-Trimethylbenzene	Not listed.	21.0	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
1,3-Dichlorobenzene	12.0	13.0	0.004	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
1,3-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	--
1,4-Dichloro-2-butene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	--	--	--	<0.05
1,4-Dichlorobenzene	32.0	3.4	0.08	0.1	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
1-Chlorohexane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	--
2,2-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	--
2-Butanone	37000.0	Not listed.	0.3	Not listed.	<0.01	<0.01	<0.012	<0.011	<0.01	<0.011	<0.025
2-Chloroethyl vinyl ether	Not listed.	No value.	Not listed.	Not listed.	<0.01	<0.01	<0.012	<0.011	<0.01	<0.011	<0.025
2-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	--
2-Hexanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.01	<0.01	<0.012	<0.011	<0.01	<0.011	<0.025
4-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	--
4-Methyl-2-pentanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.01	<0.01	<0.012	<0.011	<0.01	<0.011	<0.025
1-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	--	--	--	<0.025
2-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	--	--	--	<0.025
Acetone	Not listed.	1,600.0	Not listed.	0.8	<0.01	<0.01	<0.012	<0.011	<0.01	<0.011	<0.05
Acrolein	0.09	0.1	0.000008	Not listed.	--	--	--	--	--	--	<0.1
Acrylonitrile	1.9	0.21	0.00007	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.1
Benzene	6.4	0.65	0.003	0.002	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
Bromobenzene	Not listed.	28.0	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	--
Bromochloromethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	--
Bromodichloromethane	9.6	1.0	0.03	0.03	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
Bromoform	Not listed.	62.0	Not listed.	0.04	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
Bromomethane	3.7	3.9	0.002	0.01	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.025
Carbon disulfide	Not listed.	360.0	Not listed.	2.0	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.025
Carbon tetrachloride	1.6	0.24	0.005	0.003	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
Chlorobenzene	140.0	150.0	0.05	0.07	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
Chloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.025
Chloroform	0.38	0.24	0.03	0.03	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
Chloromethane	12.0	1.2	0.0005	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.025
cis-1,2-Dichloroethene	41.0	43.0	0.02	0.02	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
cis-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
Dibromochloromethane	Not listed.	1.1	Not listed.	0.02	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	--
Dibromomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
Dichlorodifluoromethane	90.0	94.0	6.0	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	--
Ethyl benzene	68.0	230.0	0.4	0.7	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
Ethyl methacrylate	Not listed.	140.0	Not listed.	Not listed.	--	--	--	--	--	--	<0.025
Freon 113	Not listed.	5600.0	Not listed.	Not listed.	--	--	--	--	--	--	<0.035
Freon 12	Not listed.	Not listed.	Not listed.	Not listed.	--	--	--	--	--	--	<0.05
Hexachlorobutadiene	12.0	6.2	0.07	0.1	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	--
Iodomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.025
Isopropylbenzene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	--
Methyl-t-Butylether	Not listed.	17.0	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
Methylene Chloride	Not listed.	8.9	Not listed.	0.001	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.05
n-Butylbenzene	Not listed.	140.0	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	--
n-Propylbenzene	Not listed.	140.0	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	--
Naphthalene	53.0	56.0	0.01	4.0	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.025
p-Isopropyltoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	--
sec-Butylbenzene	Not listed.	110.0	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	--
Styrene	Not listed.	1700.0	Not listed.	0.2	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
Tert-Butylbenzene	Not listed.	130.0	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	--
Tetrachloroethene	49.0	5.7	0.005	0.003	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
Toluene	180.0	520.0	0.2	0.6	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
trans-1,2-Dichloroethene	60.0	63.0	0.02	0.03	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
trans-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
Trichloroethene	16.0	2.8	0.04	0.003	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.005
Trichlorofluoromethane	Not listed.	390.0	Not listed.	Not listed.	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.025
Vinyl acetate	Not listed.	430.0	Not listed.	8.0	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.025
Vinyl chloride	0.21	0.15	0.0004	0.0007 (child)	<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	<0.01
o-Xylene	63.0 (Total)	210.0 (Total)	5.0 (Total)	10.0 (total)	--	--	--	--	--	--	<0.005
p/m-Xylene					--	--	--	--	--	--	<0.01
Xylene (total)					<0.0051	<0.0051	<0.0062	<0.0055	<0.0052	<0.0055	--

Notes:
[1]: New Mexico Environment Department Hazardous Waste Bureau & Ground Water Quality Bureau Voluntary Remediation Program Soil Screening Levels, 18 December 2001
[2]: Environmental Protection Agency, Region IX Residential Preliminary Remediation Goals, 1 November 2000 edition
[3]: mg/kg – milligrams per kilogram
[4]: Sample identification as appears on analytical results.

Table 7-2.
Hazardous Waste Storage Facility Evaporation Tank Closure Investigation Soil Sampling Results
concluded

Analyte List for EPA Method 8260 (Volatile Organic Compounds)	Soil Screening Levels for Residential Human Exposure Scenario		Dilution Attenuation Factors (DAF) for Soil Contaminant Migration to Groundwater		Sample Identification Number[4]					
	NMED HWB/GWQB SSLs [1] (mg/kg) [2]	EPA, Region IX PRGs [3] (mg/kg)	NMED DAF 1 (mg/kg)	EPA, Region IX DAF 1 (mg/kg)	HWSF-SB12-(19.5-20.0) (mg/kg)	HWSF-SB12-(24.5-25.0) (mg/kg)	HWSF-Trip Blank – 01 [5] (mg/L)	HWSF-TB-02 [6] (mg/L)	HWSF- TB-02 RA1 [7] (mg/L)	HWSF- TB-03 [8] (mg/L)
Sample Date					**12-19-01**	**12-19-01**	**12-17-01**	**12-18-01**	**--**	**12-19-01**
Sample Time					**0830**	**0845**	**1542**	**0830**	**--**	**0720**
1,1,1,2-Tetrachloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
1,1,1-Trichlorethane	510.0	630.0	0.003	0.1	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane	3.6	0.38	0.002	0.0002	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane	7.9	0.84	0.003	0.0009	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethane	560.0	590.0	0.007	1.0	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethene	8.1	0.054	0.003	0.003	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
1,1-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
1,2,3-Trichlorobenzene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
1,2,3-Trichloropropane	Not listed.	0.0014	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
1,2,4-Trichlorobenzene	520.0	650.0	0.5	0.3	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
1,2,4-Trimethylbenzene	Not listed.	52.0	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
1,2-Dibromo-3-chloropropane	Not listed.	0.45	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
1,2-Dibromoethane	0.053	0.0063	0.00002	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
1,2-Dichlorobenzene	85.0	370.0	0.4	0.9	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethane	3.3	0.35	0.001	0.001	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane	Not listed.	0.35	Not listed.	0.001	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
1,3,5-Trimethylbenzene	Not listed.	21.0	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
1,3-Dichlorobenzene	12.0	13.0	0.004	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
1,3-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
1,4-Dichloro-2-butene	Not listed.	Not listed.	Not listed.	Not listed.	<0.05	--	--	--	--	--
1,4-Dichlorobenzene	32.0	3.4	0.08	0.1	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
1-Chlorohexane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
2,2-Dichloropropane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
2-Butanone	37000.0	Not listed.	0.3	Not listed.	<0.011	<0.01	<0.005	<0.005	<0.005	<0.005
2-Chloroethyl vinyl ether	Not listed.	No value.	Not listed.	Not listed.	<0.011	<0.01	<0.002	<0.002	<0.002	<0.002
2-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
2-Hexanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.011	<0.01	<0.005	<0.005	<0.005	<0.005
4-Chlorotoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
4-Methyl-2-pentanone	Not listed.	Not listed.	Not listed.	Not listed.	<0.011	<0.01	<0.005	<0.005	<0.005	<0.005
1-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	<0.025	--	--	--	--	--
2-Methylnaphthalene	Not listed.	Not listed.	Not listed.	Not listed.	<0.025	--	--	--	--	--
Acetone	Not listed.	1,600.0	Not listed.	0.8	<0.011	<0.01	<0.005	<0.005	<0.005	<0.005
Acrolein	0.09	0.1	0.000008	Not listed.	--	--	<0.005	<0.005	<0.005	<0.005
Acrylonitrile	1.9	0.21	0.00007	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Benzene	6.4	0.65	0.003	0.002	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Bromobenzene	Not listed.	28.0	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Bromochloromethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Bromodichloromethane	9.6	1.0	0.03	0.03	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Bromoform	Not listed.	62.0	Not listed.	0.04	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Bromomethane	3.7	3.9	0.002	0.01	<0.0054	<0.0051	<0.002	<0.002	<0.002	<0.002
Carbon disulfide	Not listed.	360.0	Not listed.	2.0	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Carbon tetrachloride	1.6	0.24	0.005	0.003	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Chlorobenzene	140.0	150.0	0.05	0.07	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Chloroethane	Not listed.	3.0	Not listed.	Not listed.	<0.0054	<0.0051	<0.002	<0.002	<0.002	<0.002
Chloroform	0.38	0.24	0.03	0.03	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Chloromethane	12.0	1.2	0.0005	Not listed.	<0.0054	<0.0051	<0.002	<0.002	<0.002	<0.002
cis-1,2-Dichloroethene	41.0	43.0	0.02	0.02	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
cis-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Dibromochloromethane	Not listed.	1.1	Not listed.	0.02	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Dibromomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Dichlorodifluoromethane	90.0	94.0	6.0	Not listed.	<0.0054	<0.0051	<0.002	<0.002	<0.002	<0.002
Ethyl benzene	68.0	230.0	0.4	0.7	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Ethyl methacrylate	Not listed.	140.0	Not listed.	Not listed.	<0.025	--	--	--	--	--
Freon 113	Not listed.	5600.0	Not listed.	Not listed.	<0.035	--	--	--	--	--
Freon 12	Not listed.	Not listed.	Not listed.	Not listed.	<0.05	--	--	--	--	--
Hexachlorobutadiene	12.0	6.2	0.07	0.1	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Iodomethane	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Isopropylbenzene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Methyl-t-Butylether	Not listed.	17.0	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Methylene Chloride	Not listed.	8.9	Not listed.	0.001	<0.0054	<0.0051	<0.002	<0.002	<0.002	<0.002
n-Butylbenzene	Not listed.	140.0	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
n-Propylbenzene	Not listed.	140.0	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Naphthalene	53.0	56.0	0.01	4.0	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
p-Isopropyltoluene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
sec-Butylbenzene	Not listed.	110.0	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Styrene	Not listed.	1700.0	Not listed.	0.2	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Tert-Butylbenzene	Not listed.	130.0	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	49.0	5.7	0.005	0.003	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Toluene	180.0	520.0	0.2	0.6	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
trans-1,2-Dichloroethene	60.0	63.0	0.02	0.03	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene	Not listed.	Not listed.	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Trichloroethene	16.0	2.8	0.04	0.003	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Trichlorofluoromethane	Not listed.	390.0	Not listed.	Not listed.	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Vinyl acetate	Not listed.	430.0	Not listed.	8.0	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
Vinyl chloride	0.21	0.15	0.0004	0.0007 (child)	<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001
o-Xylene	63.0 (Total)	210.0 (Total)	5.0 (Total)	10.0 (total)	<0.005	--	--	--	--	--
p/m-Xylene					<0.01	--	--	--	--	--
Xylene (total)					<0.0054	<0.0051	<0.001	<0.001	<0.001	<0.001

Notes:
(1): New Mexico Environment Department Hazardous Waste Bureau & Ground Water Quality Bureau Voluntary Remediation Program Soil Screening Levels, 18 December 2001
(2): Environmental Protection Agency, Region IX Residential Preliminary Remediation Goals, 1 November 2000 edition
(3): mg/kg – milligrams per kilogram
(4): Sample identification as appears on analytical results.
(5): Trip blank associated with soil samples from SB09 and SB10.
(6): Trip blank associated with soil samples from SB05, SB06, SB07, SB08, SB06-EB, and SB06-TapWater.
(7): Internal primary laboratory duplicate of HWSF-TB-02.
(8): Trip blank associated with soil samples from SB01, SB02, SB03, SB04, SB11, and SB12.

7.3 Groundwater Sample Results

All groundwater samples indicated no VOC concentrations above the laboratory DL. Physical characteristics of the groundwater indicated a pH ranging from 6.87-7.13, specific conductivity ranging from 15,800 to 31,000 microsiemens per centimeter (µS/cm), and TDS ranging from 13,400 to 18,000 milligrams per liter (mg/L). Copies of all groundwater sample analytical data are found in Appendices I and J. Analytical results for all groundwater samples are summarized in Table 7-3 on the following page.

7.4 Quality Control Sample Results

Copies of all QC sample analytical data is found in Appendices I and J with the soil and groundwater data. Analytical results for trip blanks, equipment blanks, and tap water samples are summarized below.

7.4.1 Trip Blanks

All VOCs analyzed were found to be at concentrations below the laboratory DL in all trip blanks. Analytical results for all trip blanks are summarized in Table 7-2 and 7-3.

7.4.2 Equipment Blanks and Tap Water Samples

In each of the equipment blank and tap water samples, there were several VOC detections that were above the laboratory DL but at concentrations several orders of magnitude below the NMED SSL for a residential exposure scenario. These compounds included bromodichloromethane, bromoform, chloroform, dibromochloromethane, and toluene. Due to the low concentrations detected and since the same compounds were also detected in several soil samples, the compounds are likely "noise" in the GC/MS. Analytical results for all trip blanks are summarized in Table 7-2 and 7-3.

8.0 DISCUSSION OF POTENTIAL EXPOSURE PATHWAYS

8.1 Soil Exposure Pathway

The soil exposure pathway assesses the threat to human health and the environment by direct exposure to the contaminant of concern. Based on analytical results, there is no surface soil contaminated by TCE (or any of its daughter products) above the NMED SSL for a residential exposure scenario (16.0 mg/kg) associated with the site. Arsenic was the sole contaminant detected above the NMED SSL for a residential exposure scenario (3.9 mg/kg). Arsenic concentrations detected ranged from 4.0 mg/kg to 7.5 mg/kg, which are below the NMED SSL for an industrial/occupational exposure scenario (17.0 mg/kg). SWMU 90 is located within a fenced compound on an institutionally controlled Department of Army facility, consequently making residential exposure highly unlikely. Clean fill material was used to grade the site for drainage purposes. No receptors are in imminent danger at this site. The soil exposure pathway is not complete.

Table 7-3.
Hazardous Waste Storage Facility Evaporation Tank Closure Investigation Groundwater Sampling Results.

Analyte List	Units	New Mexic WQCC Limit[1]	EPA MCL[2]	Sample Identification Number[3]									
				HWSF-TW01-1201	HWSF-TW02-1201	HWSF-TW03-1201	HWSF-TW03-1201-QA	HWSF-TW04-1201	HWSF-TW03-1201-TB[4]	HWSF-TW03-1201-QA-TB[5]	HWSF-TW04-1201-TB[6]	HWSF-TW04-1201-RB[7]	HWSF-Tap Water-1201[8]
Sample Date				**12-12-01**	**12-14-01**	**12-12-01**	**12-12-01**	**12-13-01**	**12-12-01**	**12-12-01**	**12-13-01**	**12-13-01**	**12-13-01**
Sample Time				**1532**	**1122**	**1342**	**1342**	**1515**	**1342**	**1342**	**1515**	**1545**	**1535**
Physical Characteristics													
pH (EPA 150.1)	unitless	6-9	6.5-8.5	**6.97**	**6.92**	**6.87**	**7.0**	**7.13**	--	--	--	--	--
Conductivity (EPA 120.1)	µS/cm[9]	N/A	N/A	**28000**	**26300**	**27200**	**15800**	**31000**	--	--	--	--	--
Total Dissolved Solids (EPA160.1)	mg/L[10]	1000.0	500.0	**17000**	**17000**	**18000**	**13400**	**18000**	--	--	--	--	--
Volatile Organic Compounds (EPA Method 8260)													
1,1,1,2-Tetrachloroethane	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,1-Trichlorethane	mg/L	0.06	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane	mg/L	0.01	Not listed.	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane	mg/L	0.01	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethane	mg/L	0.025	Not listed.	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethene	mg/L	0.005	0.007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloropropene	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
1,2,3-Trichlorobenzene	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
1,2,3-Trichloropropane	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2,4-Trichlorobenzene	mg/L	Not listed.	0.07	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
1,2,4-Trimethylbenzene	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dibromo-3-chloropropane	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
1,2-Dibromoethane	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichlorobenzene	mg/L	Not listed.	0.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethane	mg/L	0.01	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane	mg/L	Not listed.	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,3,5-Trimethylbenzene	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,3-Dichlorobenzene	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,3-Dichloropropane	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
1,4-Dichloro-2-butene	mg/L	Not listed.	Not listed.	--	--	--	<0.01	--	--	<0.01	--	--	--
1,4-Dichlorobenzene	mg/L	Not listed.	0.075	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1-Chlorohexane	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
2,2-Dichloropropane	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
2-Butanone	mg/L	Not listed.	Not listed.	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Chloroethyl vinyl ether	mg/L	Not listed.	Not listed.	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002
2-Chlorotoluene	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
2-Hexanone	mg/L	Not listed.	Not listed.	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
4-Chlorotoluene	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
4-Methyl-2-pentanone	mg/L	Not listed.	Not listed.	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1-Methylnaphthalene	mg/L	Not listed.	Not listed.	--	--	--	<0.005	--	--	<0.005	--	--	--
2-Methylnaphthalene	mg/L	Not listed.	Not listed.	--	--	--	<0.005	--	--	<0.005	--	--	--
Acetone	mg/L	Not listed.	Not listed.	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005
Acrolein	mg/L	Not listed.	Not listed.	<0.005	<0.005	<0.005	<0.02	<0.005	<0.005	<0.02	<0.005	<0.005	<0.005
Acrylonitrile	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.02	<0.001	<0.001	<0.02	<0.001	<0.001	<0.001
Benzene	mg/L	0.01	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromobenzene	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
Bromochloromethane	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
Bromodichloromethane	mg/L	Not listed.	0.08	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.0027**	**0.0015**
Bromoform	mg/L	Not listed.	0.08	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.0012**
Bromomethane	mg/L	Not listed.	Not listed.	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002
Carbon disulfide	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001
Carbon tetrachloride	mg/L	0.01	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chlorobenzene	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chlorodibromomethane	mg/L	Not listed.	0.08	--	--	--	<0.001	--	--	<0.001	--	--	--
Chloroethane	mg/L	Not listed.	Not listed.	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002
Chloroform	mg/L	0.1	0.08	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.0044**	**0.00072 J**
Chloromethane	mg/L	Not listed.	Not listed.	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002
cis-1,2-Dichloroethene	mg/L	Not listed.	0.07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cis-1,3-Dichloropropene	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dibromochloromethane	mg/L	Not listed.	0.08	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	**0.0018**	**0.0018**
Dibromomethane	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dichlorodifluoromethane	mg/L	Not listed.	Not listed.	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002
Ethyl benzene	mg/L	0.75	0.7	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
Ethyl methacrylate	mg/L	Not listed.	Not listed.	--	--	--	<0.005	--	--	<0.005	--	--	--
Freon 113	mg/L	Not listed.	Not listed.	--	--	--	<0.005	--	--	<0.005	--	--	--
Freon 12	mg/L	Not listed.	Not listed.	--	--	--	<0.01	--	--	<0.01	--	--	--
Hexachlorobutadiene	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
Iodomethane	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001
Isopropylbenzene	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
Methyl-t-Butylether	mg/L	Not listed.	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Methylene Chloride	mg/L	0.1	Not listed.	<0.002	<0.002	<0.002	<0.01	<0.002	<0.002	<0.01	<0.002	**0.069**	<0.002
n-Butylbenzene	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
n-Propylbenzene	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
Naphthalene	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001
p-Isopropyltoluene	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
sec-Butylbenzene	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
Styrene	mg/L	Not listed.	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Tert-Butylbenzene	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
Tetrachloroethene	mg/L	0.02	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	mg/L	0.75	1.0	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,2-Dichloroethene	mg/L	Not listed.	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichloroethene	mg/L	0.1	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichlorofluoromethane	mg/L	Not listed.	Not listed.	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001
Vinyl acetate	mg/L	Not listed.	Not listed.	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl chloride	mg/L	0.001	0.002	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001
o-Xylene	mg/L	0.62 (Total)	10.0 (Total)	--	--	--	<0.001	--	--	<0.001	--	--	--
p/m-Xylene	mg/L			--	--	--	<0.002	--	--	<0.002	--	--	--
Xylene (total)	mg/L			<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001

Notes:
(1): New Mexico Environment Department Hazardous Waste Bureau & Ground Water Quality Bureau Voluntary Remediation Program Residential Soil Screening Levels, 18 December 2001
(2): Environmental Protection Agency, Region IX Residential Preliminary Remediation Goals, 1 November 2000 edition
(3) : Sample identification as appears on analytical results.
(4) : Trip blank associated with groundwater samples collected from TW01 and TW03.
(5) : Trip blank associated with the quality assurance groundwater sample collected from TW03.
(6) : Trip blank associated with groundwater samples collected from TW02, TW04, TapWater-1201, and TW04-1201-RB.
(6) : Equipment blank collected following completion of sampling at TW04.
(7) : Tap water sample associated with HWSF-TW04-RB. Tap water was used as the initial equipment rinse during decontamination.
(8) : µS/cm – microsiemens per centimeter
(10) : mg/L – milligrams per liter

8.2 Groundwater Exposure Pathway

The groundwater exposure pathway assesses the threat to groundwater by a contaminant release from soil. All groundwater samples collected during the December 2001 sampling event indicated no VOC concentrations detectable above the laboratory DL. The highest constituent concentrations found in the subsurface soil above the laboratory DL for all investigations are summarized in Table 8-1 below.

Table 8-1.
NMED and EPA, Region IX Dilution Attenuation Factors 1 and 20 for Highest Concentration of Constituents Detected in the Subsurface Soil

Constituent	Highest Concentration Detected	Units	NMED SSLs (1)		EPA Region IX PRGs (2)	
			DAF 1 (3)	DAF 20 (4)	DAF 1	DAF 20
Volatile Organic Compounds						
Acetone	0.024	mg/kg (5)	Not listed	Not listed	0.8	16.0
Bromodichloromethane	0.018	mg/kg	0.03	0.7	0.03	0.6
Bromoform	0.014	mg/kg	0.02	0.3	0.04	0.8
Chloroform	0.033	mg/kg	0.03	0.5	0.03	0.6
Dibromochloromethane	0.015	mg/kg	Not listed	Not listed	0.02	0.4
Methylene Chloride	0.0086	mg/kg	Not listed	Not listed	0.001	0.02
Toluene	0.0023	mg/kg	0.2	5.0	0.6	12.0
Trichloroethene	0.0033	mg/kg	0.04	0.7	0.003	0.06
Inorganic Non-metals						
Total Cyanide	82.0	mg/kg	0.05	1.0	Not listed	Not listed
Metals						
Total Arsenic	7.5	mg/kg	3.0	60.0	1.0	29.0
Total Barium	190.0	mg/kg	40.0	800.0	82.0	1600.0
Total Cobalt	6.0	mg/kg	0.008	0.2	Not listed	Not listed
Total Copper	15.0	mg/kg	400	7000.0	Not listed	Not listed
Total Lead	15.0	mg/kg	0.008	0.2	Not listed	Not listed
Total Nickel	7.5	mg/kg	10.0	300.0	7.0	130.0
Total Silver	4.5	mg/kg	0.4	8.0	2.0	34.0
Total Tin	43.0	mg/kg	Not listed	Not listed	Not listed	Not listed
Total Vanadium	20.0	mg/kg	0.04	0.9	300.0	6000.0
Total Zinc	74.0	mg/kg	60.0	1000.0	620.0	12000.0

Notes: (1): New Mexico Environment Department Hazardous Waste Bureau & Ground Water Quality Bureau Voluntary Remediation Program Soil Screening Levels, 18 December 2001
(2): Environmental Protection Agency, Region IX Residential Preliminary Remediation Goals, 1 November 2000 edition. Region IX values were used (instead of Region VI) because Region IX values are the most current EPA health-based screening levels.
(3): DAF 1 – Soil leachate dilution attenuation factor of 1 prior to contact with groundwater.
(4): DAF 20 – Soil leachate dilution attenuation factor of 20 prior to contact with groundwater.
(5): mg/kg – milligrams per kilogram

The highest TCE concentration detected during the December 2001 sampling event was 0.0033 mg/kg. The NMED SSL for contaminant migration to groundwater with an assumed dilution attenuation factor of 1 (DAF 1) is 0.04 mg/kg. No TCE daughter products were detected above the laboratory DL. Chloroform (0.0033 mg/kg) and MeCl (0.0086 mg/kg), which are common laboratory introduced contaminants, were found to be above the conservative NMED or EPA DAF 1 values (0.03 mg/kg and 0.001 mg/kg respectively). Both constituents are below the DAF 20 values (0.5 mg/kg and 0.02 mg/kg respectively), which assume a 20-fold dilution of the soil leachate prior to contact with groundwater.

Cyanide, arsenic, barium, cobalt, lead, silver, vanadium, and zinc, which were detected during the October 1992 and February 1993 investigations, exceed the NMED SSL DAF 1 value. Only cyanide, cobalt, lead, and vanadium are above the NMED SSL DAF 20 value as well. Tin does not have an NMED or EPA Region IX DAF value. As stated in Section 5.3.3, groundwater beneath the site is in excess of 200 ft (61 m) bgs. The TDS concentration in the groundwater beneath the site is in excess of 13,000 mg/L, which is too high for human consumption without significant and costly treatment. The nearest drinking water intake well is in excess of 5 mi (8.0 km) in all directions. Therefore it is no expected that the constituents discussed above will adversely affect the groundwater at the HWSF. The groundwater exposure pathway is not complete.

8.3 Surface Water Exposure Pathway

There are no perennial surface water bodies at the site, nor are there any aquatic life forms that could have been affected by a historical release. There is no potential for future releases from SWMU 90 because the evaporation tank is removed and the site is covered with clean backfill material. The surface water exposure pathway is not complete.

8.4 Air Exposure Pathway

Based on analytical results, there is no surface soil contamination to volatilize into the air. The air exposure pathway is not complete.

9.0 CONCLUSIONS AND RECOMMENDATIONS

Soil samples collected from beneath the former tank location during October 1992 were analyzed for TCLP concentrations of VOCs, SVOCs, metals, and for total concentrations of cyanide. Analytical results indicated several concentrations of TCLP-TCE and total cyanide above laboratory detection limits. The highest cyanide concentration detected is below the NMED soil screening level (SSL) for a residential exposure scenario (NMED, 2000).

Analytical results from additional soil samples collected during February 1993 indicated concentrations of total arsenic, barium, cobalt, copper, cyanide, lead, nickel, silver, tin, vanadium, and zinc above laboratory detection limits. Of these, arsenic was the only constituent identified with a total concentration above the NMED SSL for a residential exposure scenario (NMED, 2000). However, the highest arsenic concentration is below the NMED SSL for an industrial/occupational exposure scenario (NMED, 2000). WSMR asserts that several of the metals detected at elevated concentrations (specifically arsenic) are natural background levels for the Tularosa Basin. This assertion will be verified during the upcoming WSMR background soil investigation.

The evaporation tank was completely removed from the site in January 1995 and disposed as non-hazardous waste (with concurrence from the NMED). Additional subsurface soil samples were collected from twelve 25 feet (7.6 meter) deep soil borings beneath the former tank location for TCLP-TCE analysis during January 1995. Analytical results indicated no concentrations of TCE above the laboratory detection limit for TCLP analysis.

Analytical results from the December 2001 investigation, which consisted of a soil gas survey, subsurface soil sampling, and groundwater sampling at existing test wells at the HWSF, indicated no VOCs (specifically TCE and its daughter products) above any NMED SSL for a residential exposure scenario (NMED, 2000) or New Mexico Water Quality Control Commission drinking water standards (NM WQCC, 1996).

Based on the analytical data collected from all investigations, WSMR believes that all potential exposure pathways (soil, groundwater, air, and surface water) are considered incomplete. In accordance with the 2001 Clean Closure Plan, the site was backfilled with clean soil during February 2002 and graded to promote positive surface water drainage away from the SWMU 90. WSMR believes that no further action is required at SWMU 90. Following concurrence by the NMED-HWB, WSMR plans to prepare and submit a No Further Action Petition to the NMED-HWB for review and comment.

10.0 MINIMUM REPORTING REQUIREMENTS

As specified in Section 17.0 of the Clean Closure Plan, the following minimum reporting requirements must be included in the final closure report. Including the data presented in the historical closure reports all requirements are addressed. Each requirement is individually in the Table 10-1 below.

Table 10-1. Minimum Reporting Requirements Crosswalk

Reporting Requirement listed in the Clean Closure Plan	Location of Satisfied Requirement in this Closure Report
1. The details of any variance from the approved closure plan and the reason for the variance.	Section 6.0
2. The survey plat.	Appendix B (see Appendix D, page 4)
3. A narrative summary of all testing done during closure activities.	Sections 3.0, 5.0, and 7.0
4. A summary of the closure activities.	Sections 3.0, 5.0, and 7.0
5. Measures to control particulate emissions.	There was no demolition activities performed during the December 2001 Sampling Event, and thus no particulate emissions.
6. Disposal locations of all waste residues.	Waste disposal practices performed during previous investigations are discussed in the closure reports in Appendices B and C. Waste disposal practices from the December 2001 investigation are summarized in Section 5.5.
7. A certification of the accuracy of the report.	Page iii
8.1 Copies of the field logbook	Appendix F
8.2 Copies of all analytical data	Appendices H, I, and J
8.3 QA/QC documentation	Appendices H, I and J (with analytical data)
8.4 Chain of custody forms and records	Appendices H, I and J (with analytical data)
8.5 Waste Disposal Manifests	Section 5.5

REFERENCES

New Mexico Water Quality Control Commission, 1996. *New Mexico Water Quality Control Commission Regulations.* November 15, 1996. 83 pages.

New Mexico Environment Department, 2000. *New Mexico Environment Department Hazardous Waste Bureau and Ground Water Quality Bureau Voluntary Remediation Program Technical Background Document for Development of Soil Screening Levels.* December 18, 2000. 38 pages.

United States Environmental Protection Agency, Region IX, 2000. *Environmental Protection Agency, Region IX Preliminary Remediation Goals.* November 11, 2000.

White Sands Missile Range, 1993. *Final Closure Report, Evaporation Tank at Building 22895, EPA ID# 2750211235.* April 15, 1993. 24 pages.

White Sands Missile Range, 1995. *Final Hazardous Waste Storage Facility Evaporation Tank Closure.* April 4, 1995. 18 pages.

White Sands Missile Range, 2001. *Modification to the Approved Clean Closure Plan or the Hazardous Waste Storage Facility Evaporation Tank (SWMU 90/DSERTS 35), Revision 1.* June 2001. 28 pages.

APPENDIX A

Copies of Correspondence Letters between White Sands Missile Range and the New Mexico Environment Department

State of New Mexico
ENVIRONMENT DEPARTMENT
Harold Runnels Building
1190 St. Francis Drive, P.O. Box 26110
Santa Fe, New Mexico 87502
(505) 827-2850

BRUCE KING
GOVERNOR

JUDITH M. ESPINOSA
SECRETARY

RON CURRY
DEPUTY SECRETARY

Certified Mail
Return Receipt Requested

August 31, 1993

Dennis E. O'Brien
Colonel, U.S. Army
Deputy Commander
U.S. Army White Sands Missile Range
White Sands Missile Range, New Mexico 88002-5000

RE: NMED Denial of Clean Closure for Evaporation Tank at Building 22895 (NM2750211235)

Dear Colonel O'Brien:

The New Mexico Environment Department (NMED) hereby denies clean closure for the Evaporation Tank at Building 22895 located at White Sands Missile Range (WSMR). NMED's evaluation of the final Closure Report, dated April 15, 1993, and the information that WSMR submitted by letter dated July 15, 1993, indicates that the closure was completed in substantial conformance with the NMED approved closure plan, dated May 21, 1992. However, the data collected does not demonstrate that all hazardous wastes and hazardous waste residues have been removed or decontaminated at the unit. Specifically, trichloroethylene remains in subsoils beneath the unit above the Toxicity Characteristic Leaching Procedure (TCLP) regulatory concentrations.

In a meeting between the Hazardous and Radioactive Materials (HRMB) and WSMR staffs in Santa Fe on August 5, 1993, WSMR requested NMED's determination on whether or not the concrete slab at the unit should be sampled and analyzed as a soil sample. NMED does require that such materials be subject to the same sampling and analytical procedures as soil. However, since the concrete matrix is not as easily ingested as soil would be, NMED can consider health based concentrations for concrete on a case-by-case basis. NMED accepts the analytical data for the intact concrete presented in the Closure Report as meeting health based concentrations for clean closure of this material. If the concrete slab degrades in the future then NMED may reconsider this determination.

A post-closure plan must be submitted to the HRMB within ninety (90) days of your receipt of this letter. The post-closure plan must address all requirements of the New Mexico Hazardous Waste Management Regulations (HWMR-7), Part VI, Section 265.117 through 265.120. This plan must include, but is not limited to, requirements for closing the unit as a landfill, ensuring that the cover system meets the regulatory performance standards,

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GOVERNOR

JUDITH M. ESPINOSA
SECRETARY

RON CURRY
DEPUTY SECRETARY

September 8, 1994

Thomas A. Ladd, Director
Environment and Safety
Environmental Services Division
U.S. Army White Sands Missile Range
White Sands Missile Range, New Mexico 88002

Dear Mr. Ladd:

**RE: Closure and Post-Closure Plan Approval
Evaporation Tank at Building 22895
EPA I.D. No. NM2750211235**

On July 15, 1994, the Hazardous and Radioactive Materials Bureau (HRMB) of the New Mexico Environment Department (NMED) released the subject document for a thirty (30) day public comment period pursuant to the New Mexico Hazardous Waste Management Regulations (HWMR-7), Part VI, Sections 265.112(d)(4) and 265.118(f). The comment period ended on August 15, 1994, with no public comments received.

The NMED hereby approves the Closure and Post-Closure Plan for the Evaporation Tank at Building 22895 at White Sands Missile Range (WSMR). The approved plan includes the closure and post-closure document submitted by WSMR dated December 3, 1993, and the enclosed Conditions for Closure and Post-Closure Plan Approval. Closure and post-closure activities are to be conducted according to the schedule on Figure 3 of the approved plan.

Please contact Mr. Marc Sides of my staff at (505) 827-4308 if you have any questions.

Sincerely,

Kathleen M. Sisneros

Kathleen M. Sisneros, Director
Water and Waste Management Division

Enclosure

cc: Benito J. Garcia, Chief HRMB
Barbara Hoditschek, Program Manager HRMB
Marc Sides, HRMB IPA
Red-File

CONDITIONS FOR CLOSURE AND POST-CLOSURE PLAN APPROVAL

U.S. White Sands Missile Range

NM2750211235

Evaporation Tank at Building 22895

The closure and post-closure plan for the Evaporation Tank at Building 22895 as submitted by White Sands Missile Range (WSMR) dated December 3, 1993, and the following Conditions for Closure and Post-Closure Plan Approval constitutes the Approved Closure and Post-Closure Plan. The Conditions for Closure and Post-Closure Plan Approval take precedence over any conflicting or less stringent requirements found in the closure and post-closure plan as submitted by WSMR dated December 3, 1993. The New Mexico Hazardous Waste Management Regulations (HWMR-7) do not have the authority to approve the Health and Safety Plan, which is included in the closure and post-closure plan as Appendix E. The HRMB does not consider Appendix E as part of the Approved Closure and Post-Closure Plan.

1. DESIGN AND INSTALLATION SPECIFICATIONS FOR CLOSURE COVER SYSTEM

WSMR shall submit to NMED for approval all design and construction specifications for the final cover system (Section 10, page 15 of the closure and post-closure plan) if any of the criteria outlined on Figure 3 cause WSMR to proceed with the capping option. Such specifications shall be submitted to NMED within thirty (30) days of determining that a cover system must be installed over the closed unit.

2. POST-CLOSURE INSPECTIONS

With the information required by #1 above, WSMR shall submit a comprehensive post-closure inspection log and repair schedule. This shall detail all inspections and maintenance to be preformed on the cover system and any groundwater monitoring wells around the unit.

3. GROUNDWATER MONITORING PROGRAM

WSMR shall develop a complete groundwater monitoring plan for approval by NMED if the unit is capped and closed as a landfill with contaminated soil in-place. The groundwater monitoring plan shall address all regulatory requirements of HWMR-7, Part V, Section 264 Subpart F. The groundwater monitoring plan shall be submitted to NMED for approval within ninety (90) days of the decision to cap the unit. The groundwater monitoring plan shall evaluate the appropriateness of the monitoring wells located on Figure A-1 for monitoring the closed unit.

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GARY E. JOHNSON
GOVERNOR

MARK E. WEIDLER
SECRETARY

EDGAR T. THORNTON, III
DEPUTY SECRETARY

7/10/96

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

July 9, 1996

Thomas A. Ladd, Director
Environmental and Safety
Department of the Army
U.S. Army White Sands Missile Range
White Sands Missile Range, New Mexico 88002

RE: **HAZARDOUS WASTE STORAGE FACILITY EVAPORATION TANK CLOSURE VERIFICATION, EPA ID NO. NM2750211235**

Dear Mr. Ladd:

The New Mexico Environment Department (NMED) Hazardous and Radioactive Materials Bureau (HRMB) completed its review of the White Sands Missile Range (WSMR) Hazardous Waste Storage Facility Evaporation Tank Closure Final Report, dated April 4, 1995. WSMR submitted this data package to HRMB for closure verification and approval.

HRMB cannot verify that clean closure has been achieved at WSMR's Hazardous Waste Storage Facility Evaporation Tank. Enclosed is a copy of HRMB's technical concerns. Your response to these concerns is requested. If you have any questions regarding this matter, please contact Phillip Solano of my staff at (505) 827-1561.

Sincerely,

Barbara Hoditschek

Barbara Hoditschek, RCRA Permits Program Manager
Hazardous and Radioactive Materials Bureau

Enclosure (1)

cc: Benito Garcia, Chief HRMB
Kim Hill, HRMB TCP
Steve Pullen, HRMB DSMOA
David Neleigh, EPA Region VI (6PD-N)
WSMR Red File '96

Robin / Bobbi

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249

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Rec'd
10 JUL 1996
NRES

a total of 216 samples. No documentation or discussion is provided to substantiate that both laboratories were CLP-qualified.

3. Rinsate Analyses: Appendix E of the final report indicated that the analytical results for the rinsate from the decontamination of the equipment was not available at the time of the report. This information should be readily available and provided to NMED for completeness of the report.

4. Field and Laboratory QA/QC Samples: The final report fails to discuss the QA/QC procedures and protocol followed during the sampling event and at each of the laboratories. At a minimum, the report should discuss the following: duplicate samples; trip, field, and equipment blank samples; and matrix spike and matrix spike duplicate samples. If these samples were not obtained, rationale should be provided in the final report.

5. Analytical Methods and QA/QC Methodology Employed by both the Primary and Secondary Laboratories:

   A. The final report fails to specify the EPA-approved analytical methods (including extraction) utilized by the Applied Environmental Test Branch or provide documentation of QA/QC activities when analyzing the samples.

   B. The final report does not fully demonstrate the QA/QC procedures and protocol followed by both the primary and secondary laboratories.

6. Final Report Text Revisions:

   A. Section 6.0 fails to mention the results and conclusions drawn from the analytical results provided by the secondary laboratory and fails to provide a full description of the sampling activities (ie., the number of boreholes, QA/QC procedures, etc).

   B. Section 7.0 Recommendations fails to discuss any recommendations, but provides an elaborate discussion of ground water information.

   C. Field and Laboratory QA/QC (see #4 and #5 above).

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EDGAR T. THORNTON, III
DEPUTY SECRETARY

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

December 17, 1996

Harrison R. Orr, Environmental Scientist
Directorate of Environmental and Safety
Environmental Services Division
STEWS-ES-E
Department of the Army
U.S. Army White Sands Missile Range
White Sands Missile Range, New Mexico 88002-5048

RE: **Clean Closure Plan for the HAZARDOUS WASTE EVAPORATION TANK**
EPA ID NO. NM2750211235

Dear Mr. Orr:

As discussed in your telephone conversation on December 12, 1996, with Phillip Solano of my staff, I am enclosing a copy of the approved closure plan for the Hazardous Waste Evaporation Tank.

If I may be of further assistance, please do not hesitate to call me at (505) 827-1561.

Sincerely,

Robert S. (Stu) Dinwiddie, Manager
RCRA Permits Management Program

Enclosure

cc: WSMR Red File '96

State of New Mexico
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DEPUTY SECRETARY

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

December 2, 1997

Thomas A. Ladd, Director
Environmental and Safety
Department of the Army
U.S. Army White Sands Missile Range
White Sands Missile Range, New Mexico 88002

Dear Mr. Ladd:

RE: WHITE SANDS MISSILE RANGE, HAZARDOUS WASTE STORAGE FACILITY EVAPORATION TANK, BLDG. 22895, CERTIFICATION/VERIFICATION EPA ID NO. NM2750211235

The New Mexico Environment Department (NMED) Hazardous and Radioactive Materials Bureau (HRMB) has completed its review of the White Sands Missile Range (WSMR) sampling and analysis report for the Hazardous Waste Storage Facility (HWSF) Evaporation Tank Closure, letter dated July 2, 1997. HRMB determined that this sampling event has failed to show that clean closure has been achieved by WSMR for this hazardous waste unit.

On September 8, 1994, the NMED Water and Waste Management Division (WWMD) approved, with conditions, the WSMR Closure and Post-Closure Plan for the Evaporation Tank at Building 22895. This approval letter stated that the approved plan included the Closure and Post-Closure Care Plan dated December 3, 1993, with additional Conditions for Closure and Post Closure Plan Approval Condition #4, CLEAN CLOSURE DETERMINATION stated that:

> "Confirmatory sampling shall be conducted by WSMR to ensure that trichloroethylene (TCE) concentrations are below the Toxicity Characteristic Leaching Procedure (TCLP) regulatory limit and below the health-based limit for total concentrations of TCE."

Subsequently, WSMR has submitted two clean closure verification packages to HRMB:

[illegible] WSMR submitted "*U.S. Army White Sands Missile Range Hazardous Waste Storage Facility*

Approved Closure and Post-Closure Plan dated December 3, 1993, Section 2.0 Purpose and Objectives;

- provide laboratory analyses from two separate Contract Laboratory Program (CLP) laboratories as stated in WSMR's Approved Closure Plan dated December 3, 1993, Section 2.0 Purpose and Objectives, Item #3, and Section 5.0 Sampling Protocol;

- adhere to the sampling procedure and protocol as specified in WSMR's Approved Closure and Post-Closure Plan dated December 3, 1993, Section 2.0 Purpose and Objectives, and Section 5.0 Sampling Protocol (i.e., "For the upper 5 ft (60 in), soil samples will be taken every 12 in depth, for a total of 60 samples. At 10 ft, 15 ft, 20 ft, and 25 ft depths in the soil borings, additional soil samples will be taken at each boring, for an additional total of 48 samples (Figure 5)."

Therefore, having denied WSMR's July 2, 1997, clean closure verification report, NMED requires that:

either: WSMR resample for clean closure verification (for both TCLP and Totals);

or: WSMR will submit a Parts A and B Permit Application for the post-closure care of this hazardous waste unit.

Should WSMR decide to resample for clean closure verification, sampling procedure and protocol must be adhered to as specified in:

- WSMR's December 3, 1993, Approved Clean Closure Plan;
- NMED's September 8, 1994, Closure Plan Approval Letter;
- NMED's July 9, 1996, NOD; and
- those deficiencies noted within this letter.

NMED requests that WSMR respond by formal letter notifying NMED of the option that WSMR chooses to pursue. WSMR must notify NMED within fifteen (15) calendar days upon its receipt of this letter

Regardless of the option chosen, WSMR will also address the biological environment, including threatened and endangered species as well as sensitive species located at or near the

DEPARTMENT OF THE ARMY

U.S. ARMY WHITE SANDS MISSILE RANGE
WHITE SANDS MISSILE RANGE, NEW MEXICO 88002-

REPLY TO
ATTENTION OF

December 16, 1998

National Range Directorate of Environment and Safety

Mr. Benito Garcia
Hazardous and Radioactive Materials Bureau
New Mexico Environment Department
2044 Galisteo
P.O. Box 26110
Santa Fe, New Mexico 87502

SUBJECT: Submittal of Revision to the 3 December 1993 Sampling and Analysis Plan for the Clean Closure of the Hazardous Waste Storage Facility Evaporation Tank

Dear Mr. Garcia:

The White Sands Missile Range herein formally submits the Revision to the 3 December 1993 Sampling and Analysis Plan for the Clean Closure of the Hazardous Waste Storage Facility Evaporation Tank, dated December 1998. One copy of the Revision, as well as a CD-ROM electronic copy, will also be submitted to Mr. Phillip Solano of your staff.

Mr. Solano and Ms. Robin Smith of our staff have been in close communication regarding this issue. We trust you will find this Revision fulfills the closure requirements of your Bureau while illustrating our continuing commitment to work toward protection of human health and the natural environment.

If you have any questions, please do not hesitate to call or contact Ms. Robin Smith of our staff at (505) 678-8693.

Sincerely,

for Thomas A. Ladd
Director, National Range Directorate of
Environment and Safety

ENVIRONMENT DEPARTMENT
Hazardous Waste Bureau
2044 A Galisteo, P.O. Box 26110
Santa Fe, New Mexico 87502-6110
Telephone (505) 827-1567
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GARY E. JOHNSON
GOVERNOR

JAMES M. MADDOX
SECRETARY

PAUL R. RITZMA
DEUPTY SECRETARY

CERTIFIED MAIL 7099 3220 0009 7939 6568
RETURN RECEIPT REQUESTED

December 6, 2000

Thomas A. Ladd, Director
Environmental and Safety
Department of the Army
U.S. Army White Sands Missile Range
White Sands Missile Range, N.M. 88002

RE: NOTICE OF ADMINISTRATIVE COMPLETENESS MODIFICATION TO THE APPROVED CLOSURE PLAN FOR THE HAZARDOUS WASTE STORAGE FACILITY, EVAPORATION TANK (SWMU 90 / DSERTS 35) EPA ID# NM2750211235

Dear Mr. Ladd:

The Hazardous Waste Bureau (HWB) of the New Mexico Environment Department has reviewed the September 1999, *Modification to the Approved Closure Plan for the Hazardous Waste Storage Facility, Evaporation Tank.* HWB has determined that the document is administratively complete.

The New Mexico Hazardous Waste Management Fee Regulations (20.4.2.201.5.1 NMAC) require assessment of fees when administrative review of a document is complete. HWB will issue an invoice to you under a separate letter. Payment is due within sixty (60) calendar days from the date that you receive the invoice.

Should you need to request an extension of the sixty-day period, the request must be received by the New Mexico Environment Department a minimum of fourteen (14) calendar days prior to the end of the sixty-day period. Should you disagree with the fee assessed you may file an Administrative Appeal under the provisions of 20.4.2.302.1 NMAC.

Upon receipt of the fees, NMED will begin review of the document for technical adequacy and completeness.

RCVD
12/14/00

ENVIRONMENT DEPARTMENT
Hazardous Waste Bureau
2044 A Galisteo, P.O. Box 26110
Santa Fe, New Mexico 87502-6110
Telephone (505) 827-1557
Fax (505) 827-1544

PAUL R. RITZMA
DEPUTY SECRETARY

CERTIFIED MAIL 7099 3220 0009 7939 6803
RETURN RECEIPT REQUESTED

April 10, 2001

Thomas A. Ladd, Director
Environmental and Safety
Department of the Army
U.S. Army White Sands Missile Range
White Sands Missile Range, NM 88002

RE: **REQUEST FOR SUPPLEMENTAL INFORMATION**
MODIFICATION TO THE APPROVED CLEAN CLOSURE PLAN FOR THE HAZARDOUS WASTE STORAGE FACILITY EVAPORATION TANK
SWMU 90 / DSERTS 35
WHITE SANDS MISSILE RANGE
EPA ID No. NM2750211235

Dear Mr. Ladd:

On December 6, 2000 the Hazardous Waste Bureau (HWB) of the New Mexico Environment Department (NMED) determined that the White Sands Missile Range (WSMR) Modification to the Approved Clean Closure Plan for the Hazardous Waste Storage Facility Evaporation Tank submitted in September of 1999 was administratively complete. On January 31, 2001 HWB submitted a letter confirming the receipt of the fees for technical review.

In accordance with 20.4.2.201.3 and 20.1.4 NMAC, HWB has completed its first technical review of WSMR's Modification to the Approved Clean Closure Plan for the Hazardous Waste Storage Facility Evaporation Tank and has determined that it is not technically adequate and that changes are necessary before it can be approved. Therefore, HWB is issuing WSMR with this ***Request for Supplemental Information*** (RSI).

HWB's comments are included as Attachment 1 and constitute our first technical review of WSMR's Modification to the Approved Closure Plan. Please submit a revised Closure Plan within sixty (60) days of your receipt of this RSI. In addition, please include a response letter that indicates exactly where revisions have been made, cross-referencing HWB's comments.

DEPARTMENT OF THE ARMY
U.S. ARMY WHITE SANDS MISSILE RANGE
100 HEADQUARTERS AVENUE
WHITE SANDS MISSILE RANGE, NEW MEXICO 88002-5000

January 9, 2002

REPLY TO
ATTENTION OF:
Environment and Safety Directorate

Ms Cheryl Frischkorn
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

Subject: Request for 45 Day Extension on Final Report for SWMU 90

Dear Ms. Frischkorn:

White Sands Missile Range requests a 45-day extension from the New Mexico Environment Department - Hazardous Waste Bureau (NMED-HWB) for the completion of closure activities at the Hazardous Waste Storage Facility Evaporation Tank (Solid Waste Management Unit 90). The NMED-HWB approved the *Modification to the Approved Clean Closure Plan for the Hazardous Waste Storage Facility Evaporation Tank (SWMU 90 / DSERTS 35), Revision 1* on July 23, 2001 and requested that all activities be complete within 180 days of approval of said plan, which is January 19, 2002.

The reason for the subject request for extension is due to an extended delay in procurement of a mobile laboratory for the proposed soil gas survey, as required by Phase 1a of the approved clean closure plan (reference Section 6.1). Five mobile laboratories were contacted to perform the work. Four of the mobile laboratories were not interested in performing the work due to the small size of the job and the sole responding mobile laboratory was not available until December 12, 2001.

Field sampling activities (soil gas survey, subsurface soil sampling, and groundwater sampling) were subsequently completed during December 12-19, 2002. Final analytical results are expected from the laboratories by mid-January 2002. A 45-day extension to March 5, 2002 would allow for adequate review of analytical results and sufficient time to prepare a closure report for immediate submittal for your review. Should you have any questions regarding this proposal, please contact Mr. Gene Forsythe, at (505) 678-2224.

Copies of this correspondence are being furnished to Messrs. James Bearzi and John Kieling, NMED HWB; Mr. James Harris, Region VI EPA; Ms. Nancy Kosko, Developmental Test Command; and to the MEVATEC Corporation.

Sincerely,

Thomas A. Ladd

Thomas A. Ladd
Director, Environment and
Safety Directorate

GARY E. JOHNSON
GOVERNOR

Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Telephone (505) 428-2500
Fax (505) 428-2567
www.nmenv.state.nm.us

PETER MAGGIORE
SECRETARY

PAUL R. RITZMA
DEPUTY SECRETARY

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

July 23, 2001

Thomas A. Ladd, Director
Environmental and Safety
Department of the Army
U.S. Army White Sands Missile Range
White Sands Missile Range, New Mexico 88002

RE: APPROVAL OF MODIFICATION TO THE APPROVED CLEAN CLOSURE PLAN FOR THE HAZARDOUS WASTE STORAGE FACILITY EVAPORATION TANK (SWMU 90 / DSERTS 35)
EPA ID NO. NM2750211235
HWB-WSMR-99-010

Dear Mr. Ladd:

The New Mexico Environment Department (NMED) has reviewed the revisions to the Modification to the Approved Clean Closure Plan for the Hazardous Waste Storage Facility (HWSF) Evaporation Tank, dated June 2001.

All the revisions required by NMED's April 10, 2001 Request for Supplemental Information (RSI) were made; therefore, the Modification to the Approved Clean Closure Plan for the HWSF Evaporation Tank is hereby approved. Please begin implementation of the clean closure plan within fifteen (15) days of receipt of this letter. Once closure is initiated, closure activities must be completed within one hundred and eighty (180) days of approval of the closure plan. White Sands Missile Range (WSMR) will have sixty (60) days after completion of closure activities specified in the closure plan to submit a report summarizing the findings of closure activities. The report must specify if WSMR will pursue certification of clean closure, clean closure through remedial action, or if post-closure will be required.

If you have any questions concerning this letter, please call Cheryl Frischkorn at (505) 428-2550.

Sincerely,

James P. Bearzi
Chief
Hazardous Waste Bureau

JPB:caf

cc: Julie Jacobs, NMED GWQB
Pam Allen, NMED HWB
Cheryl Frischkorn, NMED HWB
David Neleigh, EPA Region 6 (6PD-N)

file: Reading and WSMR Red File 2001
HWB-WSMR-99-010

State of New Mexico
ENVIRONMENT DEPARTMENT
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
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GARY E. JOHNSON
GOVERNOR

PETER MAGGIORE
SECRETARY

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

January 22, 2002

Thomas A. Ladd, Director
Environment and Safety Directorate
U.S. Army White Sands Missile Range
White Sands Missile Range, New Mexico 88002-5000

SUBJECT: HAZARDOUS WASTE STORAGE FACILITY EVAPORATION TANK
SOLID WASTE MANAGEMENT UNIT (SWMU) 90
EPA ID NO. NM2750211235
HWB-WSMR-99-010

Dear Mr. Ladd:

The New Mexico Environment Department (NMED) has received your letter dated January 9, 2002 requesting a time extension to complete closure activities at the Hazardous Waste Storage Facility Evaporation Tank (SWMU 90).

NMED hereby approves your extension request. White Sands Missile Range (WSMR) must submit a RCRA Facility Investigation (RFI) Report for the Hazardous Waste Storage Facility Evaporation Tank no later than March 5, 2002. However, WSMR must take all necessary steps to ensure that contract-related issues do not delay investigation-related activities in the future.

Rec'd
1-24-2002

If you have any questions regarding this letter, please call me at (505) 428-2550.

Sincerely,

Cheryl Frischkorn

Permits Management Program

CAF:caf

cc: James Bearzi, NMED HWB
Glenn von Gonten, NMED HWB
David Cobrain, NMED HWB
Julie Jacobs, NMED HWB
Gene Forsythe, WSMR
David Neleigh, EPA Region 6
Reading File and WSMR 2002 Red File

DEPARTMENT OF THE ARMY
U.S. ARMY WHITE SANDS MISSILE RANGE
100 HEADQUARTERS AVENUE
WHITE SANDS MISSILE RANGE, NEW MEXICO 88002-5000

February 8, 2002

REPLY TO
ATTENTION OF:
Environment and Safety Directorate

Ms Cheryl Frischkorn
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

Subject: Request for Extension on Final Report for SWMU 90

Dear Ms. Frischkorn:

White Sands Missile Range has received your approval of our requests for 45-day extension from the New Mexico Environment Department - Hazardous Waste Bureau (NMED-HWB) for the completion of closure activities at the Hazardous Waste Storage Facility Evaporation Tank (Solid Waste Management Unit 90).

We appreciate your understanding of our need for the time extension and will submit the closure report to your office by March 5, 2002.

Should you have any questions regarding this proposal, please contact Mr. Gene Forsythe, at (505) 678-2224.

Copies of this correspondence are being furnished to Messrs. James Bearzi and John Kieling, NMED HWB; Mr. James Harris, Region VI EPA; Ms. Nancy Kosko, Developmental Test Command; and to the MEVATEC Corporation.

Sincerely,

Thomas A. Ladd

Thomas A. Ladd
Director, Environment and
Safety Directorate

State of New Mexico
ENVIRONMENT DEPARTMENT
Harold Runnels Building
1190 St. Francis Drive, P.O. Box 26110
Santa Fe, New Mexico 87502
(505) 827-2850

BRUCE KING
GOVERNOR

JUDITH M. ESPINOSA
SECRETARY

RON CURRY
DEPUTY SECRETARY

Certified Mail
Return Receipt Requested

August 31, 1993

Dennis E. O'Brien
Colonel, U.S. Army
Deputy Commander
U.S. Army White Sands Missile Range
White Sands Missile Range, New Mexico 88002-5000

RE: NMED Denial of Clean Closure for Evaporation Tank at Building 22895 (NM2750211235)

Dear Colonel O'Brien:

The New Mexico Environment Department (NMED) hereby denies clean closure for the Evaporation Tank at Building 22895 located at White Sands Missile Range (WSMR). NMED's evaluation of the final Closure Report, dated April 15, 1993, and the information that WSMR submitted by letter dated July 15, 1993, indicates that the closure was completed in substantial conformance with the NMED approved closure plan, dated May 21, 1992. However, the data collected does not demonstrate that all hazardous wastes and hazardous waste residues have been removed or decontaminated at the unit. Specifically, trichloroethylene remains in subsoils beneath the unit above the Toxicity Characteristic Leaching Procedure (TCLP) regulatory concentrations.

In a meeting between the Hazardous and Radioactive Materials (HRMB) and WSMR staffs in Santa Fe on August 5, 1993, WSMR requested NMED's determination on whether or not the concrete slab at the unit should be sampled and analyzed as a soil sample. NMED does require that such materials be subject to the same sampling and analytical procedures as soil. However, since the concrete matrix is not as easily ingested as soil would be, NMED can consider health based concentrations for concrete on a case-by-case basis. NMED accepts the analytical data for the intact concrete presented in the Closure Report as meeting health based concentrations for clean closure of this material. If the concrete slab degrades in the future then NMED may reconsider this determination.

A post closure plan must be submitted to the HRMB within ninety (90) days of your receipt of this letter. The post-closure plan must address all requirements of the New Mexico Hazardous Waste Management Regulations (HWMR-7), Part VI, Section 265.117 through 265.120. This plan must include, but is not limited to, requirements for closing the unit as a landfill, ensuring that the cover system meets the regulatory performance standards,

APPENDIX B

Final Closure Report, Evaporation Tank at Building 22895, EPA ID# 2750211235
dated 15 April 1993

Any questions concerning this report should be addressed to Mr. Harrison R. Orr, Environment and Safety Directorate, at 505-678-5361.

Thomas A. Ladd

Thomas A. Ladd
Director, Environment and Safety

Enclosure

10. CERTIFICATION OF CLOSURE

CERTIFICATION OF CLOSURE

This is to certify that on April 15, 1993 under my direction, the Chemical Evaporation Tank (Evaporation Tank), located in the Hazardous Waste Storage Facility (HWSF) approximately 8 miles east of the White Sands Missile Range (WSMR) Main Post was closed in accordance with (1) Evaporation Tank Closure Plan as prepared by WSMR Environmental Office (ES-E); as revised on May 21, 1992; as approved by the New Mexico Environment Department-Hazardous Waste Bureau June 1, 1992; and (2) specific direction given by WSMR-ES-E.

The details of the closure activities are contained within this report.

OWNER OPERATOR
White Sands Missile Range

Apr. 16, 1993
Date

Gilbert A. Baca, P.E.
NM Reg. No. 5641

4/15/93
Date

Final

CLOSURE REPORT
EVAPORATION TANK AT BUILDING 22895

White Sands Missile Range Environmental Services Division

PREPARED UNDER

White Sands Missile Range Contract
DAAD07-90-C-0018
Work Assignment Order 400-09

FOR

White Sands Missile Range
Environmental Office
STEWS-ES-E

BY

Advanced Sciences Inc.
555 S. Telshor, Suite 310
Las Cruces, NM 88001

April 15, 1993

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1. INTRODUCTION

On 6 May 1992, the U.S. Army executed Work Assignment Order (WAO) number 400-09 under contract DAAD07-90-C-0018 with Advanced Sciences, Incorporated (ASI) for the closure of the Chemical Waste Evaporation Tank (Evaporation Tank) located at the Hazardous Waste Storage Facility (HWSF), White Sands Missile Range (WSMR). This report is submitted as the final report required under the above referenced WAO. This report describes the activities performed and includes the operational history of the Evaporation Tank, detailed descriptions of sampling plans and procedures, analytical results, environmental considerations, and a certification by a Registered Professional Engineer that the closure was accomplished in accordance with the Closure Plan as approved by the New Mexico Environment Department (NMED) dated 21 May, 1992.

1.1 SCOPE

The "Clean Closure Plan for the Evaporation Tank at Building 22895, EPA ID # 2750211235" was submitted by the WSMR Environmental Office (STEWS-ES-E) to the New Mexico Environment Department (NMED) in accordance with requirements set forth in New Mexico Hazardous Waste Management Regulations (HWMR-5, amended 1989). The Hazardous and Radioactive Materials Bureau (HRMB) of the NMED completed a review of the closure plan on 13 January 1992 and presented a detailed description of comments to WSMR. The closure plan was re-submitted to NMED by WSMR with the comments incorporated. The public comment period for the interim status Closure Plan ended on 13 May 1992. No comments were received. Subsequently, the NMED approved the Closure Plan, effective 1 June 1992. This approved Closure Plan was the basis for initiation of closure activities. Clean closure was to be demonstrated by the chemical analysis of discreet and composite samples to be collected from the Evaporation Tank concrete matrix and subsurface soils.

The specific tasks assigned under this WAO required the removal of all material remaining in the Evaporation Tank; decontamination of the Evaporation Tank; characterization of the decontamination rinseate; characterization of the Evaporation Tank concrete matrix; and characterization of the underlying soils, as detailed in the Closure Plan.

1.2 SITE LOCATION

The Main Post area of WSMR is approximately 27 miles east-northeast of Las Cruces, New Mexico, and 45 miles north of El Paso, Texas. Access to WSMR is restricted and controlled by the U.S. Army 24 hours per day. The HWSF is located approximately 8 miles east of WSMR headquarters. The HWSF location, Figure 1, is north latitude 32 degrees, 23 minutes, and west longitude 106 degrees, 19 minutes. The location of the Evaporation Tank within the HWSF is shown in Figure 2, Hazardous Waste Storage Facility Site Plan. A plan and cross-section views of the Evaporation Tank are detailed in Figure 3.

The Evaporation Tank is located within the fenced area of the HWSF. Access to the HWSF can only be gained through two locked gates in the north and west fences. To discourage unauthorized access, warning signs are posted at the intersection of the HWSF access road an Nike Avenue (Range Road 2), at the HWSF, at periodic intervals along the fence, and on the gates.

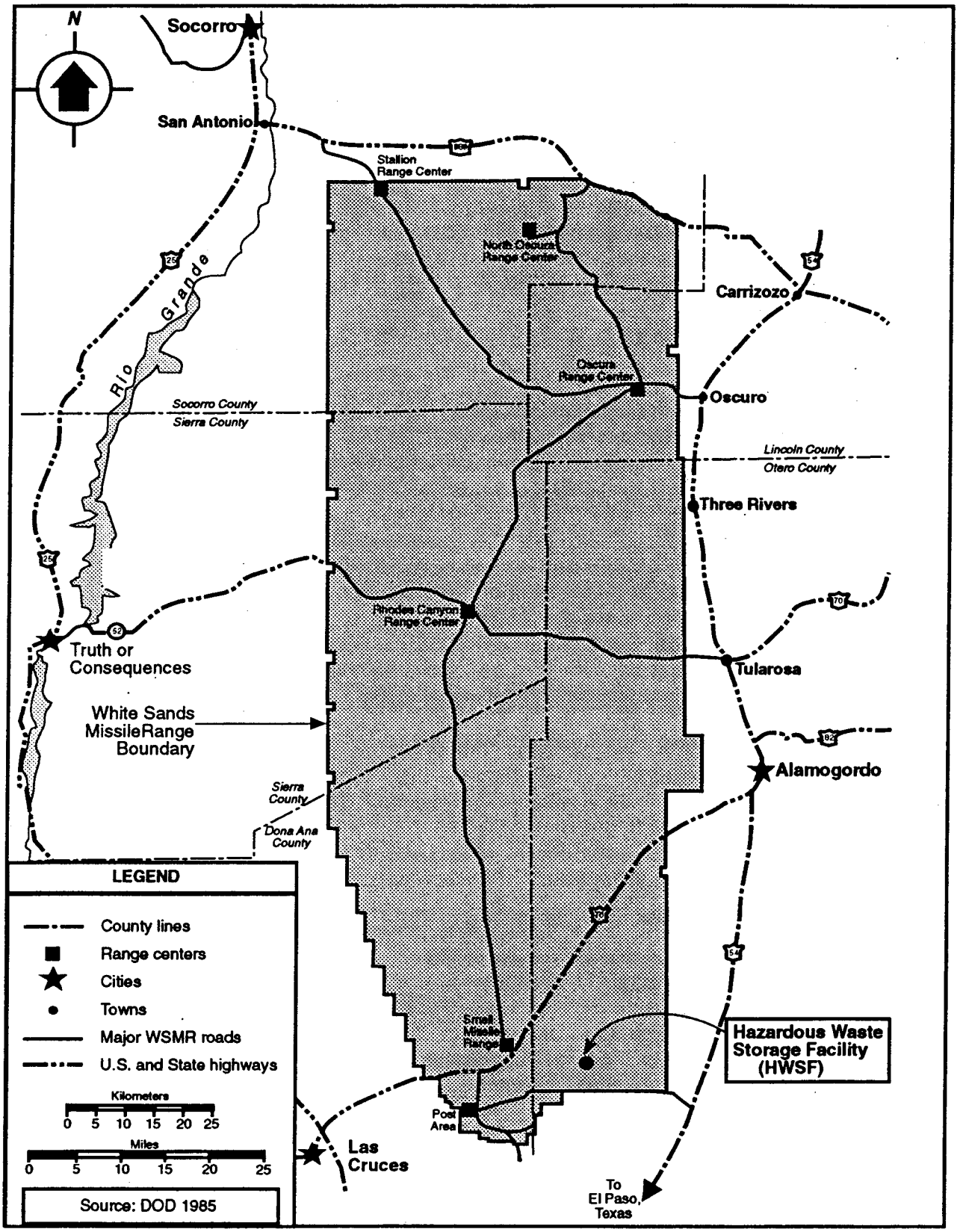

Figure 1. Hazardous Waste Storage Facility (HWSF)

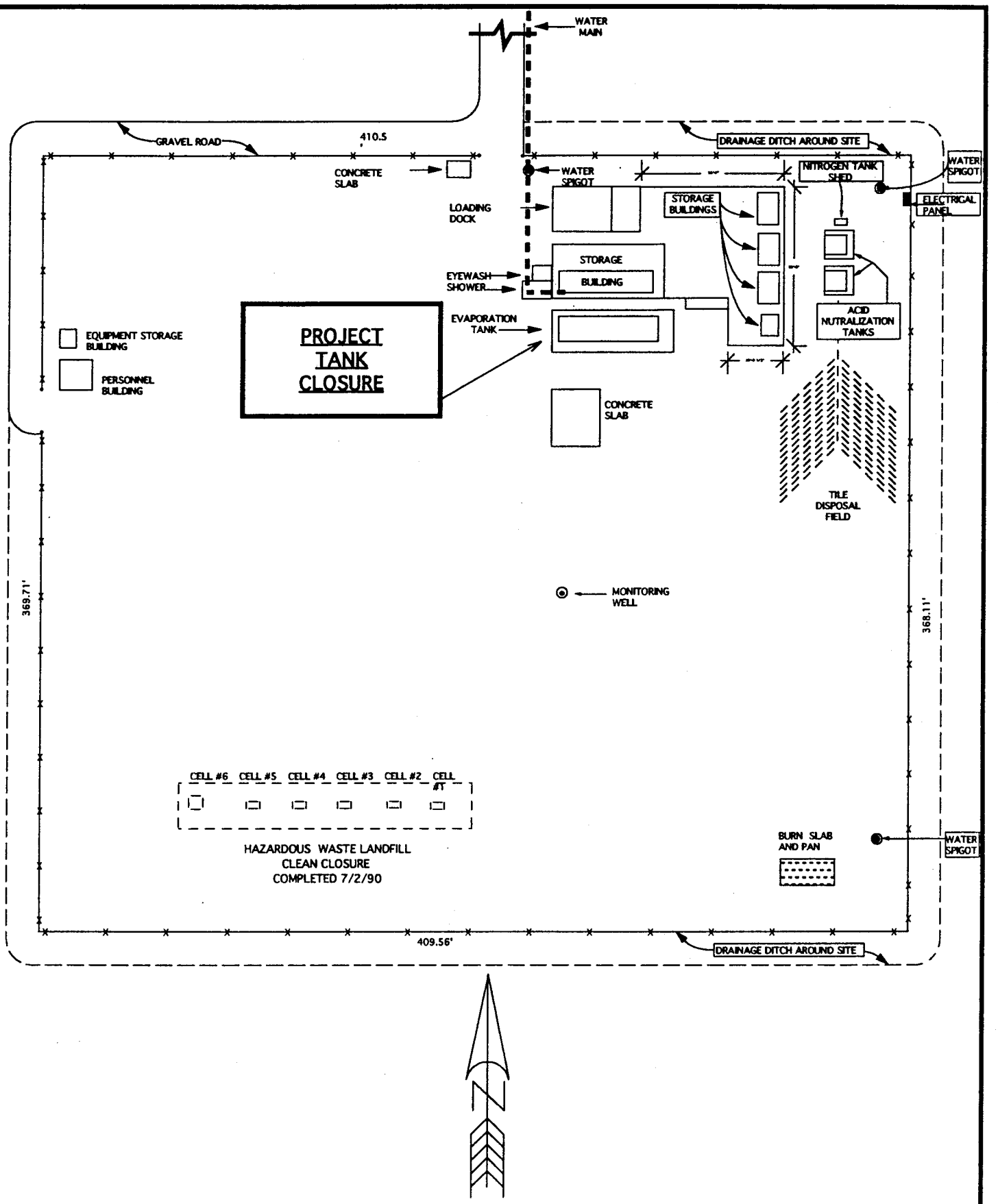

FIGURE 2. HAZARDOUS WASTE STORAGE FACILITY SITE PLAN

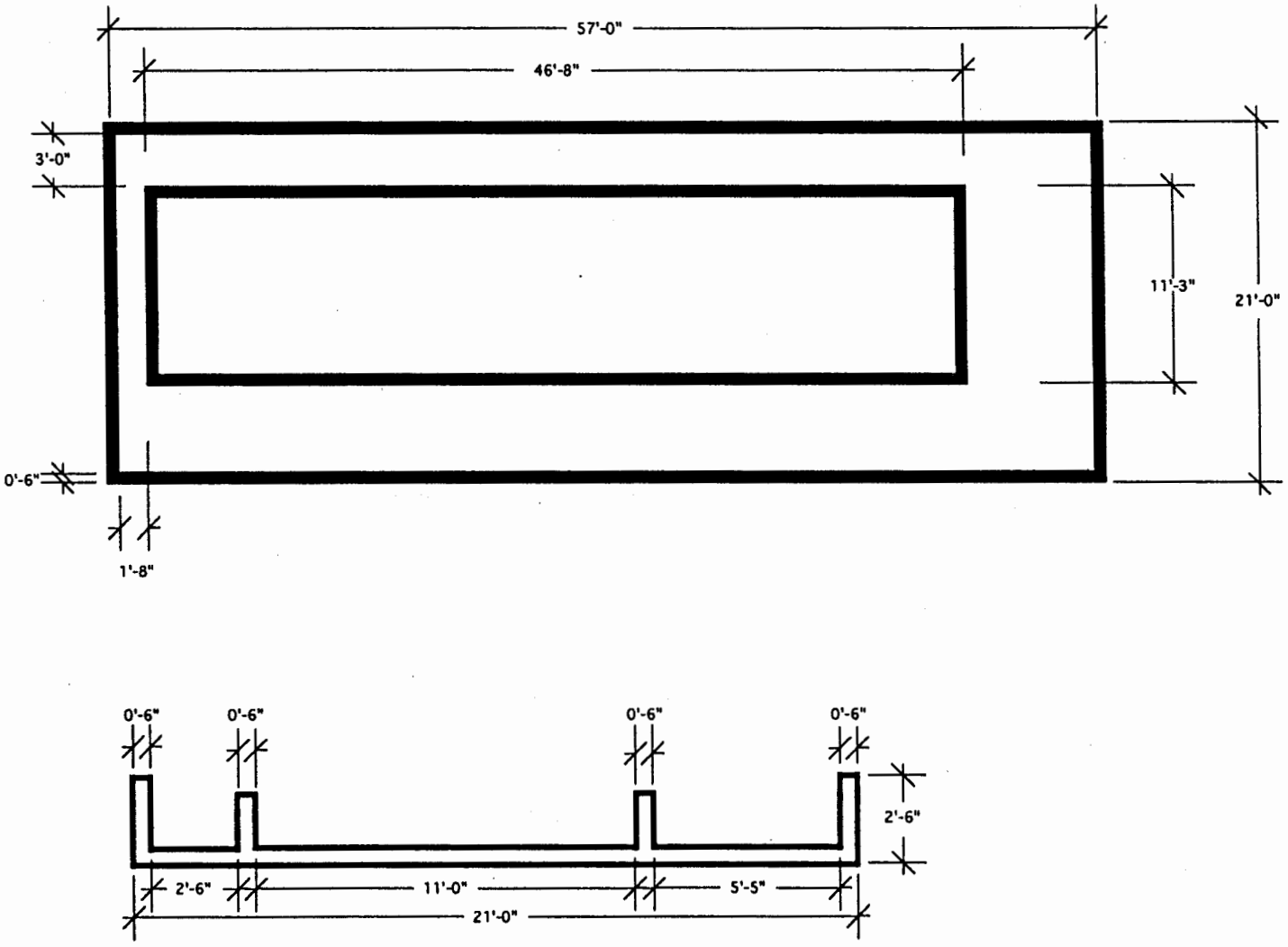

FIGURE 3. EVAPORATIIVE TANK: PLAN VIEW, SECTION VIEW, AND DIMENSIONS

SCALE 1"

1.3 TANK DESCRIPTION

The Evaporation Tank is a shallow, open-top, concrete tank with an inner and outer containment system. The Evaporation Tank is photographically presented in Figure 4. The outer walls and slab served as secondary containment for the inner tank. The walls were six inches thick. The outer tank is 57.0 feet long, 21.0 feet wide, and 2.0 feet deep. The inner tank is 46.7 feet long, 11.3 feet wide, and 1.5 feet deep.

The inner tank was used as an evaporation basin for waste photographic solution. The inner tank was lined with a corrosion-resistant epoxy coating which exhibited severe degradation and scaling at the initiation of closure activities. When the Evaporation Tank was in use, a wire-mesh screen cover was placed over it to keep out birds and animals. In 1985 the U.S. Army Corps of Engineers installed polyvinyl chloride (PVC) pipes to allow access for soil sampling beneath the Evaporation Tank. These capped PVC tubes were installed at 45-degree angles along the south side of the Evaporation Tank. Soil samples taken from the borings during the installation of the PVC tubes were analyzed for volatile organics and metals by EP toxicity procedures. Methylene chloride was detected in four of 28 soil samples at concentrations of 13-15 parts per billion (ppb). These results are suspect because the concentrations occurred sporadically, are between 3-5 ppb above the laboratory detection limit, and methylene chloride is not known to have been associated with the Evaporation Tank. The source of the methylene chloride contamination is most probably associated with the PVC and solvent weld glue used to assemble the PVC tubes.

1.4 OPERATIONAL HISTORY OF THE TANK

The start-up date of the Evaporation Tank cannot be confirmed from the records available. However, WSMR facility personnel estimated the age of the Evaporation Tank at 15 years; the Evaporation Tank has not been used since approximately 1981. When not used for evaporation, the Evaporation Tank has been used as a storage pad for transformers and capacitors containing polychlorinated biphenyls (PCBs).

1.4.1 Tank Operations

When used as an evaporation tank, the Evaporation Tank received waste approximately twice a year. The types of waste managed were spent photographic solutions. These wastes were generated predominantly at the WSMR photography laboratory, and included aqueous solutions of potassium ferricyanide, potassium ferrocyanide, bleach solutions, developing baths and fixers, and waste from cyanide recycling equipment. The solid wastes remained in the Evaporation Tank as the liquid fraction evaporated. The remaining solids were then removed, placed in drums, and transported to the Hazardous Waste Landfill (HWLF) at HWSF.

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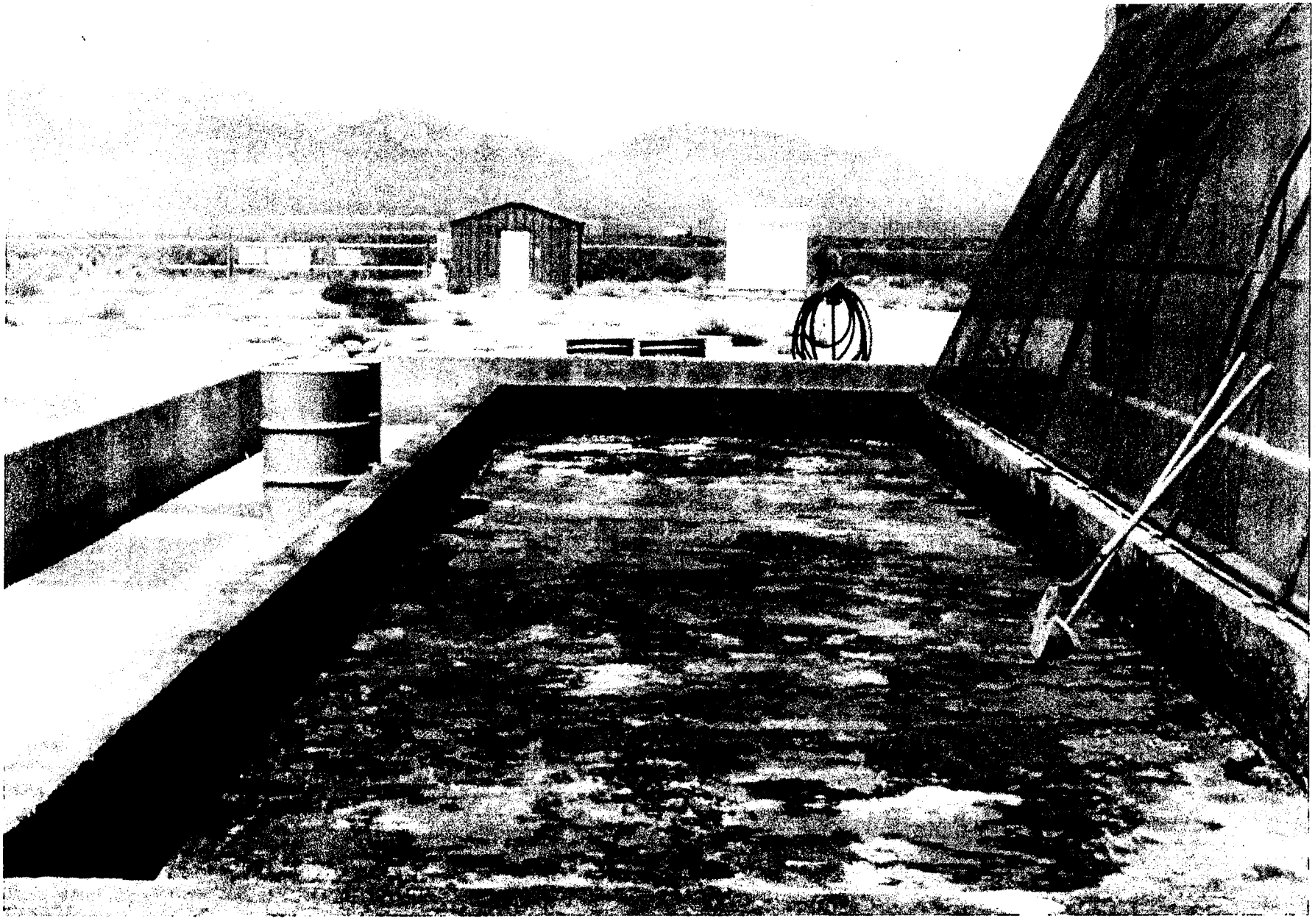


Figure 4 Evaporative Tank

1.4.2 Estimated Quantity of Wastes

The quantities of waste introduced into the Evaporation Tank and the solids transported to the HWLF cannot be determined from the available records. The maximum waste inventory introduced to the Evaporation Tank and the solids taken to the HWLF can be estimated as follows:

- Waste type: spent photographic solutions consisting of 90% water and 10% total dissolved solids (TDS);
- The liquid fraction is evaporated and the TDS fraction is left as solid residue;
- The Evaporation Tank was filled twice per year to a depth of 1.0 foot;
- The Evaporation Tank was in service for a total of 15 years;
- The inside dimensions of the inner portion of the Evaporation Tank are 46.7 feet long, 11.3 feet wide, and 1.5 foot high.

The operation of the Evaporation Tank could have potentially yielded the following volume of solid wastes:

- Liquid waste volume = (46.7 ft) x (11.3 ft) x (1.0 ft) = 528 ft^3
- Estimated maximum volume of liquid waste
  (528 ft^3) x (2 fillings/yr) x (15 years of operation) = 15,840 ft^3 (evaporated)
- Estimated maximum volume of generated solid wastes = (15,840 ft^3) x (0.1) = 1,584 ft^3 .

1.5 ACTIONS TAKEN

To initiate the closure activities, ASI performed an on-site reconnaissance of the Evaporation Tank on 4 June 1992. This inspection revealed that the Evaporation Tank was being used as a storage area for out-of-service electrical transformers. A letter noting the presence of transformers was sent to WSMR on 5 June 1992 requesting the removal of these transformers prior to initiation of field activities. The transformers were removed on 9 June 1992.

1.5.1 Tank Contents Sampling

On 22 June 1992, ASI removed and sampled the loose residual material (Sample #ET-1) and free water (Sample #ET-2) in the inner tank. The majority of the loose material was native blown "sand" and dried vegetation. The loose concrete and deteriorated epoxy coating were removed from the surfaces of the inner tank by brushing and scraping with a shovel. In addition, a background soil sample (Sample #ET-3) was collected for comparison.

Evaporation Tank decontamination by high pressure steam cleaning of the inner tank walls and floor was completed on 30 June 1992. The decontamination water was collected by vacuuming and bailing operations, placed in bung type drums (DOT 17E) and appropriately labeled. All equipment used during Evaporation Tank decontamination was washed and the wash water stored in open head drums pending laboratory analysis. Disposal of the drums is described in

Section 5 of this report. Samples were collected from the final Evaporation Tank rinseate (Sample #'s Tank Rinseate #1-4) for analysis to determine the contamination level. In addition, background samples were collected from the potable water supply (Sample #'s Potable H_2O #1-5 and #11) used during decontamination efforts.

1.5.2 Tank Matrix Sampling

Samples of the concrete tank bottom matrix (Sample #'s #1 Concrete - #3 Concrete) were collected on 10 July 1992 in accordance with the Closure Plan. In order to evaluate the distribution of contaminants, nine randomly selected sampling locations on the upper surface of the concrete inner-tank floor were determined. These sampling locations were determined by dividing the Evaporation Tank lengthwise into three equal sectors, gridding each of the three sectors at 1-foot intervals and using a random number generator to select three sampling locations from each sector for a total of nine possible sample locations. One sample location from each of the three sectors was randomly chosen for actual sampling. At each sample location, numerous bore holes ranging in diameter from 1" to 1 1/2" were drilled into the concrete Evaporation Tank bottom to depths of 4" to 6". The powder cuttings from the holes was gathered and containerized. Approximately 500 grams of the powdered concrete were collected from each of the three sample location. The concrete samples were handled as a soil sample. The sample point locations and test hole layout are presented in Figure 5. The methodology for determining these sample locations is presented in the Closure Plan.

On 6 August 1992, at the request of WSMR, ASI collected two additional concrete tank matrix samples. One sample was taken from the northeast outer tank wall (Sample # Outside Tank N). The second sample was taken from the southeast outer tank wall (Sample # Outside Tank S). The exact locations of these sampling points are shown in Figure 6. These samples were composites of powder cuttings from the holes drilled (see Figure 6).

The results of the analyses on the concrete tank matrix indicated numerous exceedances above the Method Detection Limits (MDL). Based on these laboratory analyses, ASI requested that WSMR provide interpretation and guidance on the hazard classification of the tank. WSMR instructed ASI to have all of the concrete tank matrix samples tested using Toxicity Characteristic Leaching Procedures (TCLP) for additional comparison. Based on the results of all these tests, WSMR instructed ASI to consider the Evaporation Tank as non-hazardous.

1.5.3 Soil Sampling

The soils underlying the Evaporation Tank were sampled on 9 October 1992 at three previously selected sampling locations (Locations 1, 2 and 3, Figure 5) in accordance with the Closure Plan. The three locations used for the tank matrix sampling were used to provide access to underlying soil. The holes drilled for the concrete tank matrix sampling were expanded to a diameter of 6" and advanced through the Evaporation Tank bottom using a pneumatic jack hammer. ASI hand augured boreholes through the PVC casings into the underlying soil. Samples were collected from the intervals 0-6 inches and 30-36 inches below the bottom of the Evaporation Tank. Sample I.D. and source are shown in Table 1.

TABLE 1 - SOIL SAMPLING IDENTIFICATION	
Sample ID	Sample Location
ASI - Evaporation Tank	#1 0" - 6"
ASI - Evaporation Tank	#1 30" - 36"
ASI - Evaporation Tank	#2 0" - 6"
ASI - Evaporation Tank	#2 30" - 36"
ASI - Evaporation Tank	#3 0" - 6"
ASI - Evaporation Tank	#3 30" - 36"

These samples were subjected to TCLP chemical analysis at the direction of WSMR. To facilitate the additional soil sampling, ASI recommended that WSMR request from NMED a change in the Closure Plan to allow removal of the Evaporation Tank walls. This request was based on the previously established non-hazardous classification of the concrete tank matrix.

On 19 November 1992, ASI received formal notification from WSMR ES-E that the NMED had approved the modification to the Closure Plan to allow for removal of the Evaporation Tank walls prior to further sampling events. WSMR ES-E also notified ASI that NMED granted a 90 day extension to the schedule for completion of the closure activities.

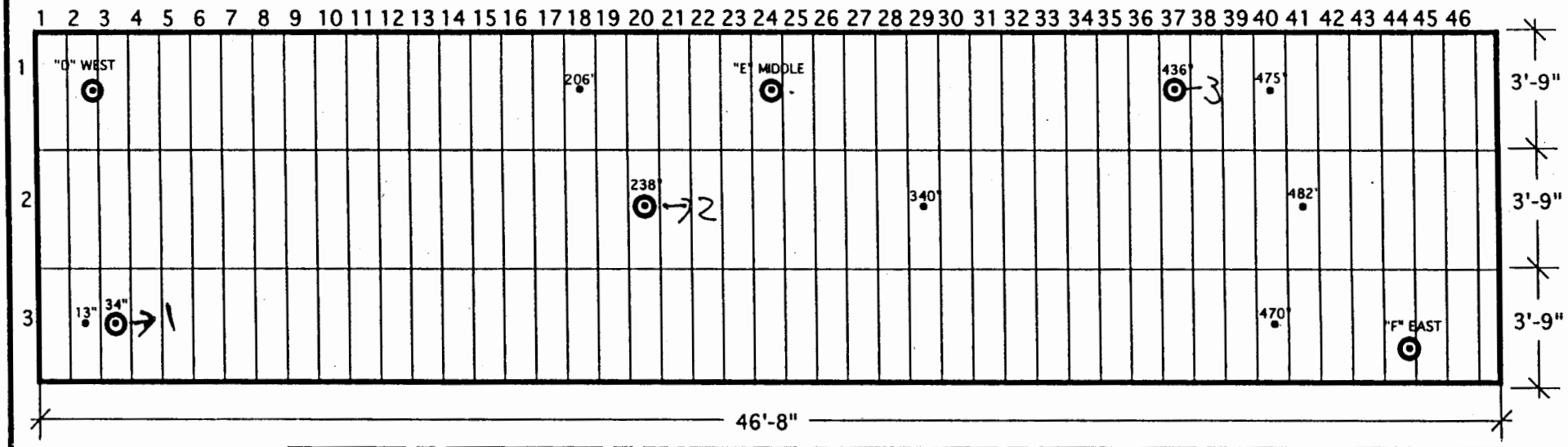
On December 10, 1992, WSMR informed NMED that the Evaporation Tank and underlying soils have been determined to be non-hazardous, based on the additional analyses indicating no exceedances above the NMED approved Health Based concentration limit for all hazardous waste. On 22 December 1992, NMED provided a response indicating that a Closure Report is due on 18 February 1993 if closure activities were complete.

On January 21, 1993, NMED responded in writing to oral communications from WSMR. This letter instructed WSMR if closure activities were not complete to respond within five days, and stated that the final closure report would be due on 15 April 1993. WSMR notified NMED that closure activities were not complete. The NMED response further indicated that a final determination of the closure status would be made upon review of the Final Closure Report.

On 25 January 1993, ASI recommended three options to WSMR for final action to be conducted for the Closure Plan for completion of field activities associated with the closure. On 29 January 1993, WSMR instructed ASI to cut the Evaporation Tank side walls off and leave the floor slab intact as the selection option. This action was implemented to ensure that the Evaporation Tank could not be used as containment for future waste storage. The Evaporation Tank walls were deemed non-hazardous and were sent to the WSMR sanitary landfill. The slab was to remain intact to ensure that any remaining contaminants in the subsurface soils would not be vertically mobilized to affect human health, groundwater, or the terrestrial environment.

On February 10, 1993 three additional sampling locations were cored through the concrete floor slab. A 4-inch diameter Schedule 40 PVC pipe was grouted into the three original access holes to minimize the potential for contamination by outside sources and prevent the introduction of water into the subsurface. A 3-inch diameter schedule 40 PVC pipe was grouted into the final three access holes and sealed. Figure 5 shows these locations.

EVAPORATIVE TANK
SAMPLING LOCATIONS



• Random test sites

⊙ Selected test sites

SCALE @ 1" = 5'

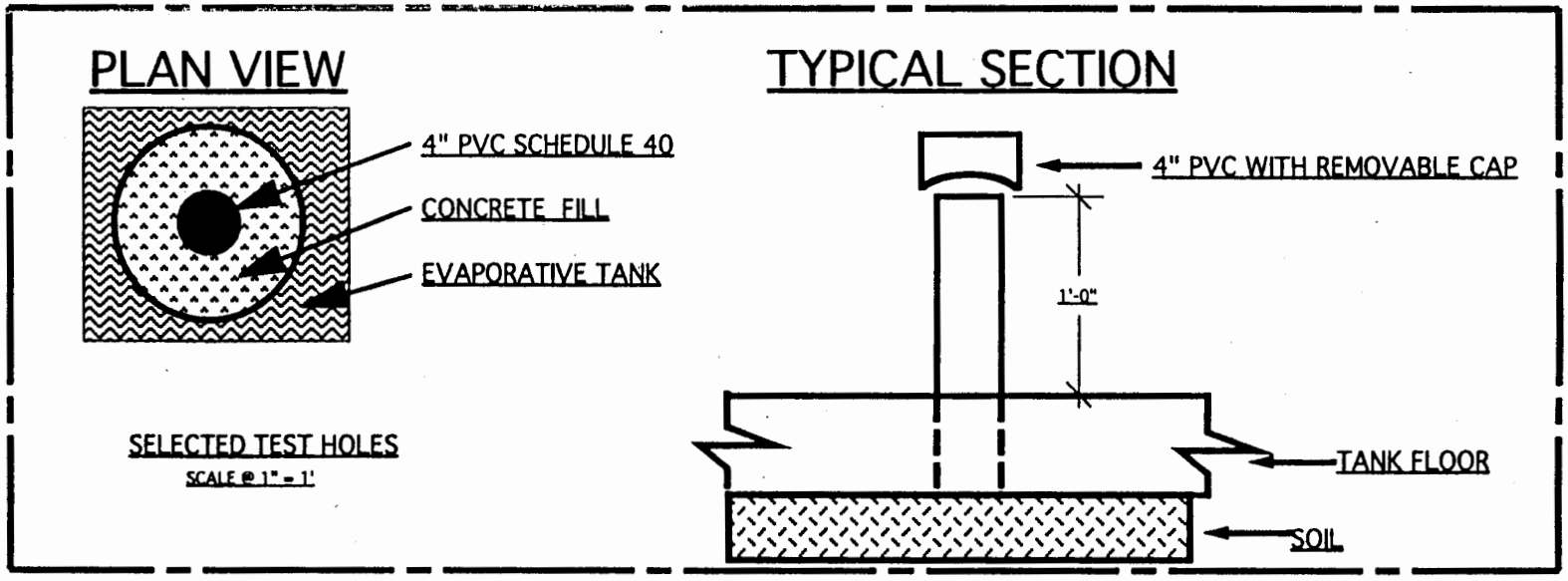


FIGURE 5. RANDOM EVAPORATIVE TANK SAMPLING LOCATIONS

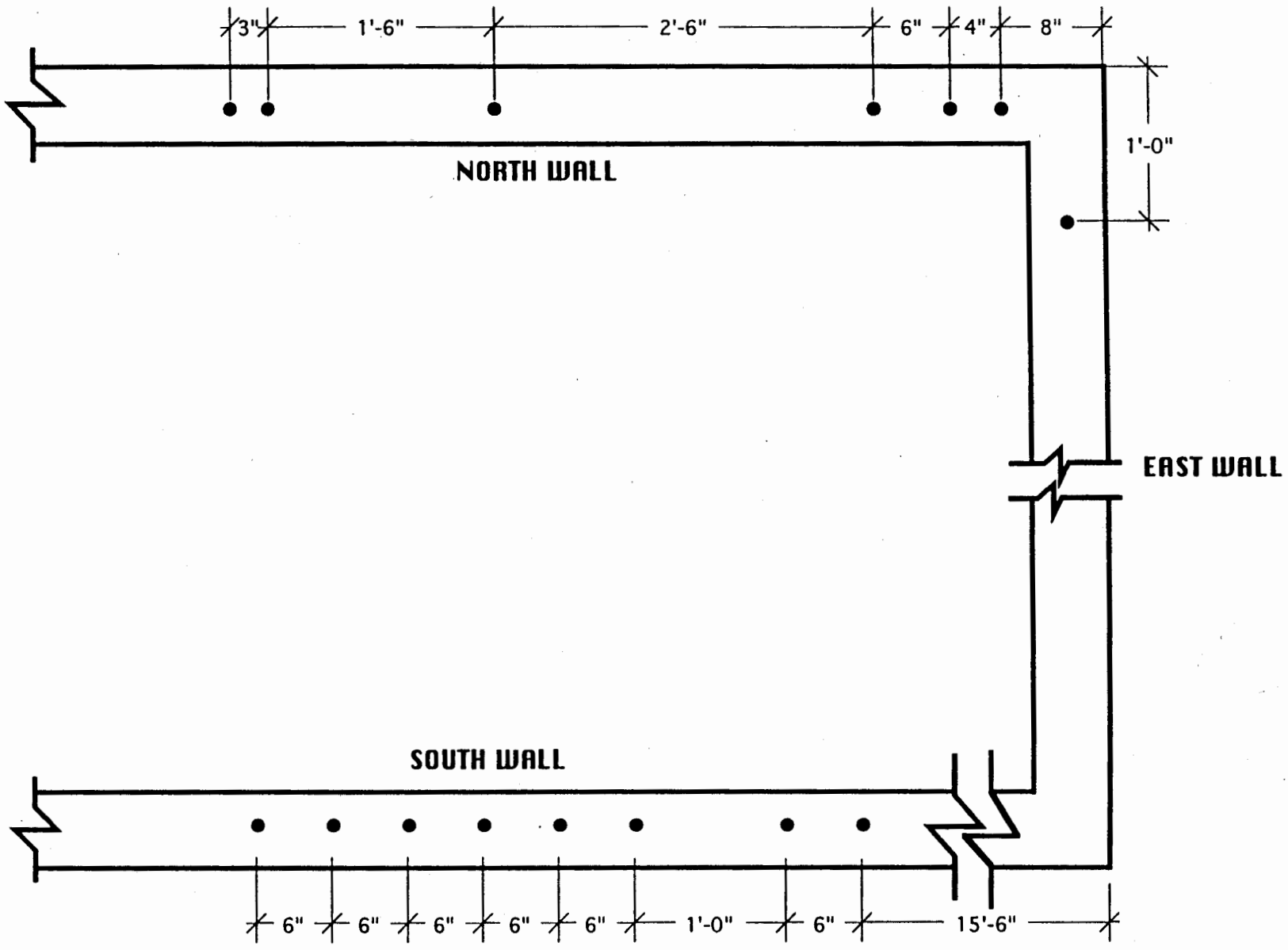


FIGURE 6.	PROJECT: 9967.40.09 DATE: 1-15-93	TANK WALL SAMPLING LOCATIONS	EVAPORATION TANK CLOSURE

On February 10, 1993, ASI obtained additional soil samples from sample locations 1, 2 and 3 (see Figure 5) at intervals of 42-50 inches (Sample #1A) and 77-81 inches (Sample #2A) (location 1); 35-42 inches (Sample #1B) and 72-80 inches (Sample #2B) (location 2); and, 43-51 inches (Sample #1C) and 70-78 inches (Sample #2C) (location 3).

On February 16, 1993, ASI cored three additional sampling locations through the 3" diameter PVC casings and obtained additional soil samples. These three additional soil samples were obtained from the interval of 0-6 inches (Sample #'s D-West, E-Middle and F-East).

The stainless steel auger was decontaminated between each sample in accordance with the Quality Assurance/Quality Control (QA/QC) Plan. Soil samples were collected in pre-cleaned, 1,000 milliliter (ml) stainless steel bucket samplers. All containers were pre-cleaned at the laboratory with alkaline detergent, rinsed with tap water, final rinsed with deionized water and dried at 105°C (+/-) for one hour before shipment to the field. Separate samplers were used for each sample and no samples were combined. The samples were immediately placed in 8-ounce wide mouth glass jars with Teflon-lined phenolic caps. The soil was placed into the containers so that the sample was flush with the top of the jar. The container was appropriately sealed and tagged. No preservatives were added. Immediately after taking the sample, each container was blister wrapped, placed in a Ziploc plastic bag and placed in cold storage at 4°C(+/-). A chain-of-custody form was prepared for each sample and enclosed in the cooler. Labeling and chain-of-custody procedures followed *Test Methods for Evaluating Solid Waste - Physical/ Chemical Methods SW-846, 3rd Edition,* 1986. After sampling, the PVC pipes were capped to protect the soil from external sources of contamination.

All field activity was documented in a daily log book. A copy of the log book is in Appendix C.

2. CLOSURE PERFORMANCE STANDARDS

In conformance with the NMED approved Closure Plan, the method of final closure for WSMR Site No. 90 was established based on the results of the analyses of the residual waste, tank matrix, and soil samples. As stated in section 3.2 Closure Performance Standards of the Closure Plan: "the site shall be deemed suitable for clean closure if the tank structure and the underlying soils and groundwater do not exceed NMED-Approved, Health-based Concentration Limits for all hazardous constituents". In Section 5.1, Tank Matrix and Soil Sampling of the Closure Plan, it is stated that "if the underlying soils do not indicate detectable concentrations of hazardous constituents above the Method Detection Limit (MDL), the unit will have met the requirements for closure."

The MDL is a technology-driven standard and is based on the accuracy and capabilities of the particular analytical equipment and testing method. The accuracy of testing equipment can show contamination levels above the MDL even though the soil is below a "health-based standard". ASI requested that WSMR determine which "health-based standard" referenced in the Closure Plan should be used.

On 10 December 1992, WSMR requested a response from the NMED regarding whether clean closure of the Evaporation Tank could be based on the proposed Subpart S regulations as published by the United States Environmental Protection Agency (U.S. EPA) in the Federal Register, July 27, 1990 (Appendix B). A formal response from NMED 22 December 1992, stated

"The agency does generally follow the health based concentration limits that may be found in the July 27, 1990, Federal Register when evaluating a clean closure demonstration for an interim status unit. The Hazardous and Radioactive Materials Bureau (HRMB) of the NMED will make no determination as to whether or not the unit has met the requirements for clean closure until an evaluation of the closure certification and report documenting the quality of closure actions has been conducted. Specifically, in order for NMED to accept a certification of clean closure, WSMR must demonstrate through this report that any identified contaminates remaining in-situ will not present any significant or adverse impact on any environmental media. WSMR must demonstrate that direct contact with the residual contaminates through exposure, inhalation, or ingestion will not result in a significant and adverse threat to human health and the environment, or that direct contact with the residual contaminates is precluded by the closure activities.

3. CHEMICAL ANALYSIS

All chemical analysis results are in Appendix A.

The analyses of the residual materials removed from the inner-tank and the background soil sample indicated several exceedances of 6010 and 9010 Method Detection Limits (MDL). These constituent exceedance concentrations and the MDL; are presented in Table 2. The analytical results for the tank rinseate and the potable water showed several exceedances of the 8270, 9010 and 6010 MDLs. These exceedances are presented in Table 3. The analytical results of the concrete tank matrices indicated constituent exceedances of the 9010, 6010, 8240, and 8270 MDLs as listed in Table 4. All of the analyses indicated elevated levels of barium. The barium exceedances of the background soils sample and the potable water sample strongly indicate that this constituent is naturally occurring. To further establish the natural occurrence of barium, WSMR directed ASI to conduct a TCLP analysis on the concrete tank matrices samples previously analyzed for Appendix IX constituents. On 10 July 1992, ASI directed that this testing be conducted. These test results again indicated high levels of barium. To establish that the concrete tank matrix was non-hazardous, WSMR directed ASI to obtain additional samples from the outer-tank walls. On 6 August 1992, ASI obtained and delivered additional samples for analysis. On 22 September 1992, WSMR telefaxed a formal request to the NMED-HRMB to exclude barium exceedances when considering whether or not the concrete tank matrix was hazardous. On 23 September 1992, NMED-HRMB formally responded and denied the request. The NMED-HRMB also questioned the accuracy of the results and suggested that additional TCLP analysis be conducted. Subsequent to this denial, WSMR directed ASI to have the analytical laboratory review and confirm their results.

The laboratory indicated that "severe spectral interference will be observed when measuring barium in the presence of calcium due to a strong CaOH band occurring around the same wavelength". The laboratory re-evaluated the previous concrete tank matrix samples utilizing a different testing apparatus that would not present such interference. The test results from these analyses indicated significantly lower TCLP level for barium. A certificate of amended results was forwarded from the laboratory to ASI. These levels were determined to be below the Resource Conservation and Recovery Act (RCRA) hazardous waste regulatory limits of 100 milligram/kilogram (mg/kg) for barium. Subsequently, WSMR determined the concrete tank matrix was not hazardous. On 18 November, 1992, the NMED-HRMB formally concurred with WSMR.

TABLE 2 - CONSTITUENT EXCEEDANCES FOR RESIDUAL MATERIALS AND BACKGROUND SOIL SAMPLE

Solid Parameter	SAMPLE LOCATION ET-1 Concentration (mg/kg)	ET-3* Concentration (mg/kg)	Method Detection Limit (mg/Kg)
Arsenic	1.5	1.2	0.5
Barium	360	220	10
Chromium	9	<MDL	5.0
Copper	12	<MDL	2.5
Cyanide	24	1	1
Lead	21	<MDL	10
Nickel	3.5	<MDL	2.5
Silver	8	3.5	2.5
Tin	4	4	2.5
Vanadium	9.5	13	2.5
Zinc	42	11	2.5

Liquid Parameter	SAMPLE LOCATION ET-2 Concentration (mg/L)	Method Detection Limit (mg/L)
Barium	30	0.20
Cadmium	0.05	0.05
Chromium	0.10	0.10
Copper	0.13	0.05
Cyanide	0.42	0.01
Lead	0.62	0.20
Nickel	0.24	0.05
Silver	25	0.05
Zinc	.24	0.05

* BACKGROUND SOIL SAMPLE
<MDL = LESS THAN METHOD DETECTION LIMIT

TABLE 3. CONSTITUENT EXCEEDANCES IN POTABLE WATER AND TANK RINSEATE

Exceedances in Potable Water

Parameter	Concentration	Method Detection Limit
Total Metals	mg/L	mg/L
Barium	0.51	0.20

Exceedances in Tank Rinseate

Parameter	Concentration	Method Detection Limit
Total Metals	mg/L	mg/L
Antimony	0.10	0.05
Barium	5.90	0.20
Copper	0.06	0.05
Silver	0.08	0.05
Tin	0.09	0.05
Thallium	0.11	0.10
Zinc	0.15	0.05
Inorganic Non-Metals		
Sulfide, Total	1.10	0.10
Cyanide, Ammenable	1.51	0.01
Cyanide, Total	1.60	0.01
Semi-Volatile Organics		
Bis(2-ethylhexyl) phthalate	73.00	10.00

TABLE 4. CONSTITUENT EXCEEDANCES IN CONCRETE TANK MATRIX

Exceedances in Tank Matrix

	SAMPLE LOCATION #1	#2	#3	
Inorganic Non-Metals				
Parameter		Concentration mg/L		Method Detection Limit mg/L
Sulfide, Total	37.00	200.00	70.00	1.00
Cyanide, Ammenable	8.90	7.20	7.30	1.00
Cyanide, Total	37.00	21.00	20.00	0.10
Total Metals		mg/Kg		mg/Kg
Antimony	28.00	28.00	29.00	2.50
Arsenic	61.00	63.00	75.00	0.50
Barium	73.00	70.00	79.00	5.00
Chromium	2.50	3.00	4.10	2.50
Cobalt	3.90	4.50	5.50	2.50
Copper	240.00	240.00	250.00	2.50
Nickel	4.00	3.60	5.80	2.50
Silver	18.00	18.00	18.00	2.50
Thallium	22.00	22.00	22.00	5.00
Vanadium	12.00	9.80	12.00	2.50
Zinc	130.00	150.00	160.00	2.50
Volatile Organics		ug/Kg		ug/Kg
Xylenes	32.00	29.00	<MDL	10.00
Semi-Volatile Organics		ug/Kg		ug/Kg
Two - Nitrophenol	<MDL	770.00	<MDL	200.00
Phenol	<MDL	1400.00	<MDL	200.00
Bis(2-ethylhexyl) phthalate	300.00	<MDL	1100.00	200.00
Di-n-butyl phthalate	2200.00	<MDL	960.00	100.00
a,a Dimethyl-phenethylamine	4800.00	11000.00	4600.00	1000.00
Isophorone	1400.00	15000.00	3600.00	200.00
N-Nitroso-di-n-propylamine	<MDL	<MDL	450.00	200.00

Exceedances in Extraction Blank

Semi-Volatile Organics		
Parameter	Concentration ug/Kg	Method Detection Limit ug/Kg
Di-n-butyl phthalate	3000.00	100.00

In October of 1992, the TCLP analysis were conducted on soil samples collected from under the Evaporation Tank. The soil samples obtained from the interval between 0 to 6 inches and 30 to 36 inches below the concrete tank bottom indicated several exceedances of the TCLP Regulatory Level for cyanides and trichoroethylene and levels above method 9010/12 MDL. These analytical exceedances and their corresponding Regulatory Limit and MDL's are presented in Table 5; the complete laboratory analyses are included in Appendix A. In accordance with the approved closure plan, Appendix IX sampling was completed in January of 1993 for additional samples (Sample # D-West, E-Middle and F-East). These soil samples collected between 0 to 6 inches below the concrete tank bottom did not indicate any constituents above any MDL.

TABLE 5 - CONSTITUENT EXCEEDANCES IN SUBSURFACE SOILS

	SAMPLE LOCATION			
	# 1	# 2	# 3	Limit
	0"- 6"	0"- 6"	0"- 6"	
Cyanides	14.00 mg/Kg	2.40 mg/Kg	10.00 mg/Kg	1.0 mg/Kg MDL
Trichoroethylene	1.60 mg/L	<Reg. Limit	0.53 mg/L	0.5 mg/L Reg.
	30"- 36"	30"- 36"	30"- 36"	
Cyanides	2.10 mg/Kg	<Reg. Limit	1.60 mg/Kg	1.0 mg/Kg MDL
Trichoroethylene	1.30 mg/L	1.00 mg/L	<Reg. Limit	0.5 mg/L Reg.

The Appendix IX constituent analyses of the soil samples obtained on 10 February 1993 indicated exceedances of method 9010/12 and 6010 MDLs. The constituent exceedances are presented in Table 6. The results from the 16 February 1993 soil sampling indicated the exceedances of method 6100 MDL and are presented in Table 7.

4. CHAIN-OF-CUSTODY

A formal chain-of-custody procedure was used to document the transfer of samples from field sampling personnel to the shipping agent (Federal Express) and to the commercial laboratory (Westech Laboratories) performing the chemical analysis. The original chain-of-custody forms are an integral component of the project records. These documents can be utilized to verify the untampered integrity of the collected samples, from the field to the laboratory. Proper signature documentation of all personnel involved in sample collection, processing and transport was maintained to indicate receipt and relinquishment of samples as appropriate (Appendix A). The chain-of-custody procedures were followed to create an accurate written record to trace the possession and handling of the sample from the moment of its collection through analysis. All samples sent to the laboratory were accompanied by the chain-of-custody document.

TABLE 6
CONSTITUENT EXCEEDANCES, SOIL SAMPLES (10 FEB 1993) UPPER INTERVAL

	SAMPLE LOCATION			
	#1	#2	#3	
Inorganic Non-Metals	42"- 50"	35"- 42"	43"- 51"	
Parameter		Concentration mg/Kg		Method Detection Limit mg/Kg
Cyanide	1.4	<MDL	<MDL	0.5
Total Metals				
Parameter		Concentration mg/Kg		Method Detection Limit mg/Kg
Arsenic		4.0	6.0	0.5
Barium	130	68	82	5.0
Copper	3.5	7.5	15	2.5
Cobalt	<MDL	6.0	2.6	2.5
Lead	15	12	13	5.0
Nickel	7	7.5	6.5	5.0
Silver	4.5	<MDL	2.5	2.5
Tin	3	9.7	10	2.5
Vanadium	15	18	19	2.5
Zinc	25	26	74	2.5

TABLE 7
CONSTITUENT EXCEEDANCES, SOIL SAMPLES (10 FEB 1993) LOWER INTERVAL

	SAMPLE LOCATION			
	#1	#2	#3	
	77"- 81"	72"- 80"	70"- 78"	
Total Metals				
Parameter		Concentration mg/Kg		Method Detection Limit mg/Kg
Arsenic	3.0	<MDL	7.5	0.5
Barium	120	190	160	5.0
Lead	12	11	12	5.0
Nickel	6.5	<MDL	<MDL	5.0
Silver	3.0	<MDL	2.5	2.5
Tin	9.2	5	8.5	2.5
Vanadium	20	<MDL	5.0	2.5
Zinc	13	4	18	2.5

<MDL = LESS THAN METHOD DETECTION LIMIT

5. ANALYTICAL SERVICES QUALITY CONTROL

Analytical services performed in support of this project were conducted by Westech Laboratories, Incorporated (Westech) of El Paso Texas. The Westech QA/QC plan was prepared and implemented in accordance with the U.S. EPA guidelines and specifications. This QA/QC plan describes the procedures used to document & report accuracy, precision, representations, comparability and completeness of the analytical services provided. Specifically, the Westech QA/QC plan includes procedures for:

- QA/QC objectives for measurement data,
- sampling procedures,
- sample custody and laboratory operations,
- calibration procedures and frequency,
- analytical procedures,
- data reduction, validation, and reporting,
- laboratory QC checks,
- performance and system audits,
- instrumentation and maintenance,
- data precision, accuracy, and completions,
- corrective action, and
- QA/QC reporting.

Westech retains records of all steps in the processing of samples for analysis. These records detail the sample identification, date of performance, analytical procedures followed, the results obtained, the measure of precision and accuracy achieved and the identities of who performed the analyses and who reviewed and approved the results. Appropriate records are maintained in laboratory notebooks, files, and computer storage. All results of chemical analyses are retained permanently on microfilm by Westech.

Analytical methods used by Westech are taken from "Standard Methods for the Examination of Water and Wastewater", 15th Edition, 1980 and 16th Edition, 1985; "Methods for Chemical Analysis of Water and Wastewater Laboratories," EPA 600/4-79-019, Cincinnati, OH, March 1979; EPA, "Test Methods for the Evaluation of Solid Waste," EPA SW-846, Cincinnati, OH, November 1986; "Official Methods of Analysis of the Association of Analytical Chemists" 14th edition, 1984; "Annual Book of ASTM Standards, Water and Environmental Technology, Volume II, 1984; and "NIOSH Manual of Analytical Methods" 3rd Edition, 1985.

All analyses were performed by use of standard procedures. As a general methodology guide, Standard Methods, published jointly by the American Public Health Association (APHA), American Water Works Association (AWWA), and Water Pollution Control Federation (WPCF), was used for environmental samples. Westech ensures current ongoing evaluation of adequacy and appropriateness of the methods.

Analyses on samples taken from the Evaporation Tank, including trip and extraction blanks, were performed in accordance with procedures referenced in the Federal Register, Vol. 49, No. 209, October 26, 1984; published in EPA publication SW846, 2nd Ed., July 1982, and in the proposed addition to SW846, 1984; or in the EPA Publication SW846, 3rd Ed., September 1986.

Westech maintains inter-laboratory quality control by participating in various federal, national, state and private sector programs providing performance evaluation and system audit checks on laboratory data quality.

6. WASTE DISPOSAL

A total of five drums of waste were generated during the decontamination and cleaning of the Evaporation Tank. Two drums contained residual solid waste removed from the Evaporation Tank. Analysis of these drums' contents indicated high levels of PCBs (up to 1500 ppm) and cyanide contamination up to 86 ppm. The drums were dated and labeled as hazardous waste, and then entered on the WSMR Hazardous Waste Tracking System for ultimate disposal through the Defense Reutilization and Marketing Office (DRMO). These two drums were transferred inside the HWSF building for DRMO transport.

Two drums contain waste from the decontamination and wash-down operation. The Evaporation Tank was steam cleaned five times during decontamination, and the rinseate was gathered and placed in drums for analysis and disposal. Analyses indicated trace amounts of metals and cyanide. The drum was labeled as hazardous waste and logged into the WSMR Hazardous Waste Tracking System for disposal through the DRMO.

The fifth drum contained personnel protective equipment (PPE) and other associated debris contaminated with PCBs and heavy metals. This drum was labeled as hazardous waste solid-not otherwise specified (NOS). The drum was entered on the WSMR hazardous waste tracking system for disposal through the DRMO.

7. HEALTH AND SAFETY

A Health and Safety Plan (HASP) was prepared by ASI for the evaporation tank closure to ensure that work was conducted in a safe manner and to protect and inform the employees. The HASP served as a guide to ensure that all closure activities will comply with the Occupational Safety and Health Act (OSHA) Hazardous Waste Operations and Emergency Response, Interim Final Rule, as defined in 29 CFR 1910, and any other applicable federal, state, and local regulations. OSHA regulations require that all onsite ASI personnel have a minimum of 40 hours of training in health and safety for hazardous waste operations. In addition, all ASI onsite sampling personnel are enrolled in a yearly medical surveillance program, including a physical exam and work history, with special emphasis on symptoms related to the handling of hazardous substances and fitness for duty.

7.1 MEETINGS

As part of the HASP all workers attended daily "tailgate safety meetings." These meetings served to inform workers on the type of hazardous work they will be expected to perform. All site workers were informed about the dangerous materials they may encounter or handle. Worker training satisfies the requirements of the Hazardous Waste Operations and Emergency Response Interim Final Rule as specified in 29 CFR 1910.120. Additionally, at least one member of the onsite crew had current certificates in cardiopulmonary resuscitation (CPR) and first aid.

8. ENVIRONMENTAL AND HEALTH CONSIDERATIONS

8.1 ENVIRONMENTAL CHARACTERISTICS

As requested by the NMED, the following sections have been included to address groundwater, surface water, and atmospheric considerations at the Evaporation Tank site.

8.1.1 General Ground Water Characteristics at the WSMR

Very few wells have been drilled in the south-central part of the Tularosa Basin groundwater aquifer due to the naturally saline quality of the ground water. No reported hydraulic data are available for the basin deposits in the immediate vicinity of the HWSF. The Gregg Site Supply Well is located approximately 1 mile northeast of the HWSF and is completed within basin deposits similar to those encountered at the HWSF. An average saturated hydraulic conductivity of 18 feet/day was reported for the permeable sand units of the Gregg Site Supply Well; this value may be representative of the permeable sand units encountered by the test wells adjacent to the HWSF.

Recharge to the regional aquifer is from precipitation falling on the mountain ranges and alluvial fans which border the basin on the east and west. This precipitation infiltrates through the unconsolidated, relatively coarse deposits of the alluvial fans and travels as ground water toward the center of the Tularosa Basin. However, ground water flow directions may be altered locally because of the pumpage of water supply wells and subsurface geologic anomalies. The ground water within the western Tularosa Basin is presumed to be naturally discharged to the south, as underflow into the contiguous, northern Hueco Basin of western Texas. There are no reported surface occurance of ground water discharge within the southwestern Tularosa Basin. Dissolved constituents in ground water increase with distance from the mountain recharge fronts.

Wells completed within the alluvial fans of the western Tularosa Basin supply fresh water to satisfy the water needs of the WSMR. These wells are located west of and upgradient from the HWSF. Because of the relatively low hydraulic conductivity, these remote production wells are protected from any activities which occur at the HWSF.

8.1.2 Site-Specific Ground Water Characteristics at the HWSF

Test wells TW-1, TW-2, and TW-3, completed at total depths of 300 feet and located immediately adjacent to the HWSF, encountered unconfined ground water approximately 230 feet below land surface. This ground water occurs in the more permeable silty-sand/sand units of the unconsolidated Quartenary alluvial deposits. Unconsolidated clay, silt, sand, and gravel strata overlie this regional aquifer, with the finer-grained lithologies predominating, and caliche layers and nodules are prevalent throughout the stratigraphic section. The finer-grained strata and caliche deposits act to impede the vertical migration of free liquids and help to isolate the unconfined aquifer from the effects of activities at the overlying HWSF.

Chemical analyses of ground water samples withdrawn from test wells TW-1, TW-2, and TW-3 indicate a saline, sodium- chloride/sodium-sulfate type water with a total dissolved solids content of approximately 15,000 mg/L. This poor quality ground water is generally classified as a Class III ground water resource, meaning the ground water is unfit for human consumption without treatment. The trace element chemistry of this water indicates no effects related to the overlying HWSF.

The recommended closure of the evaporation tank will effectively preclude migration of any residual contaminants into the underlying aquifer.

8.1.3 Surface Water Features

There are no surface waters or intermittent streams located in the immediate operational area of the Evaporation Tank, and the site is not located within a 100-year floodplain. Surface waters at WSMR are normally scarce due to low precipitation, high evaporation, and the favorable absorptive characteristics of the soils. At the base of the mountains and sloping toward the basin are steep alluvial aprons. The surface drainage originating in the mountains flows across the alluvial fans and terminates in the lowest portion of the basin, which is Lake Lucero. Although the local drainage courses are oriented toward the center of the basin, the overall drainage is to the south.

The closure of the Evaporation Tank will include demolition of the tank walls and leaving the tank bottom in place. This will preclude the disruption of the residual soils under the closed Evaporation Tank and therefore, will preclude the migration of potential, residual contaminants by surface water flows.

8.1.4 Atmospheric Features

The closure of the Evaporation Tank includes features to preclude the transportation of potential, residual contaminants by winds. The leaving of the tank bottom in place will immobilize and isolate the underlying soils from the effects of wind activity. These measures will effectively prevent the windborne transportation of residual contaminants related to the subsurface soils.

8.2 PROTECTION OF HUMAN HEALTH AND THE ENVIRONMENT

8.2.1 Protection to Human Health

The closure of the Evaporation Tank includes features designed to be protective of human health. The closed Evaporation Tank is located within the secure boundaries of the WSMR and the HWSF. The HWSF is subject to daily periodic inspections by security personnel of the U.S. Army. The removal of the concrete tank walls will prevent the Evaportaion Tank from being used as secondary containment for wastes. Leaving the concrete slab in place will prevent the infiltration of storm water and minimize the potential for subsurface contaminant transport. As the residual contaminants will be unavailable for transport, exposures via dermal, inhalative, and ingestive pathways are precluded and the protection of human health and the environment is assured.

8.2.2 Protection to Flora and Fauna

The closure of the Evaporation Tank includes features designed to protect wildlife of the area. Large mammals that occur in the southern area of WSMR are restricted from entrance to the HWSF by a security fence 6 feet in height. Birds, small rodents and invertebrate animals which may enter the HWSF are prevented from contacting the potential residual soil contaminates by the existing concrete floor slab. Burrowing animals are also precluded from digging under the tank by the concrete slab. The area of the HWSF is routinely cleared of all vegetation by WSMR personnel and no impacts are anticipated to the naturally occurring vegetation outside the fenced area.

9. MINIMUM REPORTING REQUIREMENTS

As specified in the closure plan the following minimum reporting requirements must be included in the final closure report. Each requirement is individually addressed below:

- The QA/QC summary of the adequacy of laboratory analyses and the decontamination demonstration of the Evaporation Tank are discussed in Section 5 of this report.

- A Construction Quality Assurance (CQA) summary of the closure activities will be required. No construction activities were associated with this closure.

- A listing of supporting documentation for the closure activities:
  1. Field log books documenting on-site closure activities are presented in Appendix C to this report.
  2. All reports of laboratory sample analysis are presented in Appendix A to this report.
  3. The QA/QC documentation for the laboratory is discussed in Section 5 of this report.
  4. Chain-of-Custody records for samples are provided in Appendix A.

- Disposal locations of all hazardous waste and hazardous waste residues associated with this closure are addressed in Section 6 of this report.

- A narrative description of all testing completed during closure activities are discussed in Section 3 of this report.

- The details of any variance from the approved closure plan and reason for such variance is explained in Sections 1.5 and 3 of this report.

- A survey plot is provided in Appendix D "USGS Site Groundwater report," page 4.

- A certification of the accuracy of the report is signed by a professional engineer in Section 10.

- Measures to control contaminated particulate emissions are addressed in Section 8.2 of this report.

10. CERTIFICATION OF CLOSURE

CERTIFICATION OF CLOSURE

This is to certify that on April 15, 1993 under my direction, the Chemical Evaporation Tank (Evaporation Tank), located in the Hazardous Waste Storage Facility (HWSF) approximately 8 miles east of the White Sands Missile Range (WSMR) Main Post was closed in accordance with (1) Evaporation Tank Closure Plan as prepared by WSMR Environmental Office (ES-E); as revised on May 21, 1992; as approved by the New Mexico Environment Department-Hazardous Waste Bureau June 1, 1992; and (2) specific direction given by WSMR-ES-E.

The details of the closure activities are contained within this report.

OWNER OPERATOR White Sands Missile Range	Date
Gilbert A. Baca, P.E. NM Reg. No. 5641	4/15/93 Date

APPENDIX A

CHAIN-OF-CUSTODY FORMS AND ANALYTICAL RESULTS

Westech Laboratories Inc.
The Quality People
Since 1955

Phoenix • 3737 E. Broadway Rd. • AZ 85040 • 602-437-1080 • fax 437-8706
Flagstaff • 2300 E. Huntington Dr. • AZ 86004 • 602-774-2312 • fax 774-6469
El Paso • 10737 Gateway West #100 • TX 79935 • 915-592-3591 • fax 592-3594

CHAIN OF CUSTODY RECORD

2/16/93

CLIENT	ADDRESS
ASI	555 S. Telshor Blvd. #310 Las Cruces, NM 88001
TELEPHONE (505) 522-7279	PROJECT 9967.40.09
	JOB P.O. NO.

• REFER TO FEE SCHEDULE FOR ANALYSES SELECTION •

SAMPLER (SIGNATURE): J. T. Gibbs

SAMPLER (PLEASE PRINT): Joel Gibbs

SAMPLE TYPE CODES: S – SOIL; O – OIL; T – TRAVEL BLANK; W – WATER; G – SLUDGE; F – FIELD BLANK; X – OTHER (SPECIFY)

SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE LOCATION	COMPOSITE	GRAB	SAMPLE TYPE	NUMBER OF CONTAINERS	HOLD	Approx. 1 L Metals: Sb As Be Ba Cd Ca Co Cu Pb Hg Ni Se Ag Sn Tl V Zn	8260 - appendix 9	8270 appendix 9	8080	8150	T-cyanide, Sulfide	COMMENTS	LABORATORY IDENTIFICATION
Evap Tank	2/12	5:10	D - West		✓		1		X						Surface 0-6"	6300521
Evap Tank	2/12	5:20	E - Middle		✓		1		X						Surface 0-6"	6300522
Evap Tank	2/12	5:30	F - East		✓		1		X						Surface 0-6"	6300523

RELINQUISHED BY (SIGNATURE)	PRINT NAME	DATE / TIME	RECEIVED BY (SIGNATURE)	PRINT NAME
J. T. Gibbs	Joel T. Gibbs	2/12/93 11:45	George Esquede	George Esquede
George Esquede	George Esquede	2/16/93 3:00 PM	B. Thompson	

REMARKS

SAMPLE PROCESS TURNAROUND TIME: ☐ 10 BUSINESS DAYS ☐ OTHER (SPECIFY)

Westech Laboratories Inc.
The Quality People
Since 1955

10737 Gateway West, No. 100
El Paso, Texas 79935
(915) 592-3591 • fax 592-3594

CLIENT Advanced Sciences Inc.
555 S. Telshor Ste 310
Las Cruces, NM 88001

SAMPLE NO. : 6300521
INVOICE NO.: 62130123
REPORT DATE: 02-19-93
REVIEWED BY: LAT
PAGE : 1 OF 1

CLIENT SAMPLE ID : Evap. Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: D-West

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : 9967 40 09
SAMPLE DATE ...: 02-12-93
SUBMITTAL DATE : 12-16-93
EXTRACTION DATE: --

Inorganic Non-Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Total(Distillation) .....:	2.3	mg/Kg	1.0	02-24-93
Sulfide,Reactive .....:	<50.	mg/Kg	50.	02-22-93

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Las Cruces, NM 88001

SAMPLE NO. : 6300521
INVOICE NO.: 62130123
REPORT DATE: 02-19-93
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : Evap. Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: D-West

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : 9967 40 09
SAMPLE DATE ...: 02-12-93
SUBMITTAL DATE : 12-16-93
EXTRACTION DATE: --

Inorganic Chemistry-Total Metals

D A T A T A B L E

Parameter	Result	Unit	Detection Limit	Analysis Date
Total Antimony .....:	<2.5	mg/Kg	2.5	03-03-93
Total Arsenic .....:	<2.5	mg/Kg	2.5	03-03-93
Total Barium .....:	32.	mg/Kg	5.0	02-18-93
Total Beryllium .....:	<2.5	mg/Kg	2.5	03-03-93
Total Cadmium .....:	<2.5	mg/Kg	2.5	02-18-93
Total Chromium .....:	<5.0	mg/Kg	5.0	02-18-93
Total Cobalt .....:	<2.5	mg/Kg	2.5	03-03-93
Total Copper .....:	2.5	mg/Kg	2.5	02-23-93
Total Lead .....:	<5.0	mg/Kg	5.0	02-18-93
Total Mercury .....:	<0.5	mg/Kg	0.5	02-24-93
Total Nickel .....:	<5.0	mg/Kg	5.0	02-23-93
Total Selenium .....:	<2.5	mg/Kg	2.5	03-03-93
Total Silver .....:	2.5	mg/Kg	2.5	02-19-93
Total Tin .....:	11	mg/Kg	2.5	03-08-93
Total Thallium .....:	<50	mg/Kg	50	02-23-93
Total Vanadium .....:	9.3	mg/Kg	2.5	03-03-93
Total Zinc .....:	13	mg/Kg	2.5	02-23-93

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SAMPLE NO. : 6300521
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PAGE : 1 OF 1

CLIENT SAMPLE ID : Evap. Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: D-West
ANALYST .....: S.Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : 9967 40 09
SAMPLE DATE ...: 02-12-93
SUBMITTAL DATE : 12-16-93
EXTRACTION DATE: 02-19-93
ANALYSIS DATE .: 02-24-93

Method 8080 - Pesticides & PCB'S

DATA TABLE

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/Kg	10.
4,4'-DDE	<10.	ug/Kg	10.
4,4'-DDT	<10.	ug/Kg	10.
Aldrin	<10.	ug/Kg	10.
alpha-BHC	<10.	ug/Kg	10.
beta-BHC	<10.	ug/Kg	10.
delta-BHC	<10.	ug/Kg	10.
Chlordane	<150.	ug/Kg	150.
Dieldrin	<10.	ug/Kg	10.
Endosulfan I	<10.	ug/Kg	10.
Endosulfan II	<10.	ug/Kg	10.
Endosulfan sulfate	<10.	ug/Kg	10.
Endrin	<10.	ug/Kg	10.
Endrin aldehyde	<10.	ug/Kg	10.
Heptachlor	<10.	ug/Kg	10.
Hetachlor Epoxide	<10.	ug/Kg	10.
Lindane	<10.	ug/Kg	10.
Methoxychlor	<10.	ug/Kg	10.
Toxaphene	<250.	ug/Kg	250.
PCB 1016	<500.	ug/Kg	500.
PCB 1221	<2500.	ug/Kg	2500.
PCB 1232	<500.	ug/Kg	500.
PCB 1242	<500.	ug/Kg	500.
PCB 1248	<500.	ug/Kg	500.
PCB 1254	<500.	ug/Kg	500.
PCB 1260	<500.	ug/Kg	500.

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ANALYST .....: S. Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : 9967 40 09
SAMPLE DATE ...: 02-12-93
SUBMITTAL DATE : 12-16-93
EXTRACTION DATE: 02-23-93
ANALYSIS DATE .: 03-02-93

Method 8150 - Chlorinated Herbicides

DATA TABLE

Parameter	Result	Unit	Detection Limit
,4,5-T	<40.	ug/Kg	40.
,4,5-TP (Silvex)	<40.	ug/Kg	40.
2,4-D	<200.	ug/Kg	200.
2,4-DB	<200.	ug/Kg	200.
Dalapon	<1000.	ug/Kg	1000.
Dicamba	<200.	ug/Kg	200.
Dichlorprop	<200.	ug/Kg	200.
Dinoseb	<200.	ug/Kg	200.
MCPA	<4000.	ug/Kg	4000.
MCPP	<5000.	ug/Kg	5000.

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PAGE : 1 OF 2

CLIENT SAMPLE ID : Evap. Tank
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SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: D-West
ANALYST .....: S.Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : 9967 40 09
SAMPLE DATE ...: 02-12-93
SUBMITTAL DATE : 12-16-93
EXTRACTION DATE: 03-11-93
ANALYSIS DATE .: 03-11-93

Method 8260 - Volatile Organics
Appendix IX Compounds

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
Acetone .....:	<100.	ug/Kg	100.
Acrolein .....:	<1000.	ug/Kg	1000.
Acrylonitrile .....:	<1000.	ug/Kg	1000.
Benzene .....:	<50.	ug/Kg	50.
Bromodichloromethane .....:	<100.	ug/Kg	100.
Bromoform .....:	<100.	ug/Kg	100.
Bromomethane .....:	<100.	ug/Kg	100.
Carbon Disulfide .....:	<10.	ug/Kg	10.
Carbon tetrachloride .....:	<50.	ug/Kg	50.
Chlorobenzene .....:	<50.	ug/Kg	50.
Dibromochloromethane .....:	<100.	ug/Kg	100.
Chloroethane .....:	<100.	ug/Kg	100.
Chloroform .....:	<50.	ug/Kg	50.
Chloromethane .....:	<100.	ug/Kg	100.
3-Chloropropene .....:	<100.	ug/Kg	100.
1,2-Dibromo-3-chloropropane .....:	<50.	ug/Kg	50.
1,2Dibromoethane .....:	<100.	ug/Kg	100.
Dibromomethane .....:	<250.	ug/Kg	250.
trans-1,4-Dichloro-2-Butene .....:	<100.	ug/Kg	100.
Dichlorodifluoromethane .....:	<250.	ug/Kg	250.
1,1-Dichloroethane .....:	<50.	ug/Kg	50.
1,2-Dichloroethane .....:	<50.	ug/Kg	50.
1,1-Dichloroethene .....:	<50.	ug/Kg	50.
trans 1,2-Dichloroethene .....:	<50.	ug/Kg	50.
Dichloromethane .....:	<50.	ug/Kg	50.
1,2-Dichloropropane .....:	<50.	ug/Kg	50.
Chloroethylvinyl Ether .....:	<50.	ug/Kg	50.
Cis 1,3-Dichloropropylene .....:	<50.	ug/Kg	50.
1,4-Dioxane .....:	<200.	ug/Kg	200.
Ethylbenzene .....:	<50.	ug/Kg	50.

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INVOICE NO.: 62130123
REPORT DATE: 02-19-93
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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide ..... :	<500.	ug/Kg	500.
Ethylmethacrylate ..... :	<1000.	ug/Kg	1000.
2-Hexanone ..... :	<100.	ug/Kg	100.
Iodomethane (Methyliodide) ..... :	<100.	ug/Kg	100.
Isobutyl alcohol ..... :	<100.	ug/Kg	100.
Methacrylonitrile ..... :	<500.	ug/Kg	500.
Methyl ethyl ketone ..... :	<100.	ug/Kg	100.
Methyl Methacrylate ..... :	<500.	ug/Kg	500.
Methyl isobutyl ketone ..... :	<100.	ug/Kg	100.
yrene ..... :	<50.	ug/Kg	50.
,1,2,2-Tetrachloroethene ..... :	<50.	ug/Kg	50.
Toluene ..... :	<50.	ug/Kg	50.
1,1,1-Trichloroethane ..... :	<50.	ug/Kg	50.
1,1,2-Trichloroethane ..... :	<50.	ug/Kg	50.
Trichloroethene ..... :	<50.	ug/Kg	50.
Trichlorofluoromethane ..... :	<100.	ug/Kg	100.
1,2,3-Trichloropropane ..... :	<50.	ug/Kg	50.
Vinyl Acetate ..... :	<1000.	ug/Kg	1000.
Vinyl chloride ..... :	<100.	ug/Kg	100.
Xylenes ..... :	<10.	ug/Kg	10.
1,1,1,2-Tetrachloroethane ..... :	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethane ..... :	<50.	ug/Kg	50.

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SAMPLE SOURCE ...: D-West
ANALYST .....: S.Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : 9967 40 09
SAMPLE DATE ...: 02-12-93
SUBMITTAL DATE : 12-16-93
EXTRACTION DATE: 03-02-93
ANALYSIS DATE .: 03-05-93

Method 8270 - Semi-Volatile Organics
Appendix IX Compounds

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
2-sec-Butyl-4,6-Dinitrophenol ....:	<200.	ug/Kg	200.
4-Chloro-3-methylphenol .....:	<200.	ug/Kg	200.
2-Chlorophenol .....:	<200.	ug/Kg	200.
2,4-Dichlorophenol .....:	<200.	ug/Kg	200.
2,6 Dichorophenol .....:	<200.	ug/Kg	200.
2,4-Dimethylphenol .....:	<200.	ug/Kg	200.
4,6-Dinitro-2-Methylphenol .....:	<200.	ug/Kg	200.
2,4-Dinitrophenol .....:	<200.	ug/Kg	200.
2-Methylphenol .....:	<200.	ug/Kg	200.
3-Methylphenol .....:	<100.	ug/Kg	100.
4-Methylphenol .....:	<100.	ug/Kg	100.
2-Nitrophenol .....:	<200.	ug/Kg	200.
4-Nitrophenol .....:	<500.	ug/Kg	500.
Pentachlorophenol .....:	<300.	ug/Kg	300.
Phenol .....:	<200.	ug/Kg	200.
2,3,4,6-Tetrachlorophenol .....:	<100.	ug/Kg	100.
2,4,5-Trichlorophenol .....:	<100.	ug/Kg	100.
2,4,6-Trichlorophenol .....:	<100.	ug/Kg	100.
Acenaphthene .....:	<200.	ug/Kg	200.
Acenaphthylene .....:	<200.	ug/Kg	200.
Acetophenone .....:	<660.	ug/Kg	660.
2-Acetylaminofluorene .....:	<200.	ug/Kg	200.
4-Aminobiphenyl .....:	<200.	ug/Kg	200.
Aniline .....:	<500.	ug/Kg	500.
Anthracene .....:	<200.	ug/Kg	200.
Aramite .....:	<1300.	ug/Kg	1300.
Benzo(a)anthracene .....:	<200.	ug/Kg	200.
Benzo(a)pyrene .....:	<200.	ug/Kg	200.
Benzo(b)fluoranthene .....:	<660.	ug/Kg	660.
Benzo(ghi)perylene .....:	<200.	ug/Kg	200.

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SAMPLE NO. : 6300521
INVOICE NO.: 62130123
REPORT DATE: 02-19-93
REVIEWED BY: [illegible]

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Benzo(K)fluoranthene .....:	<200.	ug/Kg	200.
Benzyl alcohol .....:	<1300.	ug/Kg	1300.
Bis(2-Chloroethoxyl)methane .....:	<200.	ug/Kg	200.
Bis(2-Chloroethyl)ether .....:	<200.	ug/Kg	200.
Bis(2-chloroisopropyl)ether .....:	<200.	ug/Kg	200.
Bis(2-ethylhexyl) phthalate .....:	<200.	ug/Kg	200.
4-Bromophenyl phenyl ether .....:	<100.	ug/Kg	100.
Butyl benzyl phthalate .....:	<200.	ug/Kg	200.
Di-n-butyl phthalate .....:	<100.	ug/Kg	100.
Chloro-1,3-Butadiene .....:	<100.	ug/Kg	100.
-Chloroaniline .....:	<200.	ug/Kg	200.
Chlorobenzilate .....:	<3300.	ug/Kg	3300.
2-Chloronaphthalene .....:	<200.	ug/Kg	200.
4-Chlorophenyl phenyl ether .....:	<200.	ug/Kg	200.
Chrysene .....:	<200.	ug/Kg	200.
Diallate (cis of trans) .....:	<660.	ug/Kg	660.
Dibenzo(a,h)anthracene .....:	<200.	ug/Kg	200.
Dibenzofuran .....:	<660.	ug/Kg	660.
1,2-Dichlorobenzene .....:	<200.	ug/Kg	200.
1,3-Dichlorobenzene .....:	<200.	ug/Kg	200.
1,4-Dichlorobenzene .....:	<200.	ug/Kg	200.
3,3'-Dichlorobenzidine .....:	<300.	ug/Kg	300.
Diethyl Phthalate .....:	<200.	ug/Kg	200.
O,O-Diethyl-O-2-Pyrazinyl .....:	<1000.	ug/Kg	1000.
Phosphorothioate .....:			
Dimethoate .....:	<1300.	ug/Kg	1300.
a,a Dimethylphenethylamine .....:	<1000.	ug/Kg	1000.
Dimethyl phthalate .....:	<200.	ug/Kg	200.
p-Dimethylaminozobenzene .....:	<1000.	ug/Kg	1000.
7,12-Dimethylbenz(a)anthracene ...:	<660.	ug/Kg	660.
3,3'-Dimethylbenzidine .....:	<660.	ug/Kg	660.
M-Dimitrobenzene .....:	<200.	ug/Kg	200.
2,4-Dinitrotoluene .....:	<200.	ug/Kg	200.
2,6-Dinitrotoluene .....:	<200.	ug/Kg	200.
Disulfoton .....:	<660.	ug/Kg	660.
Ethyl Methanesulfonate .....:	<1300.	ug/Kg	1300.
Famphur .....:	<1300.	ug/Kg	1300.
Fluoranthene .....:	<200.	ug/Kg	200.

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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Fluorene	<200.	ug/Kg	200.
Hexachlorobutadiene	<200.	ug/Kg	200.
Hexachlorobenzene	<200.	ug/Kg	200.
Hexachlorocyclopentadiene	<200.	ug/Kg	200.
Hexachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Hexachlorodibenzofurans	<200.	ug/Kg	200.
Hexachloroethane	<200.	ug/Kg	200.
Hexachlorophene	<3300.	ug/Kg	3300.
Hexachloropropene	<660.	ug/Kg	660.
Indo(1,2,3-cd)pyrene	<200.	ug/Kg	200.
Isophorone	<200.	ug/Kg	200.
Isosafrole	<660.	ug/Kg	660.
Kepone	<1300.	ug/Kg	1300.
Methapyrilene	<6600.	ug/Kg	6600.
Methylmethansulfonate	<660.	ug/Kg	660.
3-Methylcholanthrene	<200.	ug/Kg	200.
3-Methylcholanthrene	<200.	ug/Kg	200.
2-Methylnaphthalene	<660.	ug/Kg	660.
Napthalene	<200.	ug/Kg	200.
1,4-Naphthoquinone	<660.	ug/Kg	660.
1-Naphthylamine	<660.	ug/Kg	660.
2-Naphthylamine	<200.	ug/Kg	200.
5-Nitro-o-toluidine	<660.	ug/Kg	660.
2-Nitrophenol	<200.	ug/Kg	200.
3-Nitroaniline	<1000.	ug/Kg	1000.
4-Nitroaniline	<200.	ug/Kg	200.
Nitrobenzene	<200.	ug/Kg	200.
4-Nitroquinoline-1-oxide	<2600.	ug/Kg	2600.
N-Nitrosodibutylamine	<200.	ug/Kg	200.
N-Nitroso-di-n-propylamine	<200.	ug/Kg	200.
N-Nitrosodiethylamine	<200.	ug/Kg	200.
N-Nitroso Dimethyl Amine	<400.	ug/Kg	400.
N-Nitrosodiphenylamine	<200.	ug/Kg	200.
N-Nitrosomethylethylamine	<100.	ug/Kg	100.
N-Nitrosomorpholine	<200.	ug/Kg	200.
N-Nitrosopiperidine	<1000.	ug/Kg	1000.
N-Nitrosopyrrolidine	<2600.	ug/Kg	2600.
Di-n-Octyl Phthalate	<100.	ug/Kg	100.

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SAMPLE NO. : 6300521
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REPORT DATE: 02-19-93
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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Pentachlorobenzene	<100.	ug/Kg	100.
Pentachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Pentachlorodibenzofurans	<200.	ug/Kg	200.
Pentachloroethane	<100.	ug/Kg	100.
Pentachloronitrobenzene	<1300.	ug/Kg	1300.
Phenacetin	<1300.	ug/Kg	1300.
Phenanthrene	<200.	ug/Kg	200.
Phorate	<660.	ug/Kg	660.
2-Picoline	<500.	ug/Kg	500.
onamide	<660.	ug/Kg	660.
yrene	<200.	ug/Kg	200.
Pyridine	<1000.	ug/Kg	1000.
Safrole	<660.	ug/Kg	660.
1,2,4,5-Tetrachlorobenzene	<660.	ug/Kg	660.
2,3,7,8-Tetrchlorodibenzo-p-dioxin	<200.	ug/Kg	200.
Tetrachlorodibenzo-p-dioxins	<200.	ug/Kg	200.
Tetrachlordibenzofurans	<200.	ug/Kg	200.
Tetraethlydithiopyrophosphate	<1000.	ug/Kg	1000.
1,2,4-Trichlorobenzene	<200.	ug/Kg	200.
Methyl parathion	<660.	ug/Kg	660.
Parathion	<660.	ug/Kg	660.
2,4,5-TP (Silvex)	<500.	ug/Kg	500.
2,4,5-T	<500.	ug/Kg	500.

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SAMPLE NO. : 6300522
INVOICE NO.: 62130123
REPORT DATE: 02-23-93
REVIEWED BY: [illegible]
PAGE : 1 OF 1

CLIENT SAMPLE ID : Evap. Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: E-Middle

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : 9967 40 09
SAMPLE DATE ...: 02-12-93
SUBMITTAL DATE : 12-16-93
EXTRACTION DATE: --

Inorganic Non-Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Total(Distillation) .....:	<1.0	mg/Kg	1.0	02-24-93
Sulfide,Reactive .....:	<50.	mg/Kg	50.	02-22-9[illegible]

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PAGE : 1 OF 1

CLIENT SAMPLE ID : Evap. Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: E-Middle

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : 9967 40 09
SAMPLE DATE ...: 02-12-93
SUBMITTAL DATE : 12-16-93
EXTRACTION DATE: --

Inorganic Chemistry-Total Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Total Antimony .....:	<2.5	mg/Kg	2.5	03-03-93
Total Arsenic .....:	<2.5	mg/Kg	2.5	03-03-93
Total Barium .....:	29.	mg/Kg	5.0	02-18-93
Total Beryllium .....:	<2.5	mg/Kg	2.5	03-03-93
Total Cadmium .....:	<2.5	mg/Kg	2.5	02-18-93
Total Chromium .....:	<5.0	mg/Kg	5.0	02-18-93
Total Cobalt .....:	<2.5	mg/Kg	2.5	03-03-93
Total Copper .....:	<2.5	mg/Kg	2.5	02-23-93
Total Lead .....:	<5.0	mg/Kg	5.0	02-18-93
Total Mercury .....:	<0.5	mg/Kg	0.5	02-24-93
Total Nickel .....:	<5.0	mg/Kg	5.0	02-23-93
Total Selenium .....:	<2.5	mg/Kg	2.5	03-03-93
Total Silver .....:	2.5	mg/Kg	2.5	02-19-93
Total Tin .....:	9.9	mg/Kg	2.5	03-08-93
Total Thallium .....:	<50	mg/Kg	50	02-23-93
Total Vanadium .....:	11	mg/Kg	2.5	03-03-93
Total Zinc .....:	14	mg/Kg	2.5	02-23-93

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555 S. Telshor Ste 310
Las Cruces, NM 88001

SAMPLE NO. : 6300522
INVOICE NO.: 62130123
REPORT DATE: 02-23-93
REVIEWED BY: [illegible]
PAGE : 1 OF 1

CLIENT SAMPLE ID : Evap. Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: E-Middle
ANALYST .....: S.Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : 9967 40 09
SAMPLE DATE ...: 02-12-93
SUBMITTAL DATE : 12-16-93
EXTRACTION DATE: 02-19-93
ANALYSIS DATE .: 02-24-93

Method 8080 - Pesticides & PCB'S

DATA TABLE

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/Kg	10.
4,4'-DDE	<10.	ug/Kg	10.
4,4'-DDT	<10.	ug/Kg	10.
Aldrin	<10.	ug/Kg	10.
alpha-BHC	<10.	ug/Kg	10.
beta-BHC	<10.	ug/Kg	10.
delta-BHC	<10.	ug/Kg	10.
Chlordane	<150.	ug/Kg	150.
Dieldrin	<10.	ug/Kg	10.
Endosulfan I	<10.	ug/Kg	10.
Endosulfan II	<10.	ug/Kg	10.
Endosulfan sulfate	<10.	ug/Kg	10.
Endrin	<10.	ug/Kg	10.
Endrin aldehyde	<10.	ug/Kg	10.
Heptachlor	<10.	ug/Kg	10.
Hetachlor Epoxide	<10.	ug/Kg	10.
Lindane	<10.	ug/Kg	10.
Methoxychlor	<10.	ug/Kg	10.
Toxaphene	<250.	ug/Kg	250.
PCB 1016	<500.	ug/Kg	500.
PCB 1221	<2500.	ug/Kg	2500.
PCB 1232	<500.	ug/Kg	500.
PCB 1242	<500.	ug/Kg	500.
PCB 1248	<500.	ug/Kg	500.
PCB 1254	<500.	ug/Kg	500.
PCB 1260	<500.	ug/Kg	500.

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SAMPLE NO. : 6300522
INVOICE NO.: 62130123
REPORT DATE: 02-23-93
REVIEWED BY: SS
PAGE : 1 OF 1

CLIENT SAMPLE ID : Evap. Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: E-Middle
ANALYST .....: S. Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : 9967 40 09
SAMPLE DATE ...: 02-12-93
SUBMITTAL DATE : 12-16-93
EXTRACTION DATE: 02-23-93
ANALYSIS DATE .: 03-02-93

Method 8150 - Chlorinated Herbicides

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
2,4,5-T	<40.	ug/Kg	40.
2,4,5-TP (Silvex)	<40.	ug/Kg	40.
2,4-D	<200.	ug/Kg	200.
2,4-DB	<200.	ug/Kg	200.
Dalapon	<1000.	ug/Kg	1000.
Dicamba	<200.	ug/Kg	200.
Dichlorprop	<200.	ug/Kg	200.
Dinoseb	<200.	ug/Kg	200.
MCPA	<4000.	ug/Kg	4000.
MCPP	<5000.	ug/Kg	5000.

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CLIENT SAMPLE ID : Evap. Tank
SAMPLE TYPE .....: Soil
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SAMPLE SOURCE ...: E-Middle
ANALYST .....: S.Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : 9967 40 09
SAMPLE DATE ...: 02-12-93
SUBMITTAL DATE : 12-16-93
EXTRACTION DATE: 03-11-93
ANALYSIS DATE .: 03-11-93

Method 8260 - Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
Acetone	<100.	ug/Kg	100.
Acrolein	<1000.	ug/Kg	1000.
Acrylonitrile	<1000.	ug/Kg	1000.
Benzene	<50.	ug/Kg	50.
Bromodichloromethane	<100.	ug/Kg	100.
Bromoform	<100.	ug/Kg	100.
Bromomethane	<100.	ug/Kg	100.
Carbon Disulfide	<10.	ug/Kg	10.
Carbon tetrachloride	<50.	ug/Kg	50.
Chlorobenzene	<50.	ug/Kg	50.
Dibromochloromethane	<100.	ug/Kg	100.
Chloroethane	<100.	ug/Kg	100.
Chloroform	<50.	ug/Kg	50.
Chloromethane	<100.	ug/Kg	100.
3-Chloropropene	<100.	ug/Kg	100.
1,2-Dibromo-3-chloropropane	<50.	ug/Kg	50.
1,2Dibromoethane	<100.	ug/Kg	100.
Dibromomethane	<250.	ug/Kg	250.
trans-1,4-Dichloro-2-Butene	<100.	ug/Kg	100.
Dichlorodifluoromethane	<250.	ug/Kg	250.
1,1-Dichloroethane	<50.	ug/Kg	50.
1,2-Dichloroethane	<50.	ug/Kg	50.
1,1-Dichloroethene	<50.	ug/Kg	50.
trans 1,2-Dichloroethene	<50.	ug/Kg	50.
Dichloromethane	<50.	ug/Kg	50.
1,2-Dichloropropane	<50.	ug/Kg	50.
Chloroethylvinyl Ether	<50.	ug/Kg	50.
Cis 1,3-Dichloropropylene	<50.	ug/Kg	50.
1,4-Dioxane	<200.	ug/Kg	200.
Ethylbenzene	<50.	ug/Kg	50.

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SAMPLE NO. : 6300522
INVOICE NO.: 62130123
REPORT DATE: 02-23-93
REVIEWED BY: fff

D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide ....:	<500.	ug/Kg	500.
Ethylmethacrylate ....:	<1000.	ug/Kg	1000.
2-Hexanone ....:	<100.	ug/Kg	100.
Iodomethane (Methyliodide) ....:	<100.	ug/Kg	100.
Isobutyl alcohol ....:	<100.	ug/Kg	100.
Methacrylonitrile ....:	<500.	ug/Kg	500.
Methyl ethyl ketone ....:	<100.	ug/Kg	100.
Methyl Methacrylate ....:	<500.	ug/Kg	500.
Methyl isobutyl ketone ....:	<100.	ug/Kg	100.
tyrene ....:	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethene ....:	<50.	ug/Kg	50.
Toluene ....:	<50.	ug/Kg	50.
1,1,1-Trichloroethane ....:	<50.	ug/Kg	50.
1,1,2-Trichloroethane ....:	<50.	ug/Kg	50.
Trichloroethene ....:	<50.	ug/Kg	50.
Trichlorofluoromethane ....:	<100.	ug/Kg	100.
1,2,3-Trichloropropane ....:	<50.	ug/Kg	50.
Vinyl Acetate ....:	<1000.	ug/Kg	1000.
Vinyl chloride ....:	<100.	ug/Kg	100.
Xylenes ....:	<10.	ug/Kg	10.
1,1,1,2-Tetrachloroethane ....:	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethane ....:	<50.	ug/Kg	50.

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PAGE : 1 OF 4

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SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: E-Middle
ANALYST .....: S.Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : 9967 40 09
SAMPLE DATE ...: 02-12-93
SUBMITTAL DATE : 12-16-93
EXTRACTION DATE: 03-02-93
ANALYSIS DATE .: 03-05-93

Method 8270 - Semi-Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
2-sec-Butyl-4,6-Dinitrophenol ....:	<200.	ug/Kg	200.
4-Chloro-3-methylphenol .....:	<200.	ug/Kg	200.
2-Chlorophenol .....:	<200.	ug/Kg	200.
2,4-Dichlorophenol .....:	<200.	ug/Kg	200.
2,6 Dichorophenol .....:	<200.	ug/Kg	200.
2,4-Dimethylphenol .....:	<200.	ug/Kg	200.
4,6-Dinitro-2-Methylphenol .....:	<200.	ug/Kg	200.
2,4-Dinitrophenol .....:	<200.	ug/Kg	200.
2-Methylphenol .....:	<200.	ug/Kg	200.
3-Methylphenol .....:	<100.	ug/Kg	100.
4-Methylphenol .....:	<100.	ug/Kg	100.
2-Nitrophenol .....:	<200.	ug/Kg	200.
4-Nitrophenol .....:	<500.	ug/Kg	500.
Pentachlorophenol .....:	<300.	ug/Kg	300.
Phenol .....:	<200.	ug/Kg	200.
2,3,4,6-Tetrachlorophenol .....:	<100.	ug/Kg	100.
2,4,5-Trichlorophenol .....:	<100.	ug/Kg	100.
2,4,6-Trichlorophenol .....:	<100.	ug/Kg	100.
Acenaphthene .....:	<200.	ug/Kg	200.
Acenaphthylene .....:	<200.	ug/Kg	200.
Acetophenone .....:	<660.	ug/Kg	660.
2-Acetylaminofluorene .....:	<200.	ug/Kg	200.
4-Aminobiphenyl .....:	<200.	ug/Kg	200.
Aniline .....:	<500.	ug/Kg	500.
Anthracene .....:	<200.	ug/Kg	200.
Aramite .....:	<1300.	ug/Kg	1300.
Benzo(a)anthracene .....:	<200.	ug/Kg	200.
Benzo(a)pyrene .....:	<200.	ug/Kg	200.
Benzo(b)fluoranthene .....:	<660.	ug/Kg	660.
Benzo(ghi)perylene .....:	<200.	ug/Kg	200.

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INVOICE NO.: 62130123
REPORT DATE: 02-23-93
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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Benzo(K)fluoranthene .....:	<200.	ug/Kg	200.
Benzyl alcohol .....:	<1300.	ug/Kg	1300.
Bis(2-Chloroethoxyl)methane .....:	<200.	ug/Kg	200.
Bis(2-Chloroethyl)ether .....:	<200.	ug/Kg	200.
Bis(2-chloroisopropyl)ether .....:	<200.	ug/Kg	200.
Bis(2-ethylhexyl) phthalate .....:	<200.	ug/Kg	200.
4-Bromophenyl phenyl ether .....:	<100.	ug/Kg	100.
Butyl benzyl phthalate .....:	<200.	ug/Kg	200.
Di-n-butyl phthalate .....:	<100.	ug/Kg	100.
Chloro-1,3-Butadiene .....:	<100.	ug/Kg	100.
4-Chloroaniline .....:	<200.	ug/Kg	200.
Chlorobenzilate .....:	<3300.	ug/Kg	3300.
2-Chloronaphthalene .....:	<200.	ug/Kg	200.
4-Chlorophenyl phenyl ether .....:	<200.	ug/Kg	200.
Chrysene .....:	<200.	ug/Kg	200.
Diallate (cis of trans) .....:	<660.	ug/Kg	660.
Dibenzo(a,h)anthracene .....:	<200.	ug/Kg	200.
Dibenzofuran .....:	<660.	ug/Kg	660.
1,2-Dichlorobenzene .....:	<200.	ug/Kg	200.
1,3-Dichlorobenzene .....:	<200.	ug/Kg	200.
1,4-Dichlorobenzene .....:	<200.	ug/Kg	200.
3,3'-Dichlorobenzidine .....:	<300.	ug/Kg	300.
Diethyl Phthalate .....:	<200.	ug/Kg	200.
O,O-Diethyl-O-2-Pyrazinyl .....:	<1000.	ug/Kg	1000.
Phosphorothioate .....:			
Dimethoate .....:	<1300.	ug/Kg	1300.
a,a Dimethylphenethylamine .....:	<1000.	ug/Kg	1000.
Dimethyl phthalate .....:	<200.	ug/Kg	200.
p-Dimethylaminozobenzene .....:	<1000.	ug/Kg	1000.
7,12-Dimethylbenz(a)anthracene ...:	<660.	ug/Kg	660.
3,3'-Dimethylbenzidine .....:	<660.	ug/Kg	660.
M-Dimitrobenzene .....:	<200.	ug/Kg	200.
2,4-Dinitrotoluene .....:	<200.	ug/Kg	200.
2,6-Dinitrotoluene .....:	<200.	ug/Kg	200.
Disulfoton .....:	<660.	ug/Kg	660.
Ethyl Methanesulfonate .....:	<1300.	ug/Kg	1300.
Famphur .....:	<1300.	ug/Kg	1300.
Fluoranthene .....:	<200.	ug/Kg	200.

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SAMPLE NO. : 6300522
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REPORT DATE: 02-23-93
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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Fluorene	<200.	ug/Kg	200.
Hexachlorobutadiene	<200.	ug/Kg	200.
Hexachlorobenzene	<200.	ug/Kg	200.
Hexachlorocyclopentadiene	<200.	ug/Kg	200.
Hexachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Hexachlorodibenzofurans	<200.	ug/Kg	200.
Hexachloroethane	<200.	ug/Kg	200.
Hexachlorophene	<3300.	ug/Kg	3300.
Hexachloropropene	<660.	ug/Kg	660.
Indo(1,2,3-cd)pyrene	<200.	ug/Kg	200.
Isophorone	<200.	ug/Kg	200.
Isosafrole	<660.	ug/Kg	660.
Kepone	<1300.	ug/Kg	1300.
Methapyrilene	<6600.	ug/Kg	6600.
Methylmethansulfonate	<660.	ug/Kg	660.
3-Methylcholanthrene	<200.	ug/Kg	200.
3-Methylcholanthrene	<200.	ug/Kg	200.
2-Methylnaphthalene	<660.	ug/Kg	660.
Napthalene	<200.	ug/Kg	200.
1,4-Naphthoquinone	<660.	ug/Kg	660.
1-Naphthylamine	<660.	ug/Kg	660.
2-Naphthylamine	<200.	ug/Kg	200.
5-Nitro-o-toluidine	<660.	ug/Kg	660.
2-Nitrophenol	<200.	ug/Kg	200.
3-Nitroaniline	<1000.	ug/Kg	1000.
4-Nitroaniline	<200.	ug/Kg	200.
Nitrobenzene	<200.	ug/Kg	200.
4-Nitroquinoline-1-oxide	<2600.	ug/Kg	2600.
N-Nitrosodibutylamine	<200.	ug/Kg	200.
N-Nitroso-di-n-propylamine	<200.	ug/Kg	200.
N-Nitrosodiethylamine	<200.	ug/Kg	200.
N-Nitroso Dimethyl Amine	<400.	ug/Kg	400.
N-Nitrosodiphenylamine	<200.	ug/Kg	200.
N-Nitrosomethylethylamine	<100.	ug/Kg	100.
N-Nitrosomorpholine	<200.	ug/Kg	200.
N-Nitrosopiperidine	<1000.	ug/Kg	1000.
N-Nitrosopyrrolidine	<2600.	ug/Kg	2600.
Di-n-Octyl Phthalate	<100.	ug/Kg	100.

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SAMPLE NO. : 6300522
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REPORT DATE: 02-23-93
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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Pentachlorobenzene	<100.	ug/Kg	100.
Pentachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Pentachlorodibenzofurans	<200.	ug/Kg	200.
Pentachloroethane	<100.	ug/Kg	100.
Pentachloronitrobenzene	<1300.	ug/Kg	1300.
Phenacetin	<1300.	ug/Kg	1300.
Phenanthrene	<200.	ug/Kg	200.
Phorate	<660.	ug/Kg	660.
2-Picoline	<500.	ug/Kg	500.
Pronamide	<660.	ug/Kg	660.
Pyrene	<200.	ug/Kg	200.
Pyridine	<1000.	ug/Kg	1000.
Safrole	<660.	ug/Kg	660.
1,2,4,5-Tetrachlorobenzene	<660.	ug/Kg	660.
2,3,7,8-Tetrchlorodibenzo-p-dioxin :	<200.	ug/Kg	200.
Tetrachlorodibenzo-p-dioxins	<200.	ug/Kg	200.
Tetrachlordibenzofurans	<200.	ug/Kg	200.
Tetraethlydithiopyrophosphate	<1000.	ug/Kg	1000.
1,2,4-Trichlorobenzene	<200.	ug/Kg	200.
Methyl parathion	<660.	ug/Kg	660.
Parathion	<660.	ug/Kg	660.
2,4,5-TP (Silvex)	<500.	ug/Kg	500.
2,4,5-T	<500.	ug/Kg	500.

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CLIENT SAMPLE ID : Evap. Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: F-East

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : 9967 40 09
SAMPLE DATE ...: 02-12-93
SUBMITTAL DATE : 12-16-93
EXTRACTION DATE: --

Inorganic Non-Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Total(Distillation) .....:	82.	mg/Kg	1.0	02-24-93
Sulfide,Reactive .....:	<50.	mg/Kg	50.	02-22-9[illegible]

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SAMPLE SOURCE ...: F-East

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : 9967 40 09
SAMPLE DATE ...: 02-12-93
SUBMITTAL DATE : 12-16-93
EXTRACTION DATE: --

Inorganic Chemistry-Total Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Total Antimony .....:	<2.5	mg/Kg	2.5	03-03-93
Total Arsenic .....:	<2.5	mg/Kg	2.5	03-03-93
Total Barium .....:	32.	mg/Kg	5.0	02-18-93
Total Beryllium .....:	<2.5	mg/Kg	2.5	03-03-93
Total Cadmium .....:	<2.5	mg/Kg	2.5	02-18-93
Total Chromium .....:	<5.0	mg/Kg	5.0	02-18-93
Total Cobalt .....:	<2.5	mg/Kg	2.5	03-03-93
Total Copper .....:	<2.5	mg/Kg	2.5	02-23-93
Total Lead .....:	<5.0	mg/Kg	5.0	02-18-93
Total Mercury .....:	<0.5	mg/Kg	0.5	02-24-93
Total Nickel .....:	<5.0	mg/Kg	5.0	02-23-93
Total Selenium .....:	<2.5	mg/Kg	2.5	03-03-93
Total Silver .....:	<2.5	mg/Kg	2.5	02-19-93
Total Tin .....:	43	mg/Kg	2.5	03-08-93
Total Thallium .....:	<50	mg/Kg	50	02-23-93
Total Vanadium .....:	11	mg/Kg	2.5	03-03-93
Total Zinc .....:	12	mg/Kg	2.5	02-23-93

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CLIENT Advanced Sciences Inc.
555 S. Telshor Ste 310
Las Cruces, NM 88001

SAMPLE NO. : 6300523
INVOICE NO.: 62130123
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : Evap. Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: F-East
ANALYST .....: S.Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : 9967 40 09
SAMPLE DATE ...: 02-12-93
SUBMITTAL DATE : 12-16-93
EXTRACTION DATE: 02-19-93
ANALYSIS DATE .: 02-24-93

Method 8080 - Pesticides & PCB'S

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/Kg	10.
4,4'-DDE	<10.	ug/Kg	10.
4,4'-DDT	<10.	ug/Kg	10.
Aldrin	<10.	ug/Kg	10.
alpha-BHC	<10.	ug/Kg	10.
beta-BHC	<10.	ug/Kg	10.
delta-BHC	<10.	ug/Kg	10.
Chlordane	<10.	ug/Kg	10.
Dieldrin	<10.	ug/Kg	10.
Endosulfan I	<10.	ug/Kg	10.
Endosulfan II	<10.	ug/Kg	10.
Endosulfan sulfate	<10.	ug/Kg	10.
Endrin	<10.	ug/Kg	10.
Endrin aldehyde	<10.	ug/Kg	10.
Heptachlor	<10.	ug/Kg	10.
Hetachlor Epoxide	<10.	ug/Kg	10.
Lindane	<10.	ug/Kg	10.
Methoxychlor	<10.	ug/Kg	10.
Toxaphene	<250.	ug/Kg	250.
PCB 1016	<500.	ug/Kg	500.
PCB 1221	<2500.	ug/Kg	2500.
PCB 1232	<500.	ug/Kg	500.
PCB 1242	<500.	ug/Kg	500.
PCB 1248	<500.	ug/Kg	500.
PCB 1254	<500.	ug/Kg	500.
PCB 1260	<500.	ug/Kg	500.

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SAMPLE NO. : 6300523
INVOICE NO.: 62130123
REPORT DATE: 02-23-93
REVIEWED BY: SS
PAGE : 1 OF 1

CLIENT SAMPLE ID : Evap. Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: F-East
ANALYST .....: S. Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : 9967 40 09
SAMPLE DATE ...: 02-12-93
SUBMITTAL DATE : 12-16-93
EXTRACTION DATE: 02-23-93
ANALYSIS DATE .: 03-02-93

Method 8150 - Chlorinated Herbicides

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
2,4,5-T	<40.	ug/Kg	40.
2,4,5-TP (Silvex)	<40.	ug/Kg	40.
2,4-D	<200.	ug/Kg	200.
2,4-DB	<200.	ug/Kg	200.
Dalapon	<1000.	ug/Kg	1000.
Dicamba	<200.	ug/Kg	200.
Dichlorprop	<200.	ug/Kg	200.
Dinoseb	<200.	ug/Kg	200.
MCPA	<4000.	ug/Kg	4000.
MCPP	<5000.	ug/Kg	5000.

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SAMPLE NO. : 6300523
INVOICE NO.: 62130123
REPORT DATE: 02-23-93
REVIEWED BY: [illegible]
PAGE : 2 OF 2

D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide ..... :	<500.	ug/Kg	500.
Ethylmethacrylate ..... :	<1000.	ug/Kg	1000.
2-Hexanone ..... :	<100.	ug/Kg	100.
Iodomethane (Methyliodide) ..... :	<100.	ug/Kg	100.
Isobutyl alcohol ..... :	<100.	ug/Kg	100.
Methacrylonitrile ..... :	<500.	ug/Kg	500.
Methyl ethyl ketone ..... :	<100.	ug/Kg	100.
Methyl Methacrylate ..... :	<500.	ug/Kg	500.
Methyl isobutyl ketone ..... :	<100.	ug/Kg	100.
Styrene ..... :	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethene ..... :	<50.	ug/Kg	50.
Toluene ..... :	<50.	ug/Kg	50.
1,1,1-Trichloroethane ..... :	<50.	ug/Kg	50.
1,1,2-Trichloroethane ..... :	<50.	ug/Kg	50.
Trichloroethene ..... :	<50.	ug/Kg	50.
Trichlorofluoromethane ..... :	<100.	ug/Kg	100.
1,2,3-Trichloropropane ..... :	<50.	ug/Kg	50.
Vinyl Acetate ..... :	<1000.	ug/Kg	1000.
Vinyl chloride ..... :	<100.	ug/Kg	100.
Xylenes ..... :	<10.	ug/Kg	10.
1,1,1,2-Tetrachloroethane ..... :	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethane ..... :	<50.	ug/Kg	50.

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SAMPLE NO. : 6300523
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PAGE : 1 OF 2

CLIENT SAMPLE ID : Evap. Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: F-East
ANALYST .....: S.Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : 9967 40 09
SAMPLE DATE ...: 02-12-93
SUBMITTAL DATE : 12-16-93
EXTRACTION DATE: 03-11-93
ANALYSIS DATE .: 03-11-93

Method 8260 - Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
Acetone	<100.	ug/Kg	100.
Acrolein	<1000.	ug/Kg	1000.
Acrylonitrile	<1000.	ug/Kg	1000.
Benzene	<50.	ug/Kg	50.
Bromodichloromethane	<100.	ug/Kg	100.
Bromoform	<100.	ug/Kg	100.
Bromomethane	<100.	ug/Kg	100.
Carbon Disulfide	<10.	ug/Kg	10.
Carbon tetrachloride	<50.	ug/Kg	50.
Chlorobenzene	<50.	ug/Kg	50.
Dibromochloromethane	<100.	ug/Kg	100.
Chloroethane	<100.	ug/Kg	100.
Chloroform	<50.	ug/Kg	50.
Chloromethane	<100.	ug/Kg	100.
3-Chloropropene	<100.	ug/Kg	100.
1,2-Dibromo-3-chloropropane	<50.	ug/Kg	50.
1,2Dibromoethane	<100.	ug/Kg	100.
Dibromomethane	<250.	ug/Kg	250.
trans-1,4-Dichloro-2-Butene	<100.	ug/Kg	100.
Dichlorodifluoromethane	<250.	ug/Kg	250.
1,1-Dichloroethane	<50.	ug/Kg	50.
1,2-Dichloroethane	<50.	ug/Kg	50.
1,1-Dichloroethene	<50.	ug/Kg	50.
trans 1,2-Dichloroethene	<50.	ug/Kg	50.
Dichloromethane	<50.	ug/Kg	50.
1,2-Dichloropropane	<50.	ug/Kg	50.
Chloroethylvinyl Ether	<50.	ug/Kg	50.
cis 1,3-Dichloropropylene	<50.	ug/Kg	50.
1,4-Dioxane	<200.	ug/Kg	200.
Ethylbenzene	<50.	ug/Kg	50.

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SAMPLE NO. : 6300523
INVOICE NO.: 62130123
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 1 OF 4

CLIENT SAMPLE ID : Evap. Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: F-East
ANALYST .....: S.Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : 9967 40 09
SAMPLE DATE ...: 02-12-93
SUBMITTAL DATE : 12-16-93
EXTRACTION DATE: 03-02-93
ANALYSIS DATE .: 03-05-93

Method 8270 - Semi-Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
2-sec-Butyl-4,6-Dinitrophenol ....:	<200.	ug/Kg	200.
4-Chloro-3-methylphenol .....:	<200.	ug/Kg	200.
2-Chlorophenol .....:	<200.	ug/Kg	200.
2,4-Dichlorophenol .....:	<200.	ug/Kg	200.
2,6 Dichorophenol .....:	<200.	ug/Kg	200.
2,4-Dimethylphenol .....:	<200.	ug/Kg	200.
4,6-Dinitro-2-Methylphenol .....:	<200.	ug/Kg	200.
2,4-Dinitrophenol .....:	<200.	ug/Kg	200.
2-Methylphenol .....:	<200.	ug/Kg	200.
3-Methylphenol .....:	<100.	ug/Kg	100.
4-Methylphenol .....:	<100.	ug/Kg	100.
2-Nitrophenol .....:	<200.	ug/Kg	200.
4-Nitrophenol .....:	<500.	ug/Kg	500.
Pentachlorophenol .....:	<300.	ug/Kg	300.
Phenol .....:	<200.	ug/Kg	200.
2,3,4,6-Tetrachlorophenol .....:	<100.	ug/Kg	100.
2,4,5-Trichlorophenol .....:	<100.	ug/Kg	100.
2,4,6-Trichlorophenol .....:	<100.	ug/Kg	100.
Acenaphthene .....:	<200.	ug/Kg	200.
Acenaphthylene .....:	<200.	ug/Kg	200.
Acetophenone .....:	<660.	ug/Kg	660.
2-Acetylaminofluorene .....:	<200.	ug/Kg	200.
4-Aminobiphenyl .....:	<200.	ug/Kg	200.
Aniline .....:	<500.	ug/Kg	500.
Anthracene .....:	<200.	ug/Kg	200.
Aramite .....:	<1300.	ug/Kg	1300.
Benzo(a)anthracene .....:	<200.	ug/Kg	200.
Benzo(a)pyrene .....:	<200.	ug/Kg	200.
Benzo(b)fluoranthene .....:	<660.	ug/Kg	660.
Benzo(ghi)perylene .....:	<200.	ug/Kg	200.

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SAMPLE NO. : 6300523
INVOICE NO.: 62130123
REPORT DATE: 02-23-93
REVIEWED BY: [illegible]

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Benzo(K)fluoranthene	<200.	ug/Kg	200.
Benzyl alcohol	<1300.	ug/Kg	1300.
Bis(2-Chloroethoxyl)methane	<200.	ug/Kg	200.
Bis(2-Chloroethyl)ether	<200.	ug/Kg	200.
Bis(2-chloroisopropyl)ether	<200.	ug/Kg	200.
Bis(2-ethylhexyl) phthalate	<200.	ug/Kg	200.
4-Bromophenyl phenyl ether	<100.	ug/Kg	100.
Butyl benzyl phthalate	<200.	ug/Kg	200.
i-n-butyl phthalate	<100.	ug/Kg	100.
-Chloro-1,3-Butadiene	<100.	ug/Kg	100.
4-Chloroaniline	<200.	ug/Kg	200.
Chlorobenzilate	<3300.	ug/Kg	3300.
2-Chloronaphthalene	<200.	ug/Kg	200.
4-Chlorophenyl phenyl ether	<200.	ug/Kg	200.
Chrysene	<200.	ug/Kg	200.
Diallate (cis of trans)	<660.	ug/Kg	660.
Dibenzo(a,h)anthracene	<200.	ug/Kg	200.
Dibenzofuran	<660.	ug/Kg	660.
1,2-Dichlorobenzene	<200.	ug/Kg	200.
1,3-Dichlorobenzene	<200.	ug/Kg	200.
1,4-Dichlorobenzene	<200.	ug/Kg	200.
3,3'-Dichlorobenzidine	<300.	ug/Kg	300.
Diethyl Phthalate	<200.	ug/Kg	200.
O,O-Diethyl-O-2-Pyrazinyl	<1000.	ug/Kg	1000.
Phosphorothioate			
Dimethoate	<1300.	ug/Kg	1300.
a,a Dimethylphenethylamine	<1000.	ug/Kg	1000.
Dimethyl phthalate	<200.	ug/Kg	200.
p-Dimethylaminozobenzene	<1000.	ug/Kg	1000.
7,12-Dimethylbenz(a)anthracene ...	<660.	ug/Kg	660.
3,3'-Dimethylbenzidine	<660.	ug/Kg	660.
M-Dimitrobenzene	<200.	ug/Kg	200.
2,4-Dinitrotoluene	<200.	ug/Kg	200.
2,6-Dinitrotoluene	<200.	ug/Kg	200.
isulfoton	<660.	ug/Kg	660.
thyl Methanesulfonate	<1300.	ug/Kg	1300.
Famphur	<1300.	ug/Kg	1300.
Fluoranthene	<200.	ug/Kg	200.

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SAMPLE NO. : 6300523
INVOICE NO.: 62130123
REPORT DATE: 02-23-93
REVIEWED BY:

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Fluorene	<200.	ug/Kg	200.
Hexachlorobutadiene	<200.	ug/Kg	200.
Hexachlorobenzene	<200.	ug/Kg	200.
Hexachlorocyclopentadiene	<200.	ug/Kg	200.
Hexachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Hexachlorodibenzofurans	<200.	ug/Kg	200.
Hexachloroethane	<200.	ug/Kg	200.
Hexachlorophene	<3300.	ug/Kg	3300.
Hexachloropropene	<660.	ug/Kg	660.
Indo(1,2,3-cd)pyrene	<200.	ug/Kg	200.
Isophorone	<200.	ug/Kg	200.
Isosafrole	<660.	ug/Kg	660.
Kepone	<1300.	ug/Kg	1300.
Methapyrilene	<6600.	ug/Kg	6600.
Methylmethansulfonate	<660.	ug/Kg	660.
3-Methylcholanthrene	<200.	ug/Kg	200.
3-Methylcholanthrene	<200.	ug/Kg	200.
2-Methylnaphthalene	<660.	ug/Kg	660.
Napthalene	<200.	ug/Kg	200.
1,4-Naphthoquinone	<660.	ug/Kg	660.
1-Naphthylamine	<660.	ug/Kg	660.
2-Naphthylamine	<200.	ug/Kg	200.
5-Nitro-o-toluidine	<660.	ug/Kg	660.
2-Nitrophenol	<200.	ug/Kg	200.
3-Nitroaniline	<1000.	ug/Kg	1000.
4-Nitroaniline	<200.	ug/Kg	200.
Nitrobenzene	<200.	ug/Kg	200.
4-Nitroquinoline-1-oxide	<2600.	ug/Kg	2600.
N-Nitrosodibutylamine	<200.	ug/Kg	200.
N-Nitroso-di-n-propylamine	<200.	ug/Kg	200.
N-Nitrosodiethylamine	<200.	ug/Kg	200.
N-Nitroso Dimethyl Amine	<400.	ug/Kg	400.
N-Nitrosodiphenylamine	<200.	ug/Kg	200.
N-Nitrosomethylethylamine	<100.	ug/Kg	100.
N-Nitrosomorpholine	<200.	ug/Kg	200.
N-Nitrosopiperidine	<1000.	ug/Kg	1000.
N-Nitrosopyrrolidine	<2600.	ug/Kg	2600.
Di-n-Octyl Phthalate	<100.	ug/Kg	100.

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SAMPLE NO. : 6300523
INVOICE NO.: 62130123
REPORT DATE: 02-23-93
REVIEWED BY: [illegible]

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Pentachlorobenzene	<100.	ug/Kg	100.
Pentachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Pentachlorodibenzofurans	<200.	ug/Kg	200.
Pentachloroethane	<100.	ug/Kg	100.
Pentachloronitrobenzene	<1300.	ug/Kg	1300.
Phenacetin	<1300.	ug/Kg	1300.
Phenanthrene	<200.	ug/Kg	200.
Phorate	<660.	ug/Kg	660.
-Picoline	<500.	ug/Kg	500.
:onamide	<660.	ug/Kg	660.
Pyrene	<200.	ug/Kg	200.
Pyridine	<1000.	ug/Kg	1000.
Safrole	<660.	ug/Kg	660.
1,2,4,5-Tetrachlorobenzene	<660.	ug/Kg	660.
2,3,7,8-Tetrchlorodibenzo-p-dioxin	<200.	ug/Kg	200.
Tetrachlorodibenzo-p-dioxins	<200.	ug/Kg	200.
Tetrachlordibenzofurans	<200.	ug/Kg	200.
Tetraethlydithiopyrophosphate	<1000.	ug/Kg	1000.
1,2,4-Trichlorobenzene	<200.	ug/Kg	200.
Methyl parathion	<660.	ug/Kg	660.
Parathion	<660.	ug/Kg	660.
2,4,5-TP (Silvex)	<500.	ug/Kg	500.
2,4,5-T	<500.	ug/Kg	500.

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QUALITY CONTROL REPORT

QC IDENTIFIER .....: 30-22493-1
REFERENCE NOTEBOOK : CH-129
REFERENCE PAGE ....: 9

INSTRUMENT : HEWLETT PACKARD GC-5890 DUEL ECD
ANALYZED BY : S.Smith
ANALYZED ON : 02-24-93

TEST DESCRIPTION ..: Method 8080 - Pesticides & PCB'S
TEST METHOD .....: 8080

SAMPLES IN THIS RUN: 6300391 6300394 6300401 6300402 6300403 6300404 6300405 6300443 6300444 6300445 6300446 6300447 6300448 6300521 6300522 6300523

CALIBRATION CHECK -

PARAMETER	UNIT	TRUE VALUE	FOUND VALUE	%RECOVERY
4,4'-DDD	ug/ml	0.30	0.30	100.0
4,4'-DDE	ug/ml	0.30	0.30	100.0
Aldrin	ug/ml	0.30	0.31	103.3
alpha-BHC	ug/ml	0.30	0.30	100.0
delta-BHC	ug/ml	0.30	0.36	120.0
Dieldrin	ug/ml	0.30	0.33	110.0
Endosulfan I	ug/ml	0.30	0.33	110.0
Endosulfan II	ug/ml	0.30	0.33	110.0
Endosulfan sulfate	ug/ml	0.60	0.63	105.0
Endrin	ug/ml	0.30	0.35	116.7
Endrin aldehyde	ug/ml	0.20	0.32	160.0
Heptachor	ug/ml	0.30	0.31	103.3
Hetachlor Epoxide	ug/ml	0.30	0.33	110.0
Methoxychlor	ug/ml	0.30	0.33	110.0
4,4'-DDD	ug/ml	0.30	0.34	113.3
4,4'-DDE	ug/ml	0.30	0.31	103.3
4,4'-DDT	ug/ml	0.30	0.36	120.0
Aldrin	ug/ml	0.30	0.32	106.7
alpha-BHC	ug/ml	0.30	0.32	106.7
beta-BHC	ug/ml	0.30	0.30	100.0
delta-BHC	ug/ml	0.30	0.37	123.3
Endosulfan I	ug/ml	0.30	0.33	110.0
Endosulfan II	ug/ml	0.30	0.35	116.7
Endosulfan sulfate	ug/ml	0.60	0.67	111.7
Heptachor	ug/ml	0.30	0.35	116.7
Hetachlor Epoxide	ug/ml	0.30	0.33	110.0
Lindane	ug/ml	0.30	0.32	106.7
4,4'-DDE	ug/ml	0.30	0.35	116.7
4,4'-DDE	ug/ml	0.30	0.36	120.0

WESTECH
LABORATORIES, INC.
QUALITY ASSURANCE OFFICER

DATE 3-15-93

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QUALITY CONTROL REPORT

QC IDENTIFIER .....: 30-22493-1
REFERENCE NOTEBOOK : CH-129
REFERENCE PAGE ....: 9

INSTRUMENT : HEWLETT PACKARD GC-5890 DUEL ECD
ANALYZED BY : S.Smith
ANALYZED ON : 02-24-93

REPLICATES -

SAMPLE NUMBER	PARAMETER	UNIT	RESULT	REPLICATE	RPD%
6300391	4,4'-DDD	ug/Kg	<10.	<10.	NC
6300391	4,4'-DDE	ug/Kg	<10.	<10.	NC
6300391	4,4'-DDT	ug/Kg	<10.	<10.	NC
6300391	Aldrin	ug/Kg	<10.	<10.	NC
6300391	alpha-BHC	ug/Kg	<10.	<10.	NC
6300391	beta-BHC	ug/Kg	<10.	<10.	NC
6300391	delta-BHC	ug/Kg	<10.	<10.	NC
6300391	Chlordane	ug/Kg	<150.	<150.	NC
6300391	Dieldrin	ug/Kg	<10.	<10.	NC
6300391	Endosulfan I	ug/Kg	<10.	<10.	NC
6300391	Endosulfan II	ug/Kg	<10.	<10.	NC
6300391	Endosulfan sulfate	ug/Kg	<10.	<10.	NC
6300391	Endrin	ug/Kg	<10.	<10.	NC
6300391	Endrin aldehyde	ug/Kg	<10.	<10.	NC
6300391	Heptachlor	ug/Kg	<10.	<10.	NC
6300391	Hetachlor Epoxide	ug/Kg	<10.	<10.	NC
6300391	Lindane	ug/Kg	<10.	<10.	NC
6300391	Methoxychlor	ug/Kg	<10.	<10.	NC
6300391	Toxaphene	ug/Kg	<250.	<250.	NC
6300391	PCB 1016	ug/Kg	<100.	<100.	NC
6300391	PCB 1221	ug/Kg	<500.	<500.	NC
6300391	PCB 1232	ug/Kg	<100.	<100.	NC
6300391	PCB 1242	ug/Kg	<100.	<100.	NC
6300391	PCB 1248	ug/Kg	<100.	<100.	NC
6300391	PCB 1254	ug/Kg	<100.	<100.	NC
6300391	PCB 1260	ug/Kg	<100.	<100.	NC
6300446	4,4'-DDD	ug/Kg	<10.	<10.	NC
6300446	4,4'-DDE	ug/Kg	<10.	<10.	NC
6300446	4,4'-DDT	ug/Kg	<10.	<10.	NC
6300446	Aldrin	ug/Kg	<10.	<10.	NC
6300446	alpha-BHC	ug/Kg	<10.	<10.	NC
6300446	beta-BHC	ug/Kg	<10.	<10.	NC
6300446	delta-BHC	ug/Kg	<10.	<10.	NC
6300446	Chlordane	ug/Kg	<150.	<150.	NC
6300446	Dieldrin	ug/Kg	<10.	<10.	NC
6300446	Endosulfan I	ug/Kg	<10.	<10.	NC
6300446	Endosulfan II	ug/Kg	<10.	<10.	NC
6300446	Endosulfan sulfate	ug/Kg	<10.	<10.	NC
6300446	Endrin	ug/Kg	<10.	<10.	NC
6300446	Endrin aldehyde	ug/Kg	<10.	<10.	NC

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QUALITY CONTROL REPORT

QC IDENTIFIER .....: 30-22493-1
REFERENCE NOTEBOOK : CH-129
REFERENCE PAGE ....: 9

INSTRUMENT : HEWLETT PACKARD GC-5890 DUEL ECD
ANALYZED BY : S.Smith
ANALYZED ON : 02-24-93

REPLICATES -

SAMPLE NUMBER	PARAMETER	UNIT	RESULT	REPLICATE	RPD%
6300446	Heptachlor	ug/Kg	<10.	<10.	NC
6300446	Hetachlor Epoxide	ug/Kg	<10.	<10.	NC
6300446	Lindane	ug/Kg	<10.	<10.	NC
6300446	Methoxychlor	ug/Kg	<10.	<10.	NC
6300446	Toxaphene	ug/Kg	<250.	<250.	NC
6300446	PCB 1016	ug/Kg	<500.	<500.	NC
6300446	PCB 1221	ug/Kg	<2500.	<2500.	NC
6300446	PCB 1232	ug/Kg	<500.	<500.	NC
6300446	PCB 1242	ug/Kg	<500.	<500.	NC
6300446	PCB 1248	ug/Kg	<500.	<500.	NC
6300446	PCB 1254	ug/Kg	<500.	<500.	NC
6300446	PCB 1260	ug/Kg	<500.	<500.	NC

SPIKES -

SAMPLE NUMBER	PARAMETER	UNIT	SAMPLE RESULT	SPIKE AMOUNT	SAMPLE+SPIKE RESULT	%RECOVERY
6300391	4,4'-DDT	ug/Kg	<10.	0.50	0.48	96.0
6300391	Aldrin	ug/Kg	<10.	0.20	0.17	85.0
6300391	Dieldrin	ug/Kg	<10.	0.50	0.40	80.0
6300391	Lindane	ug/Kg	<10.	0.20	0.18	90.0
6300446	Aldrin	ug/Kg	<10.	0.20	0.20	100.0
6300446	Dieldrin	ug/Kg	<10.	0.50	0.42	84.0
6300446	Lindane	ug/Kg	<10.	0.20	0.21	105.0

METHOD BLANKS -

PARAMETER	UNIT	RESULT
4,4'-DDD	ug/Kg	<10.
4,4'-DDE	ug/Kg	<10.
4,4'-DDT	ug/Kg	<10.
Aldrin	ug/Kg	<10.

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QUALITY CONTROL REPORT

QC IDENTIFIER .....: 30-22493-1
REFERENCE NOTEBOOK : CH-129
REFERENCE PAGE ....: 9

INSTRUMENT : HEWLETT PACKARD GC-5890 DUEL ECD
ANALYZED BY : S.Smith
ANALYZED ON : 02-24-93

METHOD BLANKS -

PARAMETER	UNIT	RESULT
alpha-BHC	ug/Kg	<10.
beta-BHC	ug/Kg	<10.
delta-BHC	ug/Kg	<10.
Chlordane	ug/Kg	<150.
Dieldrin	ug/Kg	<10.
Endosulfan I	ug/Kg	<10.
Endosulfan II	ug/Kg	<10.
Endosulfan sulfate	ug/Kg	<10.
Endrin	ug/Kg	<10.
Endrin aldehyde	ug/Kg	<10.
Heptachlor	ug/Kg	<10.
Hetachlor Epoxide	ug/Kg	<10.
Lindane	ug/Kg	<10.
Methoxychlor	ug/Kg	<10.
Toxaphene	ug/Kg	<250.
PCB 1016	ug/Kg	<100.
PCB 1221	ug/Kg	<500.
PCB 1232	ug/Kg	<100.
PCB 1242	ug/Kg	<100.
PCB 1248	ug/Kg	<100.
PCB 1254	ug/Kg	<100.
PCB 1260	ug/Kg	<100.
4,4'-DDD	ug/Kg	<10.
4,4'-DDE	ug/Kg	<10.
4,4'-DDT	ug/Kg	<10.
Aldrin	ug/Kg	<10.
alpha-BHC	ug/Kg	<10.
beta-BHC	ug/Kg	<10.
delta-BHC	ug/Kg	<10.
Chlordane	ug/Kg	<150.
Dieldrin	ug/Kg	<10.
Endosulfan I	ug/Kg	<10.
Endosulfan II	ug/Kg	<10.
Endosulfan sulfate	ug/Kg	<10.
Endrin	ug/Kg	<10.
Endrin aldehyde	ug/Kg	<10.
Heptachlor	ug/Kg	<10.
Hetachlor Epoxide	ug/Kg	<10.
Lindane	ug/Kg	<10.
Methoxychlor	ug/Kg	<10.
Toxaphene	ug/Kg	<250.
PCB 1016	ug/Kg	<100.

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Las Cruces, NM 88001

SAMPLE NO. : 6300446
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY: SS
PAGE : 1 OF 1

CLIENT SAMPLE ID : 2B
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 72"-80"
ANALYST .....: S. Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-23-93
ANALYSIS DATE .: 03-02-93

Method 8150 - Chlorinated Herbicides

DATA TABLE

Parameter	Result	Unit	Detection Limit
2,4,5-T	<40.	ug/Kg	40.
2,4,5-TP (Silvex)	<40.	ug/Kg	40.
2,4-D	<200.	ug/Kg	200.
2,4-DB	<200.	ug/Kg	200.
Dalapon	<1000.	ug/Kg	1000.
Dicamba	<200.	ug/Kg	200.
Dichlorprop	<200.	ug/Kg	200.
Dinoseb	<200.	ug/Kg	200.
MCPA	<4000.	ug/Kg	4000.
MCPP	<5000.	ug/Kg	5000.

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SAMPLE NO. : 6300446
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 1 OF 2

CLIENT SAMPLE ID : 2B
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 72"-80"
ANALYST .....: I.Hrabovsky

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-26-96
ANALYSIS DATE .: 02-26-93

Method 8260 - Volatile Organics
Appendix IX Compounds

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
Acetone	<100.	ug/Kg	100.
Acrolein	<1000.	ug/Kg	1000.
Acrylonitrile	<1000.	ug/Kg	1000.
Benzene	<50.	ug/Kg	50.
Bromodichloromethane	<100.	ug/Kg	100.
Bromoform	<100.	ug/Kg	100.
Bromomethane	<100.	ug/Kg	100.
Carbon Disulfide	<10.	ug/Kg	10.
Carbon tetrachloride	<50.	ug/Kg	50.
Chlorobenzene	<50.	ug/Kg	50.
Dibromochloromethane	<100.	ug/Kg	100.
Chloroethane	<100.	ug/Kg	100.
Chloroform	<50.	ug/Kg	50.
Chloromethane	<100.	ug/Kg	100.
3-Chloropropene	<100.	ug/Kg	100.
1,2-Dibromo-3-chloropropane	<50.	ug/Kg	50.
1,2Dibromoethane	<100.	ug/Kg	100.
Dibromomethane	<250.	ug/Kg	250.
trans-1,4-Dichloro-2-Butene	<100.	ug/Kg	100.
Dichlorodifluoromethane	<250.	ug/Kg	250.
1,1-Dichloroethane	<50.	ug/Kg	50.
1,2-Dichloroethane	<50.	ug/Kg	50.
1,1-Dichloroethene	<50.	ug/Kg	50.
trans 1,2-Dichloroethene	<50.	ug/Kg	50.
Dichloromethane	<50.	ug/Kg	50.
1,2-Dichloropropane	<50.	ug/Kg	50.
Chloroethylvinyl Ether	<50.	ug/Kg	50.
Cis 1,3-Dichloropropylene	<50.	ug/Kg	50.
1,4-Dioxane	<200.	ug/Kg	200.
Ethylbenzene	<50.	ug/Kg	50.

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SAMPLE NO. : 6300446
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
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PAGE : 2 OF 2

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide ..... :	<500.	ug/Kg	500.
Ethylmethacrylate ..... :	<1000.	ug/Kg	1000.
2-Hexanone ..... :	<100.	ug/Kg	100.
Iodomethane (Methyliodide) ..... :	<100.	ug/Kg	100.
Isobutyl alcohol ..... :	<100.	ug/Kg	100.
Methacrylonitrile ..... :	<500.	ug/Kg	500.
Methyl ethyl ketone ..... :	<100.	ug/Kg	100.
Methyl Methacrylate ..... :	<500.	ug/Kg	500.
Methyl isobutyl ketone ..... :	<100.	ug/Kg	100.
Styrene ..... :	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethene ..... :	<50.	ug/Kg	50.
Toluene ..... :	<50.	ug/Kg	50.
1,1,1-Trichloroethane ..... :	<50.	ug/Kg	50.
1,1,2-Trichloroethane ..... :	<50.	ug/Kg	50.
Trichloroethene ..... :	<50.	ug/Kg	50.
Trichlorofluoromethane ..... :	<100.	ug/Kg	100.
1,2,3-Trichloropropane ..... :	<50.	ug/Kg	50.
Vinyl Acetate ..... :	<1000.	ug/Kg	1000.
Vinyl chloride ..... :	<100.	ug/Kg	100.
Xylenes ..... :	<10.	ug/Kg	10.
1,1,1,2-Tetrachloroethane ..... :	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethane ..... :	<50.	ug/Kg	50.

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SAMPLE NO. : 6300446
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 1 OF 4

CLIENT SAMPLE ID : 2B
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 72"-80"
ANALYST .....: S.Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 03-02-93
ANALYSIS DATE .: 03-04-93

Method 8270 - Semi-Volatile Organics
Appendix IX Compounds

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
2-sec-Butyl-4,6-Dinitrophenol ....:	<200.	ug/Kg	200.
4-Chloro-3-methylphenol .....:	<200.	ug/Kg	200.
2-Chlorophenol .....:	<200.	ug/Kg	200.
2,4-Dichlorophenol .....:	<200.	ug/Kg	200.
2,6 Dichorophenol .....:	<200.	ug/Kg	200.
2,4-Dimethylphenol .....:	<200.	ug/Kg	200.
4,6-Dinitro-2-Methylphenol .....:	<200.	ug/Kg	200.
2,4-Dinitrophenol .....:	<200.	ug/Kg	200.
2-Methylphenol .....:	<200.	ug/Kg	200.
3-Methylphenol .....:	<100.	ug/Kg	100.
4-Methylphenol .....:	<100.	ug/Kg	100.
2-Nitrophenol .....:	<200.	ug/Kg	200.
4-Nitrophenol .....:	<500.	ug/Kg	500.
Pentachlorophenol .....:	<300.	ug/Kg	300.
Phenol .....:	<200.	ug/Kg	200.
2,3,4,6-Tetrachlorophenol .....:	<100.	ug/Kg	100.
2,4,5-Trichlorophenol .....:	<100.	ug/Kg	100.
2,4,6-Trichlorophenol .....:	<100.	ug/Kg	100.
Acenaphthene .....:	<200.	ug/Kg	200.
Acenaphthylene .....:	<200.	ug/Kg	200.
Acetophenone .....:	<660.	ug/Kg	660.
2-Acetylaminofluorene .....:	<200.	ug/Kg	200.
4-Aminobiphenyl .....:	<200.	ug/Kg	200.
Aniline .....:	<500.	ug/Kg	500.
Anthracene .....:	<200.	ug/Kg	200.
Aramite .....:	<1300.	ug/Kg	1300.
Benzo(a)anthracene .....:	<200.	ug/Kg	200.
Benzo(a)pyrene .....:	<200.	ug/Kg	200.
Benzo(b)fluoranthene .....:	<660.	ug/Kg	660.
Benzo(ghi)perylene .....:	<200.	ug/Kg	200.

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INVOICE NO.: 62130107
REPORT DATE: 02-23-93
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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Benzo(K)fluoranthene .....:	<200.	ug/Kg	200.
Benzyl alcohol .....:	<1300.	ug/Kg	1300.
Bis(2-Chloroethoxyl)methane .....:	<200.	ug/Kg	200.
Bis(2-Chloroethyl)ether .....:	<200.	ug/Kg	200.
Bis(2-chloroisopropyl)ether .....:	<200.	ug/Kg	200.
Bis(2-ethylhexyl) phthalate .....:	<200.	ug/Kg	200.
4-Bromophenyl phenyl ether .....:	<100.	ug/Kg	100.
Butyl benzyl phthalate .....:	<200.	ug/Kg	200.
Di-n-butyl phthalate .....:	<100.	ug/Kg	100.
2-Chloro-1,3-Butadiene .....:	<100.	ug/Kg	100.
4-Chloroaniline .....:	<200.	ug/Kg	200.
Chlorobenzilate .....:	<3300.	ug/Kg	3300.
2-Chloronaphthalene .....:	<200.	ug/Kg	200.
4-Chlorophenyl phenyl ether .....:	<200.	ug/Kg	200.
Chrysene .....:	<200.	ug/Kg	200.
Diallate (cis of trans) .....:	<660.	ug/Kg	660.
Dibenzo(a,h)anthracene .....:	<200.	ug/Kg	200.
Dibenzofuran .....:	<660.	ug/Kg	660.
1,2-Dichlorobenzene .....:	<200.	ug/Kg	200.
1,3-Dichlorobenzene .....:	<200.	ug/Kg	200.
1,4-Dichlorobenzene .....:	<200.	ug/Kg	200.
3,3'-Dichlorobenzidine .....:	<300.	ug/Kg	300.
Diethyl Phthalate .....:	<200.	ug/Kg	200.
O,O-Diethyl-O-2-Pyrazinyl .....:	<1000.	ug/Kg	1000.
Phosphorothioate .....:			
Dimethoate .....:	<1300.	ug/Kg	1300.
a,a Dimethylphenethylamine .....:	<1000.	ug/Kg	1000.
Dimethyl phthalate .....:	<200.	ug/Kg	200.
p-Dimethylaminozobenzene .....:	<1000.	ug/Kg	1000.
7,12-Dimethylbenz(a)anthracene ...:	<660.	ug/Kg	660.
3,3'-Dimethylbenzidine .....:	<660.	ug/Kg	660.
M-Dimitrobenzene .....:	<200.	ug/Kg	200.
2,4-Dinitrotoluene .....:	<200.	ug/Kg	200.
2,6-Dinitrotoluene .....:	<200.	ug/Kg	200.
Disulfoton .....:	<660.	ug/Kg	660.
Ethyl Methanesulfonate .....:	<1300.	ug/Kg	1300.
Famphur .....:	<1300.	ug/Kg	1300.
Fluoranthene .....:	<200.	ug/Kg	200.

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SAMPLE NO. : 6300446
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 3 OF 4

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Fluorene	<200.	ug/Kg	200.
Hexachlorobutadiene	<200.	ug/Kg	200.
Hexachlorobenzene	<200.	ug/Kg	200.
Hexachlorocyclopentadiene	<200.	ug/Kg	200.
Hexachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Hexachlorodibenzofurans	<200.	ug/Kg	200.
Hexachloroethane	<200.	ug/Kg	200.
Hexachlorophene	<3300.	ug/Kg	3300.
Hexachloropropene	<660.	ug/Kg	660.
Indo(1,2,3-cd)pyrene	<200.	ug/Kg	200.
Isophorone	<200.	ug/Kg	200.
Isosafrole	<660.	ug/Kg	660.
Kepone	<1300.	ug/Kg	1300.
Methapyrilene	<6600.	ug/Kg	6600.
Methylmethansulfonate	<660.	ug/Kg	660.
3-Methylcholanthrene	<200.	ug/Kg	200.
3-Methylcholanthrene	<200.	ug/Kg	200.
2-Methylnaphthalene	<660.	ug/Kg	660.
Napthalene	<200.	ug/Kg	200.
1,4-Naphthoquinone	<660.	ug/Kg	660.
1-Naphthylamine	<660.	ug/Kg	660.
2-Naphthylamine	<200.	ug/Kg	200.
5-Nitro-o-toluidine	<660.	ug/Kg	660.
2-Nitrophenol	<200.	ug/Kg	200.
3-Nitroaniline	<1000.	ug/Kg	1000.
4-Nitroaniline	<200.	ug/Kg	200.
Nitrobenzene	<200.	ug/Kg	200.
4-Nitroquinoline-1-oxide	<2600.	ug/Kg	2600.
N-Nitrosodibutylamine	<200.	ug/Kg	200.
N-Nitroso-di-n-propylamine	<200.	ug/Kg	200.
N-Nitrosodiethylamine	<200.	ug/Kg	200.
N-Nitroso Dimethyl Amine	<400.	ug/Kg	400.
N-Nitrosodiphenylamine	<200.	ug/Kg	200.
N-Nitrosomethylethylamine	<100.	ug/Kg	100.
N-Nitrosomorpholine	<200.	ug/Kg	200.
N-Nitrosopiperidine	<1000.	ug/Kg	1000.
N-Nitrosopyrrolidine	<2600.	ug/Kg	2600.
Di-n-Octyl Phthalate	<100.	ug/Kg	100.

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SAMPLE NO. : 6300446
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 4 OF 4

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Pentachlorobenzene	<100.	ug/Kg	100.
Pentachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Pentachlorodibenzofurans	<200.	ug/Kg	200.
Pentachloroethane	<100.	ug/Kg	100.
Pentachloronitrobenzene	<1300.	ug/Kg	1300.
Phenacetin	<1300.	ug/Kg	1300.
Phenanthrene	<200.	ug/Kg	200.
Phorate	<660.	ug/Kg	660.
2-Picoline	<500.	ug/Kg	500.
Pronamide	<660.	ug/Kg	660.
Pyrene	<200.	ug/Kg	200.
Pyridine	<1000.	ug/Kg	1000.
Safrole	<660.	ug/Kg	660.
1,2,4,5-Tetrachlorobenzene	<660.	ug/Kg	660.
2,3,7,8-Tetrchlorodibenzo-p-dioxin :	<200.	ug/Kg	200.
Tetrachlorodibenzo-p-dioxins	<200.	ug/Kg	200.
Tetrachlordibenzofurans	<200.	ug/Kg	200.
Tetraethlydithiopyrophosphate	<1000.	ug/Kg	1000.
1,2,4-Trichlorobenzene	<200.	ug/Kg	200.
Methyl parathion	<660.	ug/Kg	660.
Parathion	<660.	ug/Kg	660.
2,4,5-TP (Silvex)	<500.	ug/Kg	500.
2,4,5-T	<500.	ug/Kg	500.

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SAMPLE NO. : 6300447
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY: [illegible]
PAGE : 1 OF 1

CLIENT SAMPLE ID : 1C
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 43"-51"

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: --

Inorganic Non-Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Total(Distillation) .....:	1.8	mg/Kg	0.5	02-19-93
Sulfide,Reactive .....:	<50.	mg/Kg	50.	02-22-93

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555 S. Telshor Ste 310
Las Cruces, NM 88001

SAMPLE NO. : 6300447
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : 1C
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 43"-51"

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: --

Inorganic Chemistry-Total Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Total Antimony .....:	<2.5	mg/Kg	2.5	03-03-93
Total Arsenic .....:	6.0	mg/Kg	2.5	03-03-
Total Barium .....:	82.	mg/Kg	5.0	02-18-93
Total Beryllium .....:	<2.5	mg/Kg	2.5	03-03-93
Total Cadmium .....:	<2.5	mg/Kg	2.5	02-18-93
Total Chromium .....:	<5.0	mg/Kg	5.0	02-18-93
Total Cobalt .....:	2.6 NL	mg/Kg	2.5	03-03-93
Total Copper .....:	15. NL	mg/Kg	2.5	02-19-93
Total Lead .....:	13. NL	mg/Kg	5.0	02-18-93
Total Mercury .....:	<0.5	mg/Kg	0.5	02-24-93
Total Nickel .....:	6.5	mg/Kg	5.0	02-23-93
Total Selenium .....:	<2.5	mg/Kg	2.5	03-03-93
Total Silver .....:	2.5	mg/Kg	2.5	02-19-93
Total Tin .....:	10 NL	mg/Kg	2.5	03-03-93
Total Thallium .....:	<50	mg/Kg	50	02-23-93
Total Vanadium .....:	19	mg/Kg	2.5	03-03-93
Total Zinc .....:	74 NL	mg/Kg	2.5	02-23-93

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INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : 1C
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 43"-51"
ANALYST .....: S.Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-19-93
ANALYSIS DATE .: 02-24-93

Method 8080 - Pesticides & PCB'S

DATA TABLE

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/Kg	10.
4,4'-DDE	<10.	ug/Kg	10.
4,4'-DDT	<10.	ug/Kg	10.
Aldrin	<10.	ug/Kg	10.
alpha-BHC	<10.	ug/Kg	10.
beta-BHC	<10.	ug/Kg	10.
delta-BHC	<10.	ug/Kg	10.
Chlordane	<150.	ug/Kg	150.
Dieldrin	<10.	ug/Kg	10.
Endosulfan I	<10.	ug/Kg	10.
Endosulfan II	<10.	ug/Kg	10.
Endosulfan sulfate	<10.	ug/Kg	10.
Endrin	<10.	ug/Kg	10.
Endrin aldehyde	<10.	ug/Kg	10.
Heptachlor	<10.	ug/Kg	10.
Hetachlor Epoxide	<10.	ug/Kg	10.
Lindane	<10.	ug/Kg	10.
Methoxychlor	<10.	ug/Kg	10.
Toxaphene	<250.	ug/Kg	250.
PCB 1016	<500.	ug/Kg	500.
PCB 1221	<2500.	ug/Kg	2500.
PCB 1232	<500.	ug/Kg	500.
PCB 1242	<500.	ug/Kg	500.
PCB 1248	<500.	ug/Kg	500.
PCB 1254	<500.	ug/Kg	500.
PCB 1260	<500.	ug/Kg	500.

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CLIENT SAMPLE ID : 1C
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 43"-51"
ANALYST .....: S. Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-23-93
ANALYSIS DATE .: 03-02-93

Method 8150 - Chlorinated Herbicides

DATA TABLE

Parameter	Result	Unit	Detection Limit
2,4,5-T	<40.	ug/Kg	40.
2,4,5-TP (Silvex)	<40.	ug/Kg	40.
2,4-D	<200.	ug/Kg	200.
2,4-DB	<200.	ug/Kg	200.
Dalapon	<1000.	ug/Kg	1000.
Dicamba	<200.	ug/Kg	200.
Dichlorprop	<200.	ug/Kg	200.
Dinoseb	<200.	ug/Kg	200.
MCPA	<4000.	ug/Kg	4000.
MCPP	<5000.	ug/Kg	5000.

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CLIENT SAMPLE ID : 1C
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 43"-51"
ANALYST .....: I.Hrabovsky

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-26-93
ANALYSIS DATE .: 02-26-96

Method 8260 - Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
Acetone	<100.	ug/Kg	100.
Acrolein	<1000.	ug/Kg	1000.
Acrylonitrile	<1000.	ug/Kg	1000.
Benzene	<50.	ug/Kg	50.
Bromodichloromethane	<100.	ug/Kg	100.
Bromoform	<100.	ug/Kg	100.
Bromomethane	<100.	ug/Kg	100.
Carbon Disulfide	<10.	ug/Kg	10.
Carbon tetrachloride	<50.	ug/Kg	50.
Chlorobenzene	<50.	ug/Kg	50.
Dibromochloromethane	<100.	ug/Kg	100.
Chloroethane	<100.	ug/Kg	100.
Chloroform	<50.	ug/Kg	50.
Chloromethane	<100.	ug/Kg	100.
3-Chloropropene	<100.	ug/Kg	100.
1,2-Dibromo-3-chloropropane	<50.	ug/Kg	50.
1,2Dibromoethane	<100.	ug/Kg	100.
Dibromomethane	<250.	ug/Kg	250.
trans-1,4-Dichloro-2-Butene	<100.	ug/Kg	100.
Dichlorodifluoromethane	<250.	ug/Kg	250.
1,1-Dichloroethane	<50.	ug/Kg	50.
1,2-Dichloroethane	<50.	ug/Kg	50.
1,1-Dichloroethene	<50.	ug/Kg	50.
trans 1,2-Dichloroethene	<50.	ug/Kg	50.
Dichloromethane	<50.	ug/Kg	50.
1,2-Dichloropropane	<50.	ug/Kg	50.
Chloroethylvinyl Ether	<50.	ug/Kg	50.
Cis 1,3-Dichloropropylene	<50.	ug/Kg	50.
1,4-Dioxane	<200.	ug/Kg	200.
Ethylbenzene	<50.	ug/Kg	50.

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REPORT DATE: 02-23-93
REVIEWED BY: [illegible]
PAGE : 2 OF 2

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide	<500.	ug/Kg	500.
Ethylmethacrylate	<1000.	ug/Kg	1000.
2-Hexanone	<100.	ug/Kg	100.
Iodomethane (Methyliodide)	<100.	ug/Kg	100.
Isobutyl alcohol	<100.	ug/Kg	100.
Methacrylonitrile	<500.	ug/Kg	500.
Methyl ethyl ketone	<100.	ug/Kg	100.
Methyl Methacrylate	<500.	ug/Kg	500.
Methyl isobutyl ketone	<100.	ug/Kg	100.
Styrene	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethene	<50.	ug/Kg	50.
Toluene	<50.	ug/Kg	50.
1,1,1-Trichloroethane	<50.	ug/Kg	50.
1,1,2-Trichloroethane	<50.	ug/Kg	50.
Trichloroethene	<50.	ug/Kg	50.
Trichlorofluoromethane	<100.	ug/Kg	100.
1,2,3-Trichloropropane	<50.	ug/Kg	50.
Vinyl Acetate	<1000.	ug/Kg	1000.
Vinyl chloride	<100.	ug/Kg	100.
Xylenes	<10.	ug/Kg	10.
1,1,1,2-Tetrachloroethane	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethane	<50.	ug/Kg	50.

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SAMPLE SOURCE ...: 43"-51"
ANALYST .....: S.Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 03-02-93
ANALYSIS DATE .: 03-04-93

Method 8270 - Semi-Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
2-sec-Butyl-4,6-Dinitrophenol ....:	<200.	ug/Kg	200.
4-Chloro-3-methylphenol .....:	<200.	ug/Kg	200.
2-Chlorophenol .....:	<200.	ug/Kg	200.
2,4-Dichlorophenol .....:	<200.	ug/Kg	200.
2,6 Dichorophenol .....:	<200.	ug/Kg	200.
2,4-Dimethylphenol .....:	<200.	ug/Kg	200.
4,6-Dinitro-2-Methylphenol .....:	<200.	ug/Kg	200.
2,4-Dinitrophenol .....:	<200.	ug/Kg	200.
2-Methylphenol .....:	<200.	ug/Kg	200.
3-Methylphenol .....:	<100.	ug/Kg	100.
4-Methylphenol .....:	<100.	ug/Kg	100.
2-Nitrophenol .....:	<200.	ug/Kg	200.
4-Nitrophenol .....:	<500.	ug/Kg	500.
Pentachlorophenol .....:	<300.	ug/Kg	300.
Phenol .....:	<200.	ug/Kg	200.
2,3,4,6-Tetrachlorophenol .....:	<100.	ug/Kg	100.
2,4,5-Trichlorophenol .....:	<100.	ug/Kg	100.
2,4,6-Trichlorophenol .....:	<100.	ug/Kg	100.
Acenaphthene .....:	<200.	ug/Kg	200.
Acenaphthylene .....:	<200.	ug/Kg	200.
Acetophenone .....:	<660.	ug/Kg	660.
2-Acetylaminofluorene .....:	<200.	ug/Kg	200.
4-Aminobiphenyl .....:	<200.	ug/L	200.
Aniline .....:	<500.	ug/Kg	500.
Anthracene .....:	<200.	ug/Kg	200.
Aramite .....:	<1300.	ug/Kg	1300.
Benzo(a)anthracene .....:	<200.	ug/Kg	200.
Benzo(a)pyrene .....:	<200.	ug/Kg	200.
Benzo(b)fluoranthene .....:	<660.	ug/Kg	660.
Benzo(ghi)perylene .....:	<200.	ug/Kg	200.

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SAMPLE NO. : 6300447
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Benzo(K)fluoranthene .....:	<200.	ug/Kg	200.
Benzyl alcohol .....:	<1300.	ug/Kg	1300.
Bis(2-Chloroethoxyl)methane .....:	<200.	ug/Kg	200.
Bis(2-Chloroethyl)ether .....:	<200.	ug/Kg	200.
Bis(2-chloroisopropyl)ether .....:	<200.	ug/Kg	200.
Bis(2-ethylhexyl) phthalate .....:	<200.	ug/Kg	200.
4-Bromophenyl phenyl ether .....:	<100.	ug/Kg	100.
Butyl benzyl phthalate .....:	<200.	ug/Kg	200.
Di-n-butyl phthalate .....:	<100.	ug/Kg	100.
2-Chloro-1,3-Butadiene .....:	<100.	ug/Kg	100.
4-Chloroaniline .....:	<200.	ug/Kg	200.
Chlorobenzilate .....:	<3300.	ug/Kg	3300.
2-Chloronaphthalene .....:	<200.	ug/Kg	200.
4-Chlorophenyl phenyl ether .....:	<200.	ug/Kg	200.
Chrysene .....:	<200.	ug/Kg	200.
Diallate (cis of trans) .....:	<660.	ug/Kg	660.
Dibenzo(a,h)anthracene .....:	<200.	ug/Kg	200.
Dibenzofuran .....:	<660.	ug/Kg	660.
1,2-Dichlorobenzene .....:	<200.	ug/Kg	200.
1,3-Dichlorobenzene .....:	<200.	ug/Kg	200.
1,4-Dichlorobenzene .....:	<200.	ug/Kg	200.
3,3'-Dichlorobenzidine .....:	<300.	ug/Kg	300.
Diethyl Phthalate .....:	<200.	ug/Kg	200.
O,O-Diethyl-O-2-Pyrazinyl .....:	<1000.	ug/Kg	1000.
Phosphorothioate .....:			
Dimethoate .....:	<1300.	ug/Kg	1300.
a,a Dimethylphenethylamine .....:	<1000.	ug/Kg	1000.
Dimethyl phthalate .....:	<200.	ug/Kg	200.
p-Dimethylaminozobenzene .....:	<1000.	ug/Kg	1000.
7,12-Dimethylbenz(a)anthracene ...:	<660.	ug/Kg	660.
3,3'-Dimethylbenzidine .....:	<660.	ug/Kg	660.
M-Dimitrobenzene .....:	<200.	ug/Kg	200.
2,4-Dinitrotoluene .....:	<200.	ug/Kg	200.
2,6-Dinitrotoluene .....:	<200.	ug/Kg	200.
Disulfoton .....:	<660.	ug/Kg	660.
Ethyl Methanesulfonate .....:	<1300.	ug/Kg	1300.
Famphur .....:	<1300.	ug/Kg	1300.
Fluoranthene .....:	<200.	ug/Kg	200.

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SAMPLE NO. : 6300447
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REPORT DATE: 02-23-93
REVIEWED BY: [illegible]

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Fluorene	<200.	ug/Kg	200.
Hexachlorobutadiene	<200.	ug/Kg	200.
Hexachlorobenzene	<200.	ug/Kg	200.
Hexachlorocyclopentadiene	<200.	ug/Kg	200.
Hexachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Hexachlorodibenzofurans	<200.	ug/Kg	200.
Hexachloroethane	<200.	ug/Kg	200.
Hexachlorophene	<3300.	ug/Kg	3300.
Hexachloropropene	<660.	ug/Kg	660.
Indo(1,2,3-cd)pyrene	<200.	ug/Kg	200.
Isophorone	<200.	ug/Kg	200.
Isosafrole	<660.	ug/Kg	660.
Kepone	<1300.	ug/Kg	1300.
Methapyrilene	<6600.	ug/Kg	6600.
Methylmethansulfonate	<660.	ug/Kg	660.
3-Methylcholanthrene	<200.	ug/Kg	200.
3-Methylcholanthrene	<200.	ug/Kg	200.
2-Methylnaphthalene	<660.	ug/Kg	660.
Napthalene	<200.	ug/Kg	200.
1,4-Naphthoquinone	<660.	ug/Kg	660.
1-Naphthylamine	<660.	ug/Kg	660.
2-Naphthylamine	<200.	ug/Kg	200.
5-Nitro-o-toluidine	<660.	ug/Kg	660.
2-Nitrophenol	<200.	ug/Kg	200.
3-Nitroaniline	<1000.	ug/Kg	1000.
4-Nitroaniline	<200.	ug/Kg	200.
Nitrobenzene	<200.	ug/Kg	200.
4-Nitroquinoline-1-oxide	<2600.	ug/Kg	2600.
N-Nitrosodibutylamine	<200.	ug/Kg	200.
N-Nitroso-di-n-propylamine	<200.	ug/Kg	200.
N-Nitrosodiethylamine	<200.	ug/Kg	200.
N-Nitroso Dimethyl Amine	<400.	ug/Kg	400.
N-Nitrosodiphenylamine	<200.	ug/Kg	200.
N-Nitrosomethylethylamine	<100.	ug/Kg	100.
N-Nitrosomorpholine	<200.	ug/Kg	200.
N-Nitrosopiperidine	<1000.	ug/Kg	1000.
N-Nitrosopyrrolidine	<2600.	ug/Kg	2600.
Di-n-Octyl Phthalate	<100.	ug/Kg	100.

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INVOICE NO.: 62130107
REPORT DATE: 02-23-93
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D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Pentachlorobenzene .....:	<100.	ug/Kg	100.
Pentachlorodibenzo-p-Dioxins .....:	<200.	ug/Kg	200.
Pentachlorodibenzofurans .....:	<200.	ug/Kg	200.
Pentachloroethane .....:	<100.	ug/Kg	100.
Pentachloronitrobenzene .....:	<1300.	ug/Kg	1300.
Phenacetin .....:	<1300.	ug/Kg	1300.
Phenanthrene .....:	<200.	ug/Kg	200.
Phorate .....:	<660.	ug/Kg	660.
2-Picoline .....:	<500.	ug/Kg	500.
Pronamide .....:	<660.	ug/Kg	660.
Pyrene .....:	<200.	ug/Kg	200.
Pyridine .....:	<1000.	ug/Kg	1000.
Safrole .....:	<660.	ug/Kg	660.
1,2,4,5-Tetrachlorobenzene .....:	<660.	ug/Kg	660.
2,3,7,8-Tetrchlorodibenzo-p-dioxin :	<200.	ug/Kg	200.
Tetrachlorodibenzo-p-dioxins .....:	<200.	ug/Kg	200.
Tetrachlordibenzofurans .....:	<200.	ug/Kg	200.
Tetraethlydithiopyrophosphate ....:	<1000.	ug/Kg	1000.
1,2,4-Trichlorobenzene .....:	<200.	ug/Kg	200.
Methyl parathion .....:	<660.	ug/Kg	660.
Parathion .....:	<660.	ug/Kg	660.
2,4,5-TP (Silvex) .....:	<500.	ug/Kg	500.
2,4,5-T .....:	<500.	ug/Kg	500.

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CLIENT SAMPLE ID : 2C
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 70"-78"

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: --

Inorganic Non-Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Total(Distillation) .....:	<0.5	mg/Kg	0.5	02-19-93
Sulfide,Reactive .....:	<50.	mg/Kg	50.	02-22-93

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AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: --

Inorganic Chemistry-Total Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Total Antimony .....:	<2.5	mg/Kg	2.5	03-03-93
Total Arsenic .....:	7.5	mg/Kg	2.5	03-03-
Total Barium .....:	160.	mg/Kg	5.0	02-18-93
Total Beryllium .....:	<2.5	mg/Kg	2.5	03-03-93
Total Cadmium .....:	<2.5	mg/Kg	2.5	02-18-93
Total Chromium .....:	<5.0	mg/Kg	5.0	02-18-93
Total Cobalt .....:	<2.5	mg/Kg	2.5	03-03-93
Total Copper .....:	<2.5	mg/Kg	2.5	02-19-93
Total Lead .....:	12.	mg/Kg	5.0	02-18-93
Total Mercury .....:	<0.5	mg/Kg	0.5	02-24-93
Total Nickel .....:	<5.0	mg/Kg	5.0	02-23-93
Total Selenium .....:	<2.5	mg/Kg	2.5	03-03-93
Total Silver .....:	2.5	mg/Kg	2.5	02-19-93
Total Tin .....:	8.5 HL	mg/Kg	2.5	03-03-93
Total Thallium .....:	<50	mg/Kg	50	02-23-93
Total Vanadium .....:	5.0	mg/Kg	2.5	03-03-93
Total Zinc .....:	18 HL	mg/Kg	2.5	02-23-93

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SAMPLE NO. : 6300448
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : 2C
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 70"-78"
ANALYST .....: S.Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-19-93
ANALYSIS DATE .: 02-24-93

Method 8080 - Pesticides & PCB'S

DATA TABLE

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/Kg	10.
4,4'-DDE	<10.	ug/Kg	10.
4,4'-DDT	<10.	ug/Kg	10.
Aldrin	<10.	ug/Kg	10.
alpha-BHC	<10.	ug/Kg	10.
beta-BHC	<10.	ug/Kg	10.
delta-BHC	<10.	ug/Kg	10.
Chlordane	<150.	ug/Kg	150.
Dieldrin	<10.	ug/Kg	10.
Endosulfan I	<10.	ug/Kg	10.
Endosulfan II	<10.	ug/Kg	10.
Endosulfan sulfate	<10.	ug/Kg	10.
Endrin	<10.	ug/Kg	10.
Endrin aldehyde	<10.	ug/Kg	10.
Heptachlor	<10.	ug/Kg	10.
Hetachlor Epoxide	<10.	ug/Kg	10.
Lindane	<10.	ug/Kg	10.
Methoxychlor	<10.	ug/Kg	10.
Toxaphene	<250.	ug/Kg	250.
PCB 1016	<500.	ug/Kg	500.
PCB 1221	<2500.	ug/Kg	2500.
PCB 1232	<500.	ug/Kg	500.
PCB 1242	<500.	ug/Kg	500.
PCB 1248	<500.	ug/Kg	500.
PCB 1254	<500.	ug/Kg	500.
PCB 1260	<500.	ug/Kg	500.

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SAMPLE NO. : 6300448
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : 2C
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 70"-78"
ANALYST .....: S. Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-23-93
ANALYSIS DATE .: 03-02-93

Method 8150 - Chlorinated Herbicides

DATA TABLE

Parameter	Result	Unit	Detection Limit
2,4,5-T	<40.	ug/Kg	40.
2,4,5-TP (Silvex)	<40.	ug/Kg	40.
2,4-D	<200.	ug/Kg	200.
2,4-DB	<200.	ug/Kg	200.
Dalapon	<1000.	ug/Kg	1000.
Dicamba	<200.	ug/Kg	200.
Dichlorprop	<200.	ug/Kg	200.
Dinoseb	<200.	ug/Kg	200.
MCPA	<4000.	ug/Kg	4000.
MCPP	<5000.	ug/Kg	5000.

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SAMPLE NO. : 6300448
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY: AM
PAGE : 1 OF 2

CLIENT SAMPLE ID : 2C
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 70"-78"
ANALYST .....: I.Hrabovsky

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-26-93
ANALYSIS DATE .: 02-26-93

Method 8260 - Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
Acetone	<100.	ug/Kg	100.
Acrolein	<1000.	ug/Kg	1000.
Acrylonitrile	<1000.	ug/Kg	1000.
Benzene	<50.	ug/Kg	50.
Bromodichloromethane	<100.	ug/Kg	100.
Bromoform	<100.	ug/Kg	100.
Bromomethane	<100.	ug/Kg	100.
Carbon Disulfide	<10.	ug/Kg	10.
Carbon tetrachloride	<50.	ug/Kg	50.
Chlorobenzene	<50.	ug/Kg	50.
Dibromochloromethane	<100.	ug/Kg	100.
Chloroethane	<100.	ug/Kg	100.
Chloroform	<50.	ug/Kg	50.
Chloromethane	<100.	ug/Kg	100.
3-Chloropropene	<100.	ug/Kg	100.
1,2-Dibromo-3-chloropropane	<50.	ug/Kg	50.
1,2Dibromoethane	<100.	ug/Kg	100.
Dibromomethane	<250.	ug/Kg	250.
trans-1,4-Dichloro-2-Butene	<100.	ug/Kg	100.
Dichlorodifluoromethane	<250.	ug/Kg	250.
1,1-Dichloroethane	<50.	ug/Kg	50.
1,2-Dichloroethane	<50.	ug/Kg	50.
1,1-Dichloroethene	<50.	ug/Kg	50.
trans 1,2-Dichloroethene	<50.	ug/Kg	50.
Dichloromethane	<50.	ug/Kg	50.
1,2-Dichloropropane	<50.	ug/Kg	50.
Chloroethylvinyl Ether	<50.	ug/Kg	50.
Cis 1,3-Dichloropropylene	<50.	ug/Kg	50.
1,4-Dioxane	<200.	ug/Kg	200.
Ethylbenzene	<50.	ug/Kg	50.

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SAMPLE NO. : 6300448
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY: [illegible]

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide	<500.	ug/Kg	500.
Ethylmethacrylate	<1000.	ug/Kg	1000.
2-Hexanone	<100.	ug/Kg	100.
Iodomethane (Methyliodide)	<100.	ug/Kg	100.
Isobutyl alcohol	<100.	ug/Kg	100.
Methacrylonitrile	<500.	ug/Kg	500.
Methyl ethyl ketone	<100.	ug/Kg	100.
Methyl Methacrylate	<500.	ug/Kg	500.
Methyl isobutyl ketone	<100.	ug/Kg	100.
Styrene	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethene	<50.	ug/Kg	50.
Toluene	<50.	ug/Kg	50.
1,1,1-Trichloroethane	<50.	ug/Kg	50.
1,1,2-Trichloroethane	<50.	ug/Kg	50.
Trichloroethene	<50.	ug/Kg	50.
Trichlorofluoromethane	<100.	ug/Kg	100.
1,2,3-Trichloropropane	<50.	ug/Kg	50.
Vinyl Acetate	<1000.	ug/Kg	1000.
Vinyl chloride	<100.	ug/Kg	100.
Xylenes	<10.	ug/Kg	10.
1,1,1,2-Tetrachloroethane	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethane	<50.	ug/Kg	50.

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SAMPLE NO. : 6300448
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY: [illegible]
PAGE : 1 OF 4

CLIENT SAMPLE ID : 2C
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 70"-78"
ANALYST .....: S.Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 03-02-93
ANALYSIS DATE .: 03-04-93

Method 8270 - Semi-Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
2-sec-Butyl-4,6-Dinitrophenol ....:	<200.	ug/Kg	200.
4-Chloro-3-methylphenol .....:	<200.	ug/Kg	200.
2-Chlorophenol .....:	<200.	ug/Kg	200.
2,4-Dichlorophenol .....:	<200.	ug/Kg	200.
2,6 Dichorophenol .....:	<200.	ug/Kg	200.
2,4-Dimethylphenol .....:	<200.	ug/Kg	200.
4,6-Dinitro-2-Methylphenol .....:	<200.	ug/Kg	200.
2,4-Dinitrophenol .....:	<200.	ug/Kg	200.
2-Methylphenol .....:	<200.	ug/Kg	200.
3-Methylphenol .....:	<100.	ug/Kg	100.
4-Methylphenol .....:	<100.	ug/Kg	100.
2-Nitrophenol .....:	<200.	ug/Kg	200.
4-Nitrophenol .....:	<500.	ug/Kg	500.
Pentachlorophenol .....:	<300.	ug/Kg	300.
Phenol .....:	<200.	ug/Kg	200.
2,3,4,6-Tetrachlorophenol .....:	<100.	ug/Kg	100.
2,4,5-Trichlorophenol .....:	<100.	ug/Kg	100.
2,4,6-Trichlorophenol .....:	<100.	ug/Kg	100.
Acenaphthene .....:	<200.	ug/Kg	200.
Acenaphthylene .....:	<200.	ug/Kg	200.
Acetophenone .....:	<660.	ug/Kg	660.
2-Acetylaminofluorene .....:	<200.	ug/Kg	200.
4-Aminobiphenyl .....:	<200.	ug/L	200.
Aniline .....:	<500.	ug/Kg	500.
Anthracene .....:	<200.	ug/Kg	200.
Aramite .....:	<1300.	ug/Kg	1300.
Benzo(a)anthracene .....:	<200.	ug/Kg	200.
Benzo(a)pyrene .....:	<200.	ug/Kg	200.
Benzo(b)fluoranthene .....:	<660.	ug/Kg	660.
Benzo(ghi)perylene .....:	<200.	ug/Kg	200.

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SAMPLE NO. : 6300448
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Benzo(K)fluoranthene	<200.	ug/Kg	200.
Benzyl alcohol	<1300.	ug/Kg	1300.
Bis(2-Chloroethoxyl)methane	<200.	ug/Kg	200.
Bis(2-Chloroethyl)ether	<200.	ug/Kg	200.
Bis(2-chloroisopropyl)ether	<200.	ug/Kg	200.
Bis(2-ethylhexyl) phthalate	<200.	ug/Kg	200.
4-Bromophenyl phenyl ether	<100.	ug/Kg	100.
Butyl benzyl phthalate	<200.	ug/Kg	200.
Di-n-butyl phthalate	<100.	ug/Kg	100.
2-Chloro-1,3-Butadiene	<100.	ug/Kg	100.
4-Chloroaniline	<200.	ug/Kg	200.
Chlorobenzilate	<3300.	ug/Kg	3300.
2-Chloronaphthalene	<200.	ug/Kg	200.
4-Chlorophenyl phenyl ether	<200.	ug/Kg	200.
Chrysene	<200.	ug/Kg	200.
Diallate (cis of trans)	<660.	ug/Kg	660.
Dibenzo(a,h)anthracene	<200.	ug/Kg	200.
Dibenzofuran	<660.	ug/Kg	660.
1,2-Dichlorobenzene	<200.	ug/Kg	200.
1,3-Dichlorobenzene	<200.	ug/Kg	200.
1,4-Dichlorobenzene	<200.	ug/Kg	200.
3,3'-Dichlorobenzidine	<300.	ug/Kg	300.
Diethyl Phthalate	<200.	ug/Kg	200.
O,O-Diethyl-O-2-Pyrazinyl	<1000.	ug/Kg	1000.
Phosphorothioate			
Dimethoate	<1300.	ug/Kg	1300.
a,a Dimethylphenethylamine	<1000.	ug/Kg	1000.
Dimethyl phthalate	<200.	ug/Kg	200.
p-Dimethylaminozobenzene	<1000.	ug/Kg	1000.
7,12-Dimethylbenz(a)anthracene ...	<660.	ug/Kg	660.
3,3'-Dimethylbenzidine	<660.	ug/Kg	660.
M-Dimitrobenzene	<200.	ug/Kg	200.
2,4-Dinitrotoluene	<200.	ug/Kg	200.
2,6-Dinitrotoluene	<200.	ug/Kg	200.
Disulfoton	<660.	ug/Kg	660.
Ethyl Methanesulfonate	<1300.	ug/Kg	1300.
Famphur	<1300.	ug/Kg	1300.
Fluoranthene	<200.	ug/Kg	200.

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SAMPLE NO. : 6300448
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY: [illegible]

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Fluorene	<200.	ug/Kg	200.
Hexachlorobutadiene	<200.	ug/Kg	200.
Hexachlorobenzene	<200.	ug/Kg	200.
Hexachlorocyclopentadiene	<200.	ug/Kg	200.
Hexachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Hexachlorodibenzofurans	<200.	ug/Kg	200.
Hexachloroethane	<200.	ug/Kg	200.
Hexachlorophene	<3300.	ug/Kg	3300.
Hexachloropropene	<660.	ug/Kg	660.
Indo(1,2,3-cd)pyrene	<200.	ug/Kg	200.
Isophorone	<200.	ug/Kg	200.
Isosafrole	<660.	ug/Kg	660.
Kepone	<1300.	ug/Kg	1300.
Methapyrilene	<6600.	ug/Kg	6600.
Methylmethansulfonate	<660.	ug/Kg	660.
3-Methylcholanthrene	<200.	ug/Kg	200.
3-Methylcholanthrene	<200.	ug/Kg	200.
2-Methylnaphthalene	<660.	ug/Kg	660.
Napthalene	<200.	ug/Kg	200.
1,4-Naphthoquinone	<660.	ug/Kg	660.
1-Naphthylamine	<660.	ug/Kg	660.
2-Naphthylamine	<200.	ug/Kg	200.
5-Nitro-o-toluidine	<660.	ug/Kg	660.
2-Nitrophenol	<200.	ug/Kg	200.
3-Nitroaniline	<1000.	ug/Kg	1000.
4-Nitroaniline	<200.	ug/Kg	200.
Nitrobenzene	<200.	ug/Kg	200.
4-Nitroquinoline-1-oxide	<2600.	ug/Kg	2600.
N-Nitrosodibutylamine	<200.	ug/Kg	200.
N-Nitroso-di-n-propylamine	<200.	ug/Kg	200.
N-Nitrosodiethylamine	<200.	ug/Kg	200.
N-Nitroso Dimethyl Amine	<400.	ug/Kg	400.
N-Nitrosodiphenylamine	<200.	ug/Kg	200.
N-Nitrosomethylethylamine	<100.	ug/Kg	100.
N-Nitrosomorpholine	<200.	ug/Kg	200.
N-Nitrosopiperidine	<1000.	ug/Kg	1000.
N-Nitrosopyrrolidine	<2600.	ug/Kg	2600.
Di-n-Octyl Phthalate	<100.	ug/Kg	100.

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Las Cruces, NM 88001

SAMPLE NO. : 6300448
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Pentachlorobenzene	<100.	ug/Kg	100.
Pentachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Pentachlorodibenzofurans	<200.	ug/Kg	200.
Pentachloroethane	<100.	ug/Kg	100.
Pentachloronitrobenzene	<1300.	ug/Kg	1300.
Phenacetin	<1300.	ug/Kg	1300.
Phenanthrene	<200.	ug/Kg	200.
Phorate	<660.	ug/Kg	660.
2-Picoline	<500.	ug/Kg	500.
Pronamide	<660.	ug/Kg	660.
Pyrene	<200.	ug/Kg	200.
Pyridine	<1000.	ug/Kg	1000.
Safrole	<660.	ug/Kg	660.
1,2,4,5-Tetrachlorobenzene	<660.	ug/Kg	660.
2,3,7,8-Tetrchlorodibenzo-p-dioxin :	<200.	ug/Kg	200.
Tetrachlorodibenzo-p-dioxins	<200.	ug/Kg	200.
Tetrachlordibenzofurans	<200.	ug/Kg	200.
Tetraethlydithiopyrophosphate	<1000.	ug/Kg	1000.
1,2,4-Trichlorobenzene	<200.	ug/Kg	200.
Methyl parathion	<660.	ug/Kg	660.
Parathion	<660.	ug/Kg	660.
2,4,5-TP (Silvex)	<500.	ug/Kg	500.
2,4,5-T	<500.	ug/Kg	500.

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El Paso • 10737 Gateway West #100 • TX 79935 • (915) 592-3591 • fax 592-3594

CHAIN OF CUSTODY RECORD

CLIENT	ADDRESS
ASI	555 S. Telshor Blvd. #310 Las Cruces NM 88004
TELEPHONE: 522-7229	PROJECT: Evap Tank / JOB/PO NO:

• REFER TO FEE SCHEDULE FOR ANALYSES SELECTION •

SAMPLER (SIGNATURE): [signature] SAMPLER (PLEASE PRINT): Joel T. Goblin

SAMPLE TYPE CODES: S – SOIL, W – WATER, O – OIL, G – SLUDGE, T – TRAVEL BLANK, F – FIELD BLANK, X – OTHER

CLIENT SAMPLE IDENTIFICATION NUMBER	DATE	TIME	SAMPLE LOCATION	HOLD	COMPOSITE	GRAB	SAMPLE TYPE	NUMBER OF CONTAINERS	REQUESTED ANALYSES (Appendix IX)	COMMENTS	LABORATORY SAMPLE IDENTIFICATION NUMBER
1 A	2/9	9:15	~~Ev~~ 42"-50"			✓		one	✓	Soil	6300443
2 A	2/9	9:25	77"-81"			✓		one	✓	Soil	6300444
1 B	2/9	9:40	35"-42"			✓		one	✓	Soil	6300445
2 B	2/9	1:30	72"-80"			✓		one	✓	Soil	6300446
1 C	2/9	10:15	45"-51"			✓		one	✓	Soil	6300447
2 C	2/9	10:30	70"-78"			✓		one	✓	Soil	6300448

Appendix 9: Cyanide-T Sulfide-R
Metals: Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb
Hg Ni Se Ag Sn, Tl, V, Zn.
8260 - see attached
8270 - see attached
8080
8150

RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	REMARKS
[signature]	George E. Esquivel	2/10/93	8:00 AM	Appendix IX
George Esquivel	B. Thompson	2/11/93	14:30	
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	

White - Testing Laboratory; Yellow - Department Job File; Pink - Client

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Las Cruces, NM 88001

SAMPLE NO. : 6300443
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY: [illegible]
PAGE : 1 OF 1

CLIENT SAMPLE ID : 1A
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 42"-50"

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: --

Inorganic Non-Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Total(Distillation) .....:	1.4 ✓	mg/Kg	0.5	02-19-93
Sulfide,Reactive .....:	<50.	mg/Kg	50.	02-22-9[illegible]

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REVIEWED BY: [illegible]
PAGE : 1 OF 1

CLIENT SAMPLE ID : 1A
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 42"-50"

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: --

Inorganic Chemistry-Total Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Total Antimony	<2.5	mg/Kg	2.5	03-03-93
Total Arsenic	<2.5	mg/Kg	2.5	03-03-93
Total Barium	130. ✓	mg/Kg	5.0	02-18-93
Total Beryllium	<2.5	mg/Kg	2.5	03-03-93
Total Cadmium	<2.5	mg/Kg	2.5	02-18-93
Total Chromium	<5.0	mg/Kg	5.0	02-18-93
Total Cobalt	<2.5	mg/Kg	2.5	03-03-93
Total Copper	3.5 NL	mg/Kg	2.5	02-19-93
Total Lead	15. NL	mg/Kg	5.0	02-18-93
Total Mercury	<0.5	mg/Kg	0.5	02-24-93
Total Nickel	7.0 ✓	mg/Kg	5.0	02-23-93
Total Selenium	<2.5 ✓	mg/Kg	2.5	03-03-93
Total Silver	4.5 ✓	mg/Kg	2.5	02-18-93
Total Tin	3.0 NL	mg/Kg	2.5	03-03-93
Total Thallium	<50	mg/Kg	50	02-23-93
Total Vanadium	15 ✓	mg/Kg	2.5	03-03-93
Total Zinc	25 NL	mg/Kg	2.5	02-23-93

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CLIENT Advanced Sciences Inc.
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Las Cruces, NM 88001

SAMPLE NO. : 6300443
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : 1A
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 42"-50"
ANALYST .....: S.Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-19-93
ANALYSIS DATE .: 02-24-93

Method 8080 - Pesticides & PCB'S

DATA TABLE

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/Kg	10.
4,4'-DDE	<10.	ug/Kg	10.
4,4'-DDT	<10.	ug/Kg	10.
Aldrin	<10.	ug/Kg	10.
alpha-BHC	<10.	ug/Kg	10.
beta-BHC	<10.	ug/Kg	10.
delta-BHC	<10.	ug/Kg	10.
Chlordane	<150.	ug/Kg	150.
Dieldrin	<10.	ug/Kg	10.
Endosulfan I	<10.	ug/Kg	10.
Endosulfan II	<10.	ug/Kg	10.
Endosulfan sulfate	<10.	ug/Kg	10.
Endrin	<10.	ug/Kg	10.
Endrin aldehyde	<10.	ug/Kg	10.
Heptachlor	<10.	ug/Kg	10.
Hetachlor Epoxide	<10.	ug/Kg	10.
Lindane	<10.	ug/Kg	10.
Methoxychlor	<10.	ug/Kg	10.
Toxaphene	<250.	ug/Kg	250.
PCB 1016	<500.	ug/Kg	500.
PCB 1221	<2500.	ug/Kg	2500.
PCB 1232	<500.	ug/Kg	500.
PCB 1242	<500.	ug/Kg	500.
PCB 1248	<500.	ug/Kg	500.
PCB 1254	<500.	ug/Kg	500.
PCB 1260	<500.	ug/Kg	500.

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SAMPLE NO. : 6300443
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY: gb
PAGE : 1 OF 1

CLIENT SAMPLE ID : 1A
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 42"-50"
ANALYST .....: S. Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-23-93
ANALYSIS DATE .: 03-02-93

Method 8150 - Chlorinated Herbicides

DATA TABLE

Parameter	Result	Unit	Detection Limit
4,5-T	<40.	ug/Kg	40.
4,5-TP (Silvex)	<40.	ug/Kg	40.
2,4-D	<200.	ug/Kg	200.
2,4-DB	<200.	ug/Kg	200.
Dalapon	<1000.	ug/Kg	1000.
Dicamba	<200.	ug/Kg	200.
Dichlorprop	<200.	ug/Kg	200.
Dinoseb	<200.	ug/Kg	200.
MCPA	<4000.	ug/Kg	4000.
MCPP	<5000.	ug/Kg	5000.

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SAMPLE NO. : 6300443
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 1 OF 2

CLIENT SAMPLE ID : 1A
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 42"-50"
ANALYST .....: I.Hrabovsky

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-26-93
ANALYSIS DATE .: 02-26-93

Method 8260 - Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
Acetone	<100.	ug/Kg	100.
Acrolein	<1000.	ug/Kg	1000.
Acrylonitrile	<1000.	ug/Kg	1000.
Benzene	<50.	ug/Kg	50.
Bromodichloromethane	<100.	ug/Kg	100.
Bromoform	<100.	ug/Kg	100.
Bromomethane	<100.	ug/Kg	100.
Carbon Disulfide	<10.	ug/Kg	10.
Carbon tetrachloride	<50.	ug/Kg	50.
Chlorobenzene	<50.	ug/Kg	50.
Dibromochloromethane	<100.	ug/Kg	100.
Chloroethane	<100.	ug/Kg	100.
Chloroform	<50.	ug/Kg	50.
Chloromethane	<100.	ug/Kg	100.
3-Chloropropene	<100.	ug/Kg	100.
1,2-Dibromo-3-chloropropane	<50.	ug/Kg	50.
1,2Dibromoethane	<100.	ug/Kg	100.
Dibromomethane	<250.	ug/Kg	250.
trans-1,4-Dichloro-2-Butene	<100.	ug/Kg	100.
Dichlorodifluoromethane	<250.	ug/Kg	250.
1,1-Dichloroethane	<50.	ug/Kg	50.
1,2-Dichloroethane	<50.	ug/Kg	50.
1,1-Dichloroethene	<50.	ug/Kg	50.
trans 1,2-Dichloroethene	<50.	ug/Kg	50.
Dichloromethane	<50.	ug/Kg	50.
1,2-Dichloropropane	<50.	ug/Kg	50.
Chloroethylvinyl Ether	<50.	ug/Kg	50.
Cis 1,3-Dichloropropylene	<50.	ug/Kg	50.
1,4-Dioxane	<200.	ug/Kg	200.
Ethylbenzene	<50.	ug/Kg	50.

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SAMPLE NO. : 6300443
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY: ✓✓✓
PAGE : 2 OF 2

D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide	<500.	ug/Kg	500.
Ethylmethacrylate	<1000.	ug/Kg	1000.
2-Hexanone	<100.	ug/Kg	100.
Iodomethane (Methyliodide)	<100.	ug/Kg	100.
Isobutyl alcohol	<100.	ug/Kg	100.
Methacrylonitrile	<500.	ug/Kg	500.
Methyl ethyl ketone	<100.	ug/Kg	100.
Methyl Methacrylate	<500.	ug/Kg	500.
Methyl isobutyl ketone	<100.	ug/Kg	100.
Styrene	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethene	<50.	ug/Kg	50.
Toluene	<50.	ug/Kg	50.
1,1,1-Trichloroethane	<50.	ug/Kg	50.
1,1,2-Trichloroethane	<50.	ug/Kg	50.
Trichloroethene	<50.	ug/Kg	50.
Trichlorofluoromethane	<100.	ug/Kg	100.
1,2,3-Trichloropropane	<50.	ug/Kg	50.
Vinyl Acetate	<1000.	ug/Kg	1000.
Vinyl chloride	<100.	ug/Kg	100.
Xylenes	<10.	ug/Kg	10.
1,1,1,2-Tetrachloroethane	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethane	<50.	ug/Kg	50.

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REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 1 OF 4

CLIENT SAMPLE ID : 1A
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 42"-50"
ANALYST .....: S.Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 03-02-93
ANALYSIS DATE .: 03-04-93

Method 8270 - Semi-Volatile Organics
Appendix IX Compounds

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
2-sec-Butyl-4,6-Dinitrophenol ....:	<200.	ug/Kg	200.
4-Chloro-3-methylphenol .....:	<200.	ug/Kg	200.
2-Chlorophenol .....:	<200.	ug/Kg	200.
2,4-Dichlorophenol .....:	<200.	ug/Kg	200.
2,6 Dichorophenol .....:	<200.	ug/Kg	200.
2,4-Dimethylphenol .....:	<200.	ug/Kg	200.
4,6-Dinitro-2-Methylphenol .....:	<200.	ug/Kg	200.
2,4-Dinitrophenol .....:	<200.	ug/Kg	200.
2-Methylphenol .....:	<200.	ug/Kg	200.
3-Methylphenol .....:	<100.	ug/Kg	100.
4-Methylphenol .....:	<100.	ug/Kg	100.
2-Nitrophenol .....:	<200.	ug/Kg	200.
4-Nitrophenol .....:	<500.	ug/Kg	500.
Pentachlorophenol .....:	<300.	ug/Kg	300.
Phenol .....:	<200.	ug/Kg	200.
2,3,4,6-Tetrachlorophenol .....:	<100.	ug/Kg	100.
2,4,5-Trichlorophenol .....:	<100.	ug/Kg	100.
2,4,6-Trichlorophenol .....:	<100.	ug/Kg	100.
Acenaphthene .....:	<200.	ug/Kg	200.
Acenaphthylene .....:	<200.	ug/Kg	200.
Acetophenone .....:	<660.	ug/Kg	660.
2-Acetylaminofluorene .....:	<200.	ug/Kg	200.
4-Aminobiphenyl .....:	<200.	ug/Kg	200.
Aniline .....:	<500.	ug/Kg	500.
Anthracene .....:	<200.	ug/Kg	200.
Aramite .....:	<1300.	ug/Kg	1300.
Benzo(a)anthracene .....:	<200.	ug/Kg	200.
Benzo(a)pyrene .....:	<200.	ug/Kg	200.
Benzo(b)fluoranthene .....:	<660.	ug/Kg	660.
Benzo(ghi)perylene .....:	<200.	ug/Kg	200.

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SAMPLE NO. : 6300443
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Benzo(K)fluoranthene .....:	<200.	ug/Kg	200.
Benzyl alcohol .....:	<1300.	ug/Kg	1300.
Bis(2-Chloroethoxyl)methane .....:	<200.	ug/Kg	200.
Bis(2-Chloroethyl)ether .....:	<200.	ug/Kg	200.
Bis(2-chloroisopropyl)ether .....:	<200.	ug/Kg	200.
Bis(2-ethylhexyl) phthalate .....:	<200.	ug/Kg	200.
4-Bromophenyl phenyl ether .....:	<100.	ug/Kg	100.
Butyl benzyl phthalate .....:	<200.	ug/Kg	200.
-n-butyl phthalate .....:	<100.	ug/Kg	100.
-Chloro-1,3-Butadiene .....:	<100.	ug/Kg	100.
4-Chloroaniline .....:	<200.	ug/Kg	200.
Chlorobenzilate .....:	<3300.	ug/Kg	3300.
2-Chloronaphthalene .....:	<200.	ug/Kg	200.
4-Chlorophenyl phenyl ether .....:	<200.	ug/Kg	200.
Chrysene .....:	<200.	ug/Kg	200.
Diallate (cis of trans) .....:	<660.	ug/Kg	660.
Dibenzo(a,h)anthracene .....:	<200.	ug/Kg	200.
Dibenzofuran .....:	<660.	ug/Kg	660.
1,2-Dichlorobenzene .....:	<200.	ug/Kg	200.
1,3-Dichlorobenzene .....:	<200.	ug/Kg	200.
1,4-Dichlorobenzene .....:	<200.	ug/Kg	200.
3,3'-Dichlorobenzidine .....:	<300.	ug/Kg	300.
Diethyl Phthalate .....:	<200.	ug/Kg	200.
O,O-Diethyl-O-2-Pyrazinyl .....:	<1000.	ug/Kg	1000.
Phosphorothioate .....:			
Dimethoate .....:	<1300.	ug/Kg	1300.
a,a Dimethylphenethylamine .....:	<1000.	ug/Kg	1000.
Dimethyl phthalate .....:	<200.	ug/Kg	200.
p-Dimethylaminozobenzene .....:	<1000.	ug/Kg	1000.
7,12-Dimethylbenz(a)anthracene ...:	<660.	ug/Kg	660.
3,3'-Dimethylbenzidine .....:	<660.	ug/Kg	660.
M-Dimitrobenzene .....:	<200.	ug/Kg	200.
2,4-Dinitrotoluene .....:	<200.	ug/Kg	200.
2,6-Dinitrotoluene .....:	<200.	ug/Kg	200.
sulfoton .....:	<660.	ug/Kg	660.
thyl Methanesulfonate .....:	<1300.	ug/Kg	1300.
Famphur .....:	<1300.	ug/Kg	1300.
Fluoranthene .....:	<200.	ug/Kg	200.

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SAMPLE NO. : 6300443
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Fluorene	<200.	ug/Kg	200.
Hexachlorobutadiene	<200.	ug/Kg	200.
Hexachlorobenzene	<200.	ug/Kg	200.
Hexachlorocyclopentadiene	<200.	ug/Kg	200.
Hexachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Hexachlorodibenzofurans	<200.	ug/Kg	200.
Hexachloroethane	<200.	ug/Kg	200.
Hexachlorophene	<3300.	ug/Kg	3300.
Hexachloropropene	<660.	ug/Kg	660.
Indo(1,2,3-cd)pyrene	<200.	ug/Kg	200.
Isophorone	<200.	ug/Kg	200.
Isosafrole	<660.	ug/Kg	660.
Kepone	<1300.	ug/Kg	1300.
Methapyrilene	<6600.	ug/Kg	6600.
Methylmethansulfonate	<660.	ug/Kg	660.
3-Methylcholanthrene	<200.	ug/Kg	200.
3-Methylcholanthrene	<200.	ug/Kg	200.
2-Methylnaphthalene	<660.	ug/Kg	660.
Napthalene	<200.	ug/Kg	200.
1,4-Naphthoquinone	<660.	ug/Kg	660.
1-Naphthylamine	<660.	ug/Kg	660.
2-Naphthylamine	<200.	ug/Kg	200.
5-Nitro-o-toluidine	<660.	ug/Kg	660.
2-Nitrophenol	<200.	ug/Kg	200.
3-Nitroaniline	<1000.	ug/Kg	1000.
4-Nitroaniline	<200.	ug/Kg	200.
Nitrobenzene	<200.	ug/Kg	200.
4-Nitroquinoline-1-oxide	<2600.	ug/Kg	2600.
N-Nitrosodibutylamine	<200.	ug/Kg	200.
N-Nitroso-di-n-propylamine	<200.	ug/Kg	200.
N-Nitrosodiethylamine	<200.	ug/Kg	200.
N-Nitroso Dimethyl Amine	<400.	ug/Kg	400.
N-Nitrosodiphenylamine	<200.	ug/Kg	200.
N-Nitrosomethylethylamine	<100.	ug/Kg	100.
N-Nitrosomorpholine	<200.	ug/Kg	200.
N-Nitrosopiperidine	<1000.	ug/Kg	1000.
N-Nitrosopyrrolidine	<2600.	ug/Kg	2600.
Di-n-Octyl Phthalate	<100.	ug/Kg	100.

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SAMPLE NO. : 6300443
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY: [illegible]
PAGE : 4 OF 4

D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Pentachlorobenzene	<100.	ug/Kg	100.
Pentachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Pentachlorodibenzofurans	<200.	ug/Kg	200.
Pentachloroethane	<100.	ug/Kg	100.
Pentachloronitrobenzene	<1300.	ug/Kg	1300.
Phenacetin	<1300.	ug/Kg	1300.
Phenanthrene	<200.	ug/Kg	200.
Phorate	<660.	ug/Kg	660.
2-Picoline	<500.	ug/Kg	500.
Pronamide	<660.	ug/Kg	660.
Pyrene	<200.	ug/Kg	200.
Pyridine	<1000.	ug/Kg	1000.
Safrole	<660.	ug/Kg	660.
1,2,4,5-Tetrachlorobenzene	<660.	ug/Kg	660.
2,3,7,8-Tetrchlorodibenzo-p-dioxin :	<200.	ug/Kg	200.
Tetrachlorodibenzo-p-dioxins	<200.	ug/Kg	200.
Tetrachlordibenzofurans	<200.	ug/Kg	200.
Tetraethlydithiopyrophosphate	<1000.	ug/Kg	1000.
1,2,4-Trichlorobenzene	<200.	ug/Kg	200.
Methyl parathion	<660.	ug/Kg	660.
Parathion	<660.	ug/Kg	660.
2,4,5-TP (Silvex)	<500.	ug/Kg	500.
2,4,5-T	<500.	ug/Kg	500.

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PAGE : 1 OF 1

CLIENT SAMPLE ID : 2A
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 77"-81"

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: --

Inorganic Non-Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Total(Distillation) .....:	<0.5	mg/Kg	0.5	02-19-93
Sulfide,Reactive .....:	<50.	mg/Kg	50.	02-22-9

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SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 77"-81"

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: --

Inorganic Chemistry-Total Metals

D A T A T A B L E

Parameter	Result	Unit	Detection Limit	Analysis Date
Total Antimony .....:	<2.5	mg/Kg	2.5	03-03-93
Total Arsenic .....:	3.0	mg/Kg	2.5	03-03-93
Total Barium .....:	120.	mg/Kg	5.0	02-18-93
Total Beryllium .....:	<2.5	mg/Kg	2.5	03-03-93
Total Cadmium .....:	<2.5	mg/Kg	2.5	02-18-93
Total Chromium .....:	<5.0	mg/Kg	5.0	02-18-93
Total Cobalt .....:	<2.5	mg/Kg	2.5	03-03-93
Total Copper .....:	<2.5	mg/Kg	2.5	02-19-93
Total Lead .....:	12. NL	mg/Kg	5.0	02-18-93
Total Mercury .....:	<0.5	mg/Kg	0.5	02-24-93
Total Nickel .....:	6.5	mg/Kg	5.0	02-23-93
Total Selenium .....:	<2.5	mg/Kg	2.5	03-03-93
Total Silver .....:	3.0	mg/Kg	2.5	02-19-93
Total Tin .....:	9.2 NL	mg/Kg	2.5	03-03-93
Total Thallium .....:	<50	mg/Kg	50	02-23-93
Total Vanadium .....:	20	mg/Kg	2.5	03-03-93
Total Zinc .....:	13 NL	mg/Kg	2.5	02-23-93

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CLIENT Advanced Sciences Inc.
555 S. Telshor Ste 310
Las Cruces, NM 88001

SAMPLE NO. : 6300444
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : 2A
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 77"-81"
ANALYST .....: S.Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-19-93
ANALYSIS DATE .: 02-24-93

Method 8080 - Pesticides & PCB'S

DATA TABLE

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/Kg	10.
4,4'-DDE	<10.	ug/Kg	10.
4,4'-DDT	<10.	ug/Kg	10.
Aldrin	<10.	ug/Kg	10.
alpha-BHC	<10.	ug/Kg	10.
beta-BHC	<10.	ug/Kg	10.
delta-BHC	<10.	ug/Kg	10.
Chlordane	<150.	ug/Kg	150.
Dieldrin	<10.	ug/Kg	10.
Endosulfan I	<10.	ug/Kg	10.
Endosulfan II	<10.	ug/Kg	10.
Endosulfan sulfate	<10.	ug/Kg	10.
Endrin	<10.	ug/Kg	10.
Endrin aldehyde	<10.	ug/Kg	10.
Heptachlor	<10.	ug/Kg	10.
Hetachlor Epoxide	<10.	ug/Kg	10.
Lindane	<10.	ug/Kg	10.
Methoxychlor	<10.	ug/Kg	10.
Toxaphene	<250.	ug/Kg	250.
PCB 1016	<500.	ug/Kg	500.
PCB 1221	<2500.	ug/Kg	2500.
PCB 1232	<500.	ug/Kg	500.
PCB 1242	<500.	ug/Kg	500.
PCB 1248	<500.	ug/Kg	500.
PCB 1254	<500.	ug/Kg	500.
PCB 1260	<500.	ug/Kg	500.

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CLIENT Advanced Sciences Inc.
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Las Cruces, NM 88001

SAMPLE NO. : 6300444
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY: GB
PAGE : 1 OF 1

CLIENT SAMPLE ID : 2A
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 77"-81"
ANALYST .....: S. Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-23-93
ANALYSIS DATE .: 03-02-93

Method 8150 - Chlorinated Herbicides

DATA TABLE

Parameter	Result	Unit	Detection Limit
2,4,5-T ....:	<40.	ug/Kg	40.
2,4,5-TP (Silvex) ....:	<40.	ug/Kg	40.
2,4-D ....:	<200.	ug/Kg	200.
2,4-DB ....:	<200.	ug/Kg	200.
Dalapon ....:	<1000.	ug/Kg	1000.
Dicamba ....:	<200.	ug/Kg	200.
Dichlorprop ....:	<200.	ug/Kg	200.
Dinoseb ....:	<200.	ug/Kg	200.
MCPA ....:	<4000.	ug/Kg	4000.
MCPP ....:	<5000.	ug/Kg	5000.

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PAGE : 1 OF 2

CLIENT SAMPLE ID : 2A
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 77"-81"
ANALYST .....: I.Hrabovsky

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-26-93
ANALYSIS DATE .: 02-26-93

Method 8260 - Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
Acetone	<100.	ug/Kg	100.
Acrolein	<1000.	ug/Kg	1000.
Acrylonitrile	<1000.	ug/Kg	1000.
Benzene	<50.	ug/Kg	50.
Bromodichloromethane	<100.	ug/Kg	100.
Bromoform	<100.	ug/Kg	100.
Bromomethane	<100.	ug/Kg	100.
Carbon Disulfide	<10.	ug/Kg	10.
Carbon tetrachloride	<50.	ug/Kg	50.
Chlorobenzene	<50.	ug/Kg	50.
Dibromochloromethane	<100.	ug/Kg	100.
Chloroethane	<100.	ug/Kg	100.
Chloroform	<50.	ug/Kg	50.
Chloromethane	<100.	ug/Kg	100.
3-Chloropropene	<100.	ug/Kg	100.
1,2-Dibromo-3-chloropropane	<50.	ug/Kg	50.
1,2Dibromoethane	<100.	ug/Kg	100.
Dibromomethane	<250.	ug/Kg	250.
trans-1,4-Dichloro-2-Butene	<100.	ug/Kg	100.
Dichlorodifluoromethane	<250.	ug/Kg	250.
1,1-Dichloroethane	<50.	ug/Kg	50.
1,2-Dichloroethane	<50.	ug/Kg	50.
1,1-Dichloroethene	<50.	ug/Kg	50.
trans 1,2-Dichloroethene	<50.	ug/Kg	50.
Dichloromethane	<50.	ug/Kg	50.
1,2-Dichloropropane	<50.	ug/Kg	50.
Chloroethylvinyl Ether	<50.	ug/Kg	50.
Cis 1,3-Dichloropropylene	<50.	ug/Kg	50.
1,4-Dioxane	<200.	ug/Kg	200.
Ethylbenzene	<50.	ug/Kg	50.

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SAMPLE NO. : 6300444
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 2 OF 2

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide	<500.	ug/Kg	500.
Ethylmethacrylate	<1000.	ug/Kg	1000.
2-Hexanone	<100.	ug/Kg	100.
Iodomethane (Methyliodide)	<100.	ug/Kg	100.
Isobutyl alcohol	<100.	ug/Kg	100.
Methacrylonitrile	<500.	ug/Kg	500.
Methyl ethyl ketone	<100.	ug/Kg	100.
Methyl Methacrylate	<500.	ug/Kg	500.
Methyl isobutyl ketone	<100.	ug/Kg	100.
Styrene	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethene	<50.	ug/Kg	50.
Toluene	<50.	ug/Kg	50.
1,1,1-Trichloroethane	<50.	ug/Kg	50.
1,1,2-Trichloroethane	<50.	ug/Kg	50.
Trichloroethene	<50.	ug/Kg	50.
Trichlorofluoromethane	<100.	ug/Kg	100.
1,2,3-Trichloropropane	<50.	ug/Kg	50.
Vinyl Acetate	<1000.	ug/Kg	1000.
Vinyl chloride	<100.	ug/Kg	100.
Xylenes	<10.	ug/Kg	10.
1,1,1,2-Tetrachloroethane	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethane	<50.	ug/Kg	50.

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SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 77"-81"
ANALYST .....: S.Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 03-02-93
ANALYSIS DATE .: 03-04-93

Method 8270 - Semi-Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
2-sec-Butyl-4,6-Dinitrophenol ....:	<200.	ug/Kg	200.
4-Chloro-3-methylphenol .....:	<200.	ug/Kg	200.
2-Chlorophenol .....:	<200.	ug/Kg	200.
2,4-Dichlorophenol .....:	<200.	ug/Kg	200.
2,6 Dichorophenol .....:	<200.	ug/Kg	200.
2,4-Dimethylphenol .....:	<200.	ug/Kg	200.
4,6-Dinitro-2-Methylphenol .....:	<200.	ug/Kg	200.
2,4-Dinitrophenol .....:	<200.	ug/Kg	200.
2-Methylphenol .....:	<200.	ug/Kg	200.
3-Methylphenol .....:	<100.	ug/Kg	100.
4-Methylphenol .....:	<100.	ug/Kg	100.
2-Nitrophenol .....:	<200.	ug/Kg	200.
4-Nitrophenol .....:	<500.	ug/Kg	500.
Pentachlorophenol .....:	<300.	ug/Kg	300.
Phenol .....:	<200.	ug/Kg	200.
2,3,4,6-Tetrachlorophenol .....:	<100.	ug/Kg	100.
2,4,5-Trichlorophenol .....:	<100.	ug/Kg	100.
2,4,6-Trichlorophenol .....:	<100.	ug/Kg	100.
Acenaphthene .....:	<200.	ug/Kg	200.
Acenaphthylene .....:	<200.	ug/Kg	200.
Acetophenone .....:	<660.	ug/Kg	660.
2-Acetylaminofluorene .....:	<200.	ug/Kg	200.
4-Aminobiphenyl .....:	<200.	ug/Kg	200.
Aniline .....:	<500.	ug/Kg	500.
Anthracene .....:	<200.	ug/Kg	200.
Aramite .....:	<1300.	ug/Kg	1300.
Benzo(a)anthracene .....:	<200.	ug/Kg	200.
Benzo(a)pyrene .....:	<200.	ug/Kg	200.
Benzo(b)fluoranthene .....:	<660.	ug/Kg	660.
Benzo(ghi)perylene .....:	<200.	ug/Kg	200.

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SAMPLE NO. : 6300444
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Benzo(K)fluoranthene	<200.	ug/Kg	200.
Benzyl alcohol	<1300.	ug/Kg	1300.
Bis(2-Chloroethoxyl)methane	<200.	ug/Kg	200.
Bis(2-Chloroethyl)ether	<200.	ug/Kg	200.
Bis(2-chloroisopropyl)ether	<200.	ug/Kg	200.
Bis(2-ethylhexyl) phthalate	<200.	ug/Kg	200.
4-Bromophenyl phenyl ether	<100.	ug/Kg	100.
Butyl benzyl phthalate	<200.	ug/Kg	200.
Di-n-butyl phthalate	<100.	ug/Kg	100.
-Chloro-1,3-Butadiene	<100.	ug/Kg	100.
4-Chloroaniline	<200.	ug/Kg	200.
Chlorobenzilate	<3300.	ug/Kg	3300.
2-Chloronaphthalene	<200.	ug/Kg	200.
4-Chlorophenyl phenyl ether	<200.	ug/Kg	200.
Chrysene	<200.	ug/Kg	200.
Diallate (cis of trans)	<660.	ug/Kg	660.
Dibenzo(a,h)anthracene	<200.	ug/Kg	200.
Dibenzofuran	<660.	ug/Kg	660.
1,2-Dichlorobenzene	<200.	ug/Kg	200.
1,3-Dichlorobenzene	<200.	ug/Kg	200.
1,4-Dichlorobenzene	<200.	ug/Kg	200.
3,3'-Dichlorobenzidine	<300.	ug/Kg	300.
Diethyl Phthalate	<200.	ug/Kg	200.
O,O-Diethyl-O-2-Pyrazinyl	<1000.	ug/Kg	1000.
Phosphorothioate			
Dimethoate	<1300.	ug/Kg	1300.
a,a Dimethylphenethylamine	<1000.	ug/Kg	1000.
Dimethyl phthalate	<200.	ug/Kg	200.
p-Dimethylaminozobenzene	<1000.	ug/Kg	1000.
7,12-Dimethylbenz(a)anthracene ...	<660.	ug/Kg	660.
3,3'-Dimethylbenzidine	<660.	ug/Kg	660.
M-Dimitrobenzene	<200.	ug/Kg	200.
2,4-Dinitrotoluene	<200.	ug/Kg	200.
2,6-Dinitrotoluene	<200.	ug/Kg	200.
Disulfoton	<660.	ug/Kg	660.
Ethyl Methanesulfonate	<1300.	ug/Kg	1300.
Famphur	<1300.	ug/Kg	1300.
Fluoranthene	<200.	ug/Kg	200.

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SAMPLE NO. : 6300444
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REPORT DATE: 02-23-93
REVIEWED BY:

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Fluorene	<200.	ug/Kg	200.
Hexachlorobutadiene	<200.	ug/Kg	200.
Hexachlorobenzene	<200.	ug/Kg	200.
Hexachlorocyclopentadiene	<200.	ug/Kg	200.
Hexachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Hexachlorodibenzofurans	<200.	ug/Kg	200.
Hexachloroethane	<200.	ug/Kg	200.
Hexachlorophene	<3300.	ug/Kg	3300.
Hexachloropropene	<660.	ug/Kg	660.
Indo(1,2,3-cd)pyrene	<200.	ug/Kg	200.
Isophorone	<200.	ug/Kg	200.
Isosafrole	<660.	ug/Kg	660.
Kepone	<1300.	ug/Kg	1300.
Methapyrilene	<6600.	ug/Kg	6600.
Methylmethansulfonate	<660.	ug/Kg	660.
3-Methylcholanthrene	<200.	ug/Kg	200.
3-Methylcholanthrene	<200.	ug/Kg	200.
2-Methylnaphthalene	<660.	ug/Kg	660.
Napthalene	<200.	ug/Kg	200.
1,4-Naphthoquinone	<660.	ug/Kg	660.
1-Naphthylamine	<660.	ug/Kg	660.
2-Naphthylamine	<200.	ug/Kg	200.
5-Nitro-o-toluidine	<660.	ug/Kg	660.
2-Nitrophenol	<200.	ug/Kg	200.
3-Nitroaniline	<1000.	ug/Kg	1000.
4-Nitroaniline	<200.	ug/Kg	200.
Nitrobenzene	<200.	ug/Kg	200.
4-Nitroquinoline-1-oxide	<2600.	ug/Kg	2600.
N-Nitrosodibutylamine	<200.	ug/Kg	200.
N-Nitroso-di-n-propylamine	<200.	ug/Kg	200.
N-Nitrosodiethylamine	<200.	ug/Kg	200.
N-Nitroso Dimethyl Amine	<400.	ug/Kg	400.
N-Nitrosodiphenylamine	<200.	ug/Kg	200.
N-Nitrosomethylethylamine	<100.	ug/Kg	100.
N-Nitrosomorpholine	<200.	ug/Kg	200.
N-Nitrosopiperidine	<1000.	ug/Kg	1000.
N-Nitrosopyrrolidine	<2600.	ug/Kg	2600.
Di-n-Octyl Phthalate	<100.	ug/Kg	100.

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SAMPLE NO. : 6300444
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PAGE : 4 OF 4

D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Pentachlorobenzene ..... :	<100.	ug/Kg	100.
Pentachlorodibenzo-p-Dioxins ..... :	<200.	ug/Kg	200.
Pentachlorodibenzofurans ..... :	<200.	ug/Kg	200.
Pentachloroethane ..... :	<100.	ug/Kg	100.
Pentachloronitrobenzene ..... :	<1300.	ug/Kg	1300.
Phenacetin ..... :	<1300.	ug/Kg	1300.
Phenanthrene ..... :	<200.	ug/Kg	200.
Phorate ..... :	<660.	ug/Kg	660.
`-Picoline ..... :	<500.	ug/Kg	500.
ronamide ..... :	<660.	ug/Kg	660.
Pyrene ..... :	<200.	ug/Kg	200.
Pyridine ..... :	<1000.	ug/Kg	1000.
Safrole ..... :	<660.	ug/Kg	660.
1,2,4,5-Tetrachlorobenzene ..... :	<660.	ug/Kg	660.
2,3,7,8-Tetrchlorodibenzo-p-dioxin :	<200.	ug/Kg	200.
Tetrachlorodibenzo-p-dioxins ..... :	<200.	ug/Kg	200.
Tetrachlordibenzofurans ..... :	<200.	ug/Kg	200.
Tetraethlydithiopyrophosphate .... :	<1000.	ug/Kg	1000.
1,2,4-Trichlorobenzene ..... :	<200.	ug/Kg	200.
Methyl parathion ..... :	<660.	ug/Kg	660.
Parathion ..... :	<660.	ug/Kg	660.
2,4,5-TP (Silvex) ..... :	<500.	ug/Kg	500.
2,4,5-T ..... :	<500.	ug/Kg	500.

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SAMPLE NO. : 6300445
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : 1B
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 35"-42"

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: --

Inorganic Non-Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Total(Distillation) .....:	<0.5	mg/Kg	0.5	02-19-93
Sulfide,Reactive .....:	<50.	mg/Kg	50.	02-22-93

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SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 35"-42"

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: --

Inorganic Chemistry-Total Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Total Antimony .....:	<2.5	mg/Kg	2.5	03-03-93
Total Arsenic .....:	4.0	mg/Kg	2.5	03-03-93
Total Barium .....:	68.	mg/Kg	5.0	02-18-93
Total Beryllium .....:	<2.5	mg/Kg	2.5	03-03-93
Total Cadmium .....:	<2.5	mg/Kg	2.5	02-18-93
Total Chromium .....:	7.5	mg/Kg	5.0	02-18-93
Total Cobalt .....:	<2.5	mg/Kg	2.5	03-03-93
Total Copper .....:	6.0 NL	mg/Kg	2.5	02-19-93
Total Lead .....:	12. NL	mg/Kg	5.0	02-18-93
Total Mercury .....:	<0.5	mg/Kg	0.5	02-24-93
Total Nickel .....:	7.5	mg/Kg	5.0	02-23-93
Total Selenium .....:	<2.5	mg/Kg	2.5	03-03-93
Total Silver .....:	<2.5	mg/Kg	2.5	02-19-93
Total Tin .....:	9.7 NL	mg/Kg	2.5	03-03-93
Total Thallium .....:	<50	mg/Kg	50	02-23-93
Total Vanadium .....:	18	mg/Kg	2.5	03-03-93
Total Zinc .....:	26 NL	mg/Kg	2.5	02-23-93

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SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 35"-42"
ANALYST .....: S.Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-19-93
ANALYSIS DATE .: 02-24-93

Method 8080 - Pesticides & PCB'S

DATA TABLE

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/Kg	10.
4,4'-DDE	<10.	ug/Kg	10.
4,4'-DDT	<10.	ug/Kg	10.
Aldrin	<10.	ug/Kg	10.
alpha-BHC	<10.	ug/Kg	10.
beta-BHC	<10.	ug/Kg	10.
delta-BHC	<10.	ug/Kg	10.
Chlordane	<150.	ug/Kg	150.
Dieldrin	<10.	ug/Kg	10.
Endosulfan I	<10.	ug/Kg	10.
Endosulfan II	<10.	ug/Kg	10.
Endosulfan sulfate	<10.	ug/Kg	10.
Endrin	<10.	ug/Kg	10.
Endrin aldehyde	<10.	ug/Kg	10.
Heptachlor	<10.	ug/Kg	10.
Hetachlor Epoxide	<10.	ug/Kg	10.
Lindane	<10.	ug/Kg	10.
Methoxychlor	<10.	ug/Kg	10.
Toxaphene	<250.	ug/Kg	250.
PCB 1016	<500.	ug/Kg	500.
PCB 1221	<2500.	ug/Kg	2500.
PCB 1232	<500.	ug/Kg	500.
PCB 1242	<500.	ug/Kg	500.
PCB 1248	<500.	ug/Kg	500.
PCB 1254	<500.	ug/Kg	500.
PCB 1260	<500.	ug/Kg	500.

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CLIENT Advanced Sciences Inc.
555 S. Telshor Ste 310
Las Cruces, NM 88001

SAMPLE NO. : 6300445
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY: cf
PAGE : 1 OF 1

CLIENT SAMPLE ID : 1B
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 35"-42"
ANALYST .....: S. Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-23-93
ANALYSIS DATE .: 03-02-93

Method 8150 - Chlorinated Herbicides

DATA TABLE

Parameter	Result	Unit	Detection Limit
2,4,5-T	<40.	ug/Kg	40.
2,4,5-TP (Silvex)	<40.	ug/Kg	40.
2,4-D	<200.	ug/Kg	200.
2,4-DB	<200.	ug/Kg	200.
Dalapon	<1000.	ug/Kg	1000.
Dicamba	<200.	ug/Kg	200.
Dichlorprop	<200.	ug/Kg	200.
Dinoseb	<200.	ug/Kg	200.
MCPA	<4000.	ug/Kg	4000.
MCPP	<5000.	ug/Kg	5000.

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SAMPLE NO. : 6300445
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 1 OF 2

CLIENT SAMPLE ID : 1B
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 35"-42"
ANALYST .....: I.Hrabovsky

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-26-93
ANALYSIS DATE .: 02-26-93

Method 8260 - Volatile Organics
Appendix IX Compounds

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
Acetone	<100.	ug/Kg	100.
Acrolein	<1000.	ug/Kg	1000.
Acrylonitrile	<1000.	ug/Kg	1000.
Benzene	<50.	ug/Kg	50.
Bromodichloromethane	<100.	ug/Kg	100.
Bromoform	<100.	ug/Kg	100.
Bromomethane	<100.	ug/Kg	100.
Carbon Disulfide	<10.	ug/Kg	10.
Carbon tetrachloride	<50.	ug/Kg	50.
Chlorobenzene	<50.	ug/Kg	50.
Dibromochloromethane	<100.	ug/Kg	100.
Chloroethane	<100.	ug/Kg	100.
Chloroform	<50.	ug/Kg	50.
Chloromethane	<100.	ug/Kg	100.
3-Chloropropene	<100.	ug/Kg	100.
1,2-Dibromo-3-chloropropane	<50.	ug/Kg	50.
1,2Dibromoethane	<100.	ug/Kg	100.
Dibromomethane	<250.	ug/Kg	250.
trans-1,4-Dichloro-2-Butene	<100.	ug/Kg	100.
Dichlorodifluoromethane	<250.	ug/Kg	250.
1,1-Dichloroethane	<50.	ug/Kg	50.
1,2-Dichloroethane	<50.	ug/Kg	50.
1,1-Dichloroethene	<50.	ug/Kg	50.
trans 1,2-Dichloroethene	<50.	ug/Kg	50.
Dichloromethane	<50.	ug/Kg	50.
1,2-Dichloropropane	<50.	ug/Kg	50.
Chloroethylvinyl Ether	<50.	ug/Kg	50.
Cis 1,3-Dichloropropylene	<50.	ug/Kg	50.
1,4-Dioxane	<200.	ug/Kg	200.
Ethylbenzene	<50.	ug/Kg	50.

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SAMPLE NO. : 6300445
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 2 OF 2

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide	<500.	ug/Kg	500.
Ethylmethacrylate	<1000.	ug/Kg	1000.
2-Hexanone	<100.	ug/Kg	100.
Iodomethane (Methyliodide)	<100.	ug/Kg	100.
Isobutyl alcohol	<100.	ug/Kg	100.
Methacrylonitrile	<500.	ug/Kg	500.
Methyl ethyl ketone	<100.	ug/Kg	100.
Methyl Methacrylate	<500.	ug/Kg	500.
ethyl isobutyl ketone	<100.	ug/Kg	100.
cyrene	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethene	<50.	ug/Kg	50.
Toluene	<50.	ug/Kg	50.
1,1,1-Trichloroethane	<50.	ug/Kg	50.
1,1,2-Trichloroethane	<50.	ug/Kg	50.
Trichloroethene	<50.	ug/Kg	50.
Trichlorofluoromethane	<100.	ug/Kg	100.
1,2,3-Trichloropropane	<50.	ug/Kg	50.
Vinyl Acetate	<1000.	ug/Kg	1000.
Vinyl chloride	<100.	ug/Kg	100.
Xylenes	<10.	ug/Kg	10.
1,1,1,2-Tetrachloroethane	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethane	<50.	ug/Kg	50.

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SAMPLE NO. : 6300445
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:

CLIENT SAMPLE ID : 1B
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 35"-42"
ANALYST .....: S.Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 03-02-93
ANALYSIS DATE .: 03-04-93

Method 8270 - Semi-Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
2-sec-Butyl-4,6-Dinitrophenol ....:	<200.	ug/Kg	200.
4-Chloro-3-methylphenol .....:	<200.	ug/Kg	200.
2-Chlorophenol .....:	<200.	ug/Kg	200.
2,4-Dichlorophenol .....:	<200.	ug/Kg	200.
2,6 Dichorophenol .....:	<200.	ug/Kg	200.
2,4-Dimethylphenol .....:	<200.	ug/Kg	200.
4,6-Dinitro-2-Methylphenol .....:	<200.	ug/Kg	200.
2,4-Dinitrophenol .....:	<200.	ug/Kg	200.
2-Methylphenol .....:	<200.	ug/Kg	200.
3-Methylphenol .....:	<100.	ug/Kg	100.
4-Methylphenol .....:	<100.	ug/Kg	100.
2-Nitrophenol .....:	<200.	ug/Kg	200.
4-Nitrophenol .....:	<500.	ug/Kg	500.
Pentachlorophenol .....:	<300.	ug/Kg	300.
Phenol .....:	<200.	ug/Kg	200.
2,3,4,6-Tetrachlorophenol .....:	<100.	ug/Kg	100.
2,4,5-Trichlorophenol .....:	<100.	ug/Kg	100.
2,4,6-Trichlorophenol .....:	<100.	ug/Kg	100.
Acenaphthene .....:	<200.	ug/Kg	200.
Acenaphthylene .....:	<200.	ug/Kg	200.
Acetophenone .....:	<660.	ug/Kg	660.
2-Acetylaminofluorene .....:	<200.	ug/Kg	200.
4-Aminobiphenyl .....:	<200.	ug/Kg	200.
Aniline .....:	<500.	ug/Kg	500.
Anthracene .....:	<200.	ug/Kg	200.
Aramite .....:	<1300.	ug/Kg	1300.
Benzo(a)anthracene .....:	<200.	ug/Kg	200.
Benzo(a)pyrene .....:	<200.	ug/Kg	200.
Benzo(b)fluoranthene .....:	<660.	ug/Kg	660.
Benzo(ghi)perylene .....:	<200.	ug/Kg	200.

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SAMPLE NO. : 6300445
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
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D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Benzo(K)fluoranthene	<200.	ug/Kg	200.
Benzyl alcohol	<1300.	ug/Kg	1300.
Bis(2-Chloroethoxyl)methane	<200.	ug/Kg	200.
Bis(2-Chloroethyl)ether	<200.	ug/Kg	200.
Bis(2-chloroisopropyl)ether	<200.	ug/Kg	200.
Bis(2-ethylhexyl) phthalate	<200.	ug/Kg	200.
4-Bromophenyl phenyl ether	<100.	ug/Kg	100.
Butyl benzyl phthalate	<200.	ug/Kg	200.
Di-n-butyl phthalate	<100.	ug/Kg	100.
-Chloro-1,3-Butadiene	<100.	ug/Kg	100.
4-Chloroaniline	<200.	ug/Kg	200.
Chlorobenzilate	<3300.	ug/Kg	3300.
2-Chloronaphthalene	<200.	ug/Kg	200.
4-Chlorophenyl phenyl ether	<200.	ug/Kg	200.
Chrysene	<200.	ug/Kg	200.
Diallate (cis of trans)	<660.	ug/Kg	660.
Dibenzo(a,h)anthracene	<200.	ug/Kg	200.
Dibenzofuran	<660.	ug/Kg	660.
1,2-Dichlorobenzene	<200.	ug/Kg	200.
1,3-Dichlorobenzene	<200.	ug/Kg	200.
1,4-Dichlorobenzene	<200.	ug/Kg	200.
3,3'-Dichlorobenzidine	<300.	ug/Kg	300.
Diethyl Phthalate	<200.	ug/Kg	200.
O,O-Diethyl-O-2-Pyrazinyl	<1000.	ug/Kg	1000.
Phosphorothioate			
Dimethoate	<1300.	ug/Kg	1300.
a,a Dimethylphenethylamine	<1000.	ug/Kg	1000.
Dimethyl phthalate	<200.	ug/Kg	200.
p-Dimethylaminozobenzene	<1000.	ug/Kg	1000.
7,12-Dimethylbenz(a)anthracene ...	<660.	ug/Kg	660.
3,3'-Dimethylbenzidine	<660.	ug/Kg	660.
M-Dimitrobenzene	<200.	ug/Kg	200.
2,4-Dinitrotoluene	<200.	ug/Kg	200.
2,6-Dinitrotoluene	<200.	ug/Kg	200.
Disulfoton	<660.	ug/Kg	660.
Ethyl Methanesulfonate	<1300.	ug/Kg	1300.
Famphur	<1300.	ug/Kg	1300.
Fluoranthene	<200.	ug/Kg	200.

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SAMPLE NO. : 6300445
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Fluorene	<200.	ug/Kg	200.
Hexachlorobutadiene	<200.	ug/Kg	200.
Hexachlorobenzene	<200.	ug/Kg	200.
Hexachlorocyclopentadiene	<200.	ug/Kg	200.
Hexachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Hexachlorodibenzofurans	<200.	ug/Kg	200.
Hexachloroethane	<200.	ug/Kg	200.
Hexachlorophene	<3300.	ug/Kg	3300.
Hexachloropropene	<660.	ug/Kg	660.
Indo(1,2,3-cd)pyrene	<200.	ug/Kg	200.
Isophorone	<200.	ug/Kg	200.
Isosafrole	<660.	ug/Kg	660.
Kepone	<1300.	ug/Kg	1300.
Methapyrilene	<6600.	ug/Kg	6600.
Methylmethansulfonate	<660.	ug/Kg	660.
3-Methylcholanthrene	<200.	ug/Kg	200.
3-Methylcholanthrene	<200.	ug/Kg	200.
2-Methylnaphthalene	<660.	ug/Kg	660.
Napthalene	<200.	ug/Kg	200.
1,4-Naphthoquinone	<660.	ug/Kg	660.
1-Naphthylamine	<660.	ug/Kg	660.
2-Naphthylamine	<200.	ug/Kg	200.
5-Nitro-o-toluidine	<660.	ug/Kg	660.
2-Nitrophenol	<200.	ug/Kg	200.
3-Nitroaniline	<1000.	ug/Kg	1000.
4-Nitroaniline	<200.	ug/Kg	200.
Nitrobenzene	<200.	ug/Kg	200.
4-Nitroquinoline-1-oxide	<2600.	ug/Kg	2600.
N-Nitrosodibutylamine	<200.	ug/Kg	200.
N-Nitroso-di-n-propylamine	<200.	ug/Kg	200.
N-Nitrosodiethylamine	<200.	ug/Kg	200.
N-Nitroso Dimethyl Amine	<400.	ug/Kg	400.
N-Nitrosodiphenylamine	<200.	ug/Kg	200.
N-Nitrosomethylethylamine	<100.	ug/Kg	100.
N-Nitrosomorpholine	<200.	ug/Kg	200.
N-Nitrosopiperidine	<1000.	ug/Kg	1000.
N-Nitrosopyrrolidine	<2600.	ug/Kg	2600.
Di-n-Octyl Phthalate	<100.	ug/Kg	100.

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SAMPLE NO. : 6300445
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 4 OF 4

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Pentachlorobenzene	<100.	ug/Kg	100.
Pentachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Pentachlorodibenzofurans	<200.	ug/Kg	200.
Pentachloroethane	<100.	ug/Kg	100.
Pentachloronitrobenzene	<1300.	ug/Kg	1300.
Phenacetin	<1300.	ug/Kg	1300.
Phenanthrene	<200.	ug/Kg	200.
Phorate	<660.	ug/Kg	660.
-Picoline	<500.	ug/Kg	500.
ronamide	<660.	ug/Kg	660.
Pyrene	<200.	ug/Kg	200.
Pyridine	<1000.	ug/Kg	1000.
Safrole	<660.	ug/Kg	660.
1,2,4,5-Tetrachlorobenzene	<660.	ug/Kg	660.
2,3,7,8-Tetrchlorodibenzo-p-dioxin :	<200.	ug/Kg	200.
Tetrachlorodibenzo-p-dioxins	<200.	ug/Kg	200.
Tetrachlordibenzofurans	<200.	ug/Kg	200.
Tetraethlydithiopyrophosphate	<1000.	ug/Kg	1000.
1,2,4-Trichlorobenzene	<200.	ug/Kg	200.
Methyl parathion	<660.	ug/Kg	660.
Parathion	<660.	ug/Kg	660.
2,4,5-TP (Silvex)	<500.	ug/Kg	500.
2,4,5-T	<500.	ug/Kg	500.

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SAMPLE NO. : 6300446
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : 2B
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 72"-80"

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: --

Inorganic Non-Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Total(Distillation) .....:	<0.5	mg/Kg	0.5	02-19-93
Sulfide,Reactive .....:	<50.	mg/Kg	50.	02-22-93

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SAMPLE NO. : 6300446
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REPORT DATE: 02-23-93
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PAGE : 1 OF 1

CLIENT SAMPLE ID : 2B
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 72"-80"

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: --

Inorganic Chemistry-Total Metals

D A T A T A B L E

Parameter	Result	Unit	Detection Limit	Analysis Date
Total Antimony .....:	<2.5	mg/Kg	2.5	03-03-93
Total Arsenic .....:	<2.5	mg/Kg	2.5	03-03-93
Total Barium .....:	190.	mg/Kg	5.0	02-18-93
Total Beryllium .....:	<2.5	mg/Kg	2.5	03-03-93
Total Cadmium .....:	<2.5	mg/Kg	2.5	02-18-93
Total Chromium .....:	<5.0	mg/Kg	5.0	02-18-93
Total Cobalt .....:	<2.5	mg/Kg	2.5	03-03-93
Total Copper .....:	<2.5	mg/Kg	2.5	02-19-93
Total Lead .....:	11.	mg/Kg	5.0	02-18-93
Total Mercury .....:	<0.5	mg/Kg	0.5	02-24-93
Total Nickel .....:	<5.0	mg/Kg	5.0	02-23-93
Total Selenium .....:	<2.5	mg/Kg	2.5	03-03-93
Total Silver .....:	<2.5	mg/Kg	2.5	02-19-93
Total Tin .....:	5.0 HL	mg/Kg	2.5	03-03-93
Total Thallium .....:	<50	mg/Kg	50	02-23-93
Total Vanadium .....:	<2.5	mg/Kg	2.5	03-03-93
Total Zinc .....:	4.0 HL	mg/Kg	2.5	02-23-93

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SAMPLE NO. : 6300446
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY: HR
PAGE : 1 OF 1

CLIENT SAMPLE ID : 2B
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 72"-80"
ANALYST .....: S.Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-19-93
ANALYSIS DATE .: 02-24-93

Method 8080 - Pesticides & PCB'S

DATA TABLE

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/Kg	10.
4,4'-DDE	<10.	ug/Kg	10.
4,4'-DDT	<10.	ug/Kg	10.
Aldrin	<10.	ug/Kg	10.
alpha-BHC	<10.	ug/Kg	10.
beta-BHC	<10.	ug/Kg	10.
delta-BHC	<10.	ug/Kg	10.
Chlordane	<150.	ug/Kg	150.
Dieldrin	<10.	ug/Kg	10.
Endosulfan I	<10.	ug/Kg	10.
Endosulfan II	<10.	ug/Kg	10.
Endosulfan sulfate	<10.	ug/Kg	10.
Endrin	<10.	ug/Kg	10.
Endrin aldehyde	<10.	ug/Kg	10.
Heptachlor	<10.	ug/Kg	10.
Hetachlor Epoxide	<10.	ug/Kg	10.
Lindane	<10.	ug/Kg	10.
Methoxychlor	<10.	ug/Kg	10.
Toxaphene	<250.	ug/Kg	250.
PCB 1016	<500.	ug/Kg	500.
PCB 1221	<2500.	ug/Kg	2500.
PCB 1232	<500.	ug/Kg	500.
PCB 1242	<500.	ug/Kg	500.
PCB 1248	<500.	ug/Kg	500.
PCB 1254	<500.	ug/Kg	500.
PCB 1260	<500.	ug/Kg	500.

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SAMPLE NO. : 6202704
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #2 0"- 6"
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-13-92
ANALYSIS DATE .: 10-21-92

Organic TCLP Semi - Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Chlordane	<0.03	mg/L	0.03
Cresol	<200.	mg/L	200.
m-Cresol	<200.	mg/L	200.
p-Cresol	<200.	mg/L	200.
2,4-D	<10.	mg/L	10.
1,4-Dichlorobenzene	<7.5	mg/L	7.5
2,4-Dinitrotoluene	<0.13	mg/L	0.13
Endrin	<0.02	mg/L	0.02
Heptachlor	<0.008	mg/L	0.008
Hexachlorobenzene	<0.13	mg/L	0.13
Hexachloro-1,3-butadiene	<0.5	mg/L	0.5
Hexachloroethane	<3.0	mg/L	3.0
Lindane	<0.4	mg/L	0.4
Methoxychlor	<10.	mg/L	10.
Nitrobenzene	<2.0	mg/L	2.0
Heptachlor epoxide	<0.008	mg/L	0.008
Pentachlorophenol	<100.	mg/L	100.
Pyridine	<5.0	mg/L	5.0
Toxaphene	<0.5	mg/L	0.5
2,4,5-Trichlorophenol	<400.	mg/L	400.
2,4,6-Trichlorophenol	<2.0	mg/L	2.0
2,4,5-TP (Silvex)	<1.0	mg/L	1.0

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SAMPLE NO. : 6202705
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #2 30"-36"
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-20-92
ANALYSIS DATE .: 10-23-92

Organic TCLP Semi - Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Chlordane	<0.03	mg/L	0.03
o-Cresol	<200.	mg/L	200.
m-Cresol	<200.	mg/L	200.
p-Cresol	<200.	mg/L	200.
2,4-D	<10.	mg/L	10.
1,4-Dichlorobenzene	<7.5	mg/L	7.5
2,4-Dinitrotoluene	<0.13	mg/L	0.13
Endrin	<0.02	mg/L	0.02
Heptachlor	<0.008	mg/L	0.008
Hexachlorobenzene	<0.13	mg/L	0.13
Hexachloro-1,3-butadiene	<0.5	mg/L	0.5
Hexachloroethane	<3.0	mg/L	3.0
Lindane	<0.4	mg/L	0.4
Methoxychlor	<10.	mg/L	10.
Nitrobenzene	<2.0	mg/L	2.0
Heptachlor epoxide	<0.008	mg/L	0.008
Pentachlorophenol	<100.	mg/L	100.
Pyridine	<5.0	mg/L	5.0
Toxaphene	<0.5	mg/L	0.5
2,4,5-Trichlorophenol	<400.	mg/L	400.
2,4,6-Trichlorophenol	<2.0	mg/L	2.0
2,4,5-TP (Silvex)	<1.0	mg/L	1.0

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SAMPLE NO. : 6202706
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #3 0"-6"
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-13-92
ANALYSIS DATE .: 10-21-92

Organic TCLP Semi - Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Chlordane	<0.03	mg/L	0.03
Cresol	<200.	mg/L	200.
m-Cresol	<200.	mg/L	200.
p-Cresol	<200.	mg/L	200.
2,4-D	<10.	mg/L	10.
1,4-Dichlorobenzene	<7.5	mg/L	7.5
2,4-Dinitrotoluene	<0.13	mg/L	0.13
Endrin	<0.02	mg/L	0.02
Heptachlor	<0.008	mg/L	0.008
Hexachlorobenzene	<0.13	mg/L	0.13
Hexachloro-1,3-butadiene	<0.5	mg/L	0.5
Hexachloroethane	<3.0	mg/L	3.0
Lindane	<0.4	mg/L	0.4
Methoxychlor	<10.	mg/L	10.
Nitrobenzene	<2.0	mg/L	2.0
Heptachlor epoxide	<0.008	mg/L	0.008
Pentachlorophenol	<100.	mg/L	100.
Pyridine	<5.0	mg/L	5.0
Toxaphene	<0.5	mg/L	0.5
2,4,5-Trichlorophenol	<400.	mg/L	400.
2,4,6-Trichlorophenol	<2.0	mg/L	2.0
2,4,5-TP (Silvex)	<1.0	mg/L	1.0

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SAMPLE NO. : 6202707
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #30"-36"
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-20-92
ANALYSIS DATE .: 10-23-92

Organic TCLP Semi - Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Chlordane	<0.03	mg/L	0.03
o-Cresol	<200.	mg/L	200.
m-Cresol	<200.	mg/L	200.
p-Cresol	<200.	mg/L	200.
2,4-D	<10.	mg/L	10.
1,4-Dichlorobenzene	<7.5	mg/L	7.5
2,4-Dinitrotoluene	<0.13	mg/L	0.13
Endrin	<0.02	mg/L	0.02
Heptachlor	<0.008	mg/L	0.008
Hexachlorobenzene	<0.13	mg/L	0.13
Hexachloro-1,3-butadiene	<0.5	mg/L	0.5
Hexachloroethane	<3.0	mg/L	3.0
Lindane	<0.4	mg/L	0.4
Methoxychlor	<10.	mg/L	10.
Nitrobenzene	<2.0	mg/L	2.0
Heptachlor epoxide	<0.008	mg/L	0.008
Pentachlorophenol	<100.	mg/L	100.
Pyridine	<5.0	mg/L	5.0
Toxaphene	<0.5	mg/L	0.5
2,4,5-Trichlorophenol	<400.	mg/L	400.
2,4,6-Trichlorophenol	<2.0	mg/L	2.0
2,4,5-TP (Silvex)	<1.0	mg/L	1.0

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SAMPLE NO. : 6202708
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Tank Contents #1
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-14-92
ANALYSIS DATE .: 10-21-92

Organic TCLP Semi - Volatiles

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
Chlordane	<0.03	mg/L	0.03
-Cresol	<200.	mg/L	200.
-Cresol	<200.	mg/L	200.
p-Cresol	<200.	mg/L	200.
2,4-D	<10.	mg/L	10.
1,4-Dichlorobenzene	<7.5	mg/L	7.5
2,4-Dinitrotoluene	<0.13	mg/L	0.13
Endrin	<0.02	mg/L	0.02
Heptachlor	<0.008	mg/L	0.008
Hexachlorobenzene	<0.13	mg/L	0.13
Hexachloro-1,3-butadiene	<0.5	mg/L	0.5
Hexachloroethane	<3.0	mg/L	3.0
Lindane	<0.4	mg/L	0.4
Methoxychlor	<10.	mg/L	10.
Nitrobenzene	<2.0	mg/L	2.0
Heptachlor epoxide	<0.008	mg/L	0.008
Pentachlorophenol	<100.	mg/L	100.
Pyridine	<5.0	mg/L	5.0
Toxaphene	<0.5	mg/L	0.5
2,4,5-Trichlorophenol	<400.	mg/L	400.
2,4,6-Trichlorophenol	<2.0	mg/L	2.0
2,4,5-TP (Silvex)	<1.0	mg/L	1.0

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SAMPLE NO. : 6202709
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Tank Contents #2
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-20-92
ANALYSIS DATE .: 10-23-92

Organic TCLP Semi - Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Chlordane	<0.03	mg/L	0.03
o-Cresol	<200.	mg/L	200.
m-Cresol	<200.	mg/L	200.
p-Cresol	<200.	mg/L	200.
2,4-D	<10.	mg/L	10.
1,4-Dichlorobenzene	<7.5	mg/L	7.5
2,4-Dinitrotoluene	<0.13	mg/L	0.13
Endrin	<0.02	mg/L	0.02
Heptachlor	<0.008	mg/L	0.008
Hexachlorobenzene	<0.13	mg/L	0.13
Hexachloro-1,3-butadiene	<0.5	mg/L	0.5
Hexachloroethane	<3.0	mg/L	3.0
Lindane	<0.4	mg/L	0.4
Methoxychlor	<10.	mg/L	10.
Nitrobenzene	<2.0	mg/L	2.0
Heptachlor epoxide	<0.008	mg/L	0.008
Pentachlorophenol	<100.	mg/L	100.
Pyridine	<5.0	mg/L	5.0
Toxaphene	<0.5	mg/L	0.5
2,4,5-Trichlorophenol	<400.	mg/L	400.
2,4,6-Trichlorophenol	<2.0	mg/L	2.0
2,4,5-TP (Silvex)	<1.0	mg/L	1.0

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SAMPLE NO. : 6202710
INVOICE NO.: 62120822
REPORT DATE: 10-28-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Water
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Decon H2O #1
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-13-92
ANALYSIS DATE .: 10-21-92

Organic TCLP Semi - Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Chlordane	<0.03	mg/L	0.03
o-Cresol	<200.	mg/L	200.
m-Cresol	<200.	mg/L	200.
p-Cresol	<200.	mg/L	200.
2,4-D	<10.	mg/L	10.
1,4-Dichlorobenzene	<7.5	mg/L	7.5
2,4-Dinitrotoluene	<0.13	mg/L	0.13
Endrin	<0.02	mg/L	0.02
Heptachlor	<0.008	mg/L	0.008
Hexachlorobenzene	<0.13	mg/L	0.13
Hexachloro-1,3-butadiene	<0.5	mg/L	0.5
Hexachloroethane	<3.0	mg/L	3.0
Lindane	<0.4	mg/L	0.4
Methoxychlor	<10.	mg/L	10.
Nitrobenzene	<2.0	mg/L	2.0
Heptachlor epoxide	<0.008	mg/L	0.008
Pentachlorophenol	<100.	mg/L	100.
Pyridine	<5.0	mg/L	5.0
Toxaphene	<0.5	mg/L	0.5
2,4,5-Trichlorophenol	<400.	mg/L	400.
2,4,6-Trichlorophenol	<2.0	mg/L	2.0
2,4,5-TP (Silvex)	<1.0	mg/L	1.0

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SAMPLE NO. : 6202711
INVOICE NO.: 62120822
REPORT DATE: 10-28-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Water
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Decon H2O #2
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-13-92
ANALYSIS DATE .: 10-21-92

Organic TCLP Semi - Volatiles

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
Chlordane	<0.03	mg/L	0.03
o-Cresol	<200.	mg/L	200.
m-Cresol	<200.	mg/L	200.
p-Cresol	<200.	mg/L	200.
2,4-D	<10.	mg/L	10.
1,4-Dichlorobenzene	<7.5	mg/L	7.5
2,4-Dinitrotoluene	<0.13	mg/L	0.13
Endrin	<0.02	mg/L	0.02
Heptachlor	<0.008	mg/L	0.008
Hexachlorobenzene	<0.13	mg/L	0.13
Hexachloro-1,3-butadiene	<0.5	mg/L	0.5
Hexachloroethane	<3.0	mg/L	3.0
Lindane	<0.4	mg/L	0.4
Methoxychlor	<10.	mg/L	10.
Nitrobenzene	<2.0	mg/L	2.0
Heptachlor epoxide	<0.008	mg/L	0.008
Pentachlorophenol	<100.	mg/L	100.
Pyridine	<5.0	mg/L	5.0
Toxaphene	<0.5	mg/L	0.5
2,4,5-Trichlorophenol	<400.	mg/L	400.
2,4,6-Trichlorophenol	<2.0	mg/L	2.0
2,4,5-TP (Silvex)	<1.0	mg/L	1.0

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SAMPLE NO. : 6202702
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY: SB
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #1 0"-6"
ANALYST .....: S. Smith

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-16-92
ANALYSIS DATE .: 10-20-92

Method 8080 - Pesticides & PCB'S

DATA TABLE

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/Kg	10.
,4'-DDE	<10.	ug/Kg	10.
,4'-DDT	<10.	ug/Kg	10.
Aldrin	<10.	ug/Kg	10.
alpha-BHC	<10.	ug/Kg	10.
beta-BHC	<10.	ug/Kg	10.
delta-BHC	<10.	ug/Kg	10.
Chlordane	<150.	ug/Kg	150.
Dieldrin	<10.	ug/Kg	10.
Endosulfan I	<10.	ug/Kg	10.
Endosulfan II	<10.	ug/Kg	10.
Endosulfan sulfate	<10.	ug/Kg	10.
Endrin	<10.	ug/Kg	10.
Endrin aldehyde	<10.	ug/Kg	10.
Heptachlor	<10.	ug/Kg	10.
Hetachlor Epoxide	<10.	ug/Kg	10.
Hexachlorobenzene	<25.	ug/Kg	25.
Lindane	<10.	ug/Kg	10.
Methoxychlor	<10.	ug/Kg	10.
Toxaphene	<250.	ug/Kg	250.
PCB 1016	<100.	ug/Kg	100.
PCB 1221	<5000.	ug/Kg	5000.
PCB 1232	<100.	ug/Kg	100.
PCB 1242	<100.	ug/Kg	100.
PCB 1248	<100.	ug/Kg	100.
PCB 1254	<100.	ug/Kg	100.
PCB 1260	<100.	ug/Kg	100.

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SAMPLE NO. : 6202703
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY: CJS
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #1 30"-36"
ANALYST .....: S. Smith

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-16-92
ANALYSIS DATE .: 10-20-92

Method 8080 - Pesticides & PCB'S

DATA TABLE

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/Kg	10.
4,4'-DDE	<10.	ug/Kg	10.
4,4'-DDT	<10.	ug/Kg	10.
Aldrin	<10.	ug/Kg	10.
alpha-BHC	<10.	ug/Kg	10.
beta-BHC	<10.	ug/Kg	10.
delta-BHC	<10.	ug/Kg	10.
Chlordane	<150.	ug/Kg	150.
Dieldrin	<10.	ug/Kg	10.
Endosulfan I	<10.	ug/Kg	10.
Endosulfan II	<10.	ug/Kg	10.
Endosulfan sulfate	<10.	ug/Kg	10.
Endrin	<10.	ug/Kg	10.
Endrin aldehyde	<10.	ug/Kg	10.
Heptachlor	<10.	ug/Kg	10.
Hetachlor Epoxide	<10.	ug/Kg	10.
Hexachlorobenzene	<25.	ug/Kg	25.
Lindane	<10.	ug/Kg	10.
Methoxychlor	<10.	ug/Kg	10.
Toxaphene	<250.	ug/Kg	250.
PCB 1016	<100.	ug/Kg	100.
PCB 1221	<5000.	ug/Kg	5000.
PCB 1232	<100.	ug/Kg	100.
PCB 1242	<100.	ug/Kg	100.
PCB 1248	<100.	ug/Kg	100.
PCB 1254	<100.	ug/Kg	100.
PCB 1260	<100.	ug/Kg	100.

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SAMPLE NO. : 6202704
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY: CJG
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #2 0"- 6"
ANALYST .....: S. Smith

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-16-92
ANALYSIS DATE .: 10-20-92

Method 8080 - Pesticides & PCB'S

DATA TABLE

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/Kg	10.
,4'-DDE	<10.	ug/Kg	10.
,4'-DDT	<10.	ug/Kg	10.
Aldrin	<10.	ug/Kg	10.
alpha-BHC	<10.	ug/Kg	10.
beta-BHC	<10.	ug/Kg	10.
delta-BHC	<10.	ug/Kg	10.
Chlordane	<150.	ug/Kg	150.
Dieldrin	<10.	ug/Kg	10.
Endosulfan I	<10.	ug/Kg	10.
Endosulfan II	<10.	ug/Kg	10.
Endosulfan sulfate	<10.	ug/Kg	10.
Endrin	<10.	ug/Kg	10.
Endrin aldehyde	<10.	ug/Kg	10.
Heptachlor	<10.	ug/Kg	10.
Hetachlor Epoxide	<10.	ug/Kg	10.
Hexachlorobenzene	<25.	ug/Kg	25.
Lindane	<10.	ug/Kg	10.
Methoxychlor	<10.	ug/Kg	10.
Toxaphene	<250.	ug/Kg	250.
PCB 1016	<100.	ug/Kg	100.
PCB 1221	<5000.	ug/Kg	5000.
PCB 1232	<100.	ug/Kg	100.
PCB 1242	<100.	ug/Kg	100.
PCB 1248	<100.	ug/Kg	100.
PCB 1254	<100.	ug/Kg	100.
PCB 1260	<100.	ug/Kg	100.

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Las Cruces, NM 88001

SAMPLE NO. : 6202705
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #2 30"-36"
ANALYST .....: S. Smith

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-16-92
ANALYSIS DATE .: 10-20-92

Method 8080 - Pesticides & PCB'S

DATA TABLE

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/Kg	10.
4,4'-DDE	<10.	ug/Kg	10.
4,4'-DDT	<10.	ug/Kg	10.
Aldrin	<10.	ug/Kg	10.
alpha-BHC	<10.	ug/Kg	10.
beta-BHC	<10.	ug/Kg	10.
delta-BHC	<10.	ug/Kg	10.
Chlordane	<150.	ug/Kg	150.
Dieldrin	<10.	ug/Kg	10.
Endosulfan I	<10.	ug/Kg	10.
Endosulfan II	<10.	ug/Kg	10.
Endosulfan sulfate	<10.	ug/Kg	10.
Endrin	<10.	ug/Kg	10.
Endrin aldehyde	<10.	ug/Kg	10.
Heptachlor	<10.	ug/Kg	10.
Hetachlor Epoxide	<10.	ug/Kg	10.
Hexachlorobenzene	<25.	ug/Kg	25.
Lindane	<10.	ug/Kg	10.
Methoxychlor	<10.	ug/Kg	10.
Toxaphene	<250.	ug/Kg	250.
PCB 1016	<100.	ug/Kg	100.
PCB 1221	<5000.	ug/Kg	5000.
PCB 1232	<100.	ug/Kg	100.
PCB 1242	<100.	ug/Kg	100.
PCB 1248	<100.	ug/Kg	100.
PCB 1254	<100.	ug/Kg	100.
PCB 1260	<100.	ug/Kg	100.

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Managing Director

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10737 Gateway West, No. 100
El Paso, Texas 79935
(915) 592-3591 • fax 592-3594

CLIENT Advanced Sciences Inc.
555 S. Telshor Ste 310
Las Cruces, NM 88001

SAMPLE NO. : 6202706
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY: [illegible]
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #3 0"-6"
ANALYST .....: S. Smith

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-16-92
ANALYSIS DATE .: 10-20-92

Method 8080 - Pesticides & PCB'S

DATA TABLE

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/Kg	10.
4'-DDE	<10.	ug/Kg	10.
,4'-DDT	<10.	ug/Kg	10.
Aldrin	<10.	ug/Kg	10.
alpha-BHC	<10.	ug/Kg	10.
beta-BHC	<10.	ug/Kg	10.
delta-BHC	<10.	ug/Kg	10.
Chlordane	<150.	ug/Kg	150.
Dieldrin	<10.	ug/Kg	10.
Endosulfan I	<10.	ug/Kg	10.
Endosulfan II	<10.	ug/Kg	10.
Endosulfan sulfate	<10.	ug/Kg	10.
Endrin	<10.	ug/Kg	10.
Endrin aldehyde	<10.	ug/Kg	10.
Heptachlor	<10.	ug/Kg	10.
Hetachlor Epoxide	<10.	ug/Kg	10.
Hexachlorobenzene	<25.	ug/Kg	25.
Lindane	<10.	ug/Kg	10.
Methoxychlor	<10.	ug/Kg	10.
Toxaphene	<250.	ug/Kg	250.
PCB 1016	<100.	ug/Kg	100.
PCB 1221	<5000.	ug/Kg	5000.
PCB 1232	<100.	ug/Kg	100.
PCB 1242	<100.	ug/Kg	100.
PCB 1248	<100.	ug/Kg	100.
PCB 1254	<100.	ug/Kg	100.
PCB 1260	<100.	ug/Kg	100.

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SAMPLE NO. : 6202707
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #30"-36"
ANALYST .....: S. Smith

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-16-92
ANALYSIS DATE .: 10-20-92

Method 8080 - Pesticides & PCB'S

DATA TABLE

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/Kg	10.
4,4'-DDE	<10.	ug/Kg	10.
4,4'-DDT	<10.	ug/Kg	10.
Aldrin	<10.	ug/Kg	10.
alpha-BHC	<10.	ug/Kg	10.
beta-BHC	<10.	ug/Kg	10.
delta-BHC	<10.	ug/Kg	10.
Chlordane	<150.	ug/Kg	150.
Dieldrin	<10.	ug/Kg	10.
Endosulfan I	<10.	ug/Kg	10.
Endosulfan II	<10.	ug/Kg	10.
Endosulfan sulfate	<10.	ug/Kg	10.
Endrin	<10.	ug/Kg	10.
Endrin aldehyde	<10.	ug/Kg	10.
Heptachlor	<10.	ug/Kg	10.
Hetachlor Epoxide	<10.	ug/Kg	10.
Hexachlorobenzene	<25.	ug/Kg	25.
Lindane	<10.	ug/Kg	10.
Methoxychlor	<10.	ug/Kg	10.
Toxaphene	<250.	ug/Kg	250.
PCB 1016	<100.	ug/Kg	100.
PCB 1221	<5000.	ug/Kg	5000.
PCB 1232	<100.	ug/Kg	100.
PCB 1242	<100.	ug/Kg	100.
PCB 1248	<100.	ug/Kg	100.
PCB 1254	<100.	ug/Kg	100.
PCB 1260	<100.	ug/Kg	100.

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CLIENT Advanced Sciences Inc.
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Las Cruces, NM 88001

SAMPLE NO. : 6202708
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Tank Contents #1
ANALYST .....: S. Smith

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-16-92
ANALYSIS DATE .: 10-20-92

Method 8080 - Pesticides & PCB'S

DATA TABLE

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/Kg	10.
4'-DDE	<10.	ug/Kg	10.
,4'-DDT	<10.	ug/Kg	10.
Aldrin	<10.	ug/Kg	10.
alpha-BHC	<10.	ug/Kg	10.
beta-BHC	<10.	ug/Kg	10.
delta-BHC	<10.	ug/Kg	10.
Chlordane	<150.	ug/Kg	150.
Dieldrin	<10.	ug/Kg	10.
Endosulfan I	<10.	ug/Kg	10.
Endosulfan II	<10.	ug/Kg	10.
Endosulfan sulfate	<10.	ug/Kg	10.
Endrin	<10.	ug/Kg	10.
Endrin aldehyde	<10.	ug/Kg	10.
Heptachlor	<10.	ug/Kg	10.
Hetachlor Epoxide	<10.	ug/Kg	10.
Hexachlorobenzene	<25.	ug/Kg	25.
Lindane	<10.	ug/Kg	10.
Methoxychlor	<10.	ug/Kg	10.
Toxaphene	<250.	ug/Kg	250.
PCB 1016	<100.	ug/Kg	100.
PCB 1221	<5000.	ug/Kg	5000.
PCB 1232	<100.	ug/Kg	100.
PCB 1242	<100.	ug/Kg	100.
PCB 1248	<100.	ug/Kg	100.
PCB 1254	<100.	ug/Kg	100.
PCB 1260	1500.	ug/Kg	100.

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SAMPLE NO. : 6202709
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY: CJ
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Tank Contents #2
ANALYST .....: S. Smith

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-16-92
ANALYSIS DATE .: 10-20-92

Method 8080 - Pesticides & PCB'S

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/Kg	10.
4,4'-DDE	<10.	ug/Kg	10.
4,4'-DDT	<10.	ug/Kg	10.
Aldrin	<10.	ug/Kg	10.
alpha-BHC	<10.	ug/Kg	10.
beta-BHC	<10.	ug/Kg	10.
delta-BHC	<10.	ug/Kg	10.
Chlordane	<150.	ug/Kg	150.
Dieldrin	<10.	ug/Kg	10.
Endosulfan I	<10.	ug/Kg	10.
Endosulfan II	<10.	ug/Kg	10.
Endosulfan sulfate	<10.	ug/Kg	10.
Endrin	<10.	ug/Kg	10.
Endrin aldehyde	<10.	ug/Kg	10.
Heptachlor	<10.	ug/Kg	10.
Hetachlor Epoxide	<10.	ug/Kg	10.
Hexachlorobenzene	<25.	ug/Kg	25.
Lindane	<10.	ug/Kg	10.
Methoxychlor	<10.	ug/Kg	10.
Toxaphene	<250.	ug/Kg	250.
PCB 1016	<100.	ug/Kg	100.
PCB 1221	<5000.	ug/Kg	5000.
PCB 1232	<100.	ug/Kg	100.
PCB 1242	<100.	ug/Kg	100.
PCB 1248	<100.	ug/Kg	100.
PCB 1254	<100.	ug/Kg	100.
PCB 1260	920.	ug/Kg	100.

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SAMPLE NO. : 6202710
INVOICE NO.: 62120822
REPORT DATE: 10-28-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Water
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Decon H2O #1
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-13-92
ANALYSIS DATE .: 10-21-92

Method 8080 - TCLP Pesticides & PCB's

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/L	2.0
4'-DDE	<10.	ug/L	2.0
4,4'-DDT	<10.	ug/L	10.
Aldrin	<10.	ug/L	10.
alpha-BHC	<10.	ug/L	10.
beta-BHC	<10.	ug/L	10.
delta-BHC	<10.	ug/L	10.
Chlordane	<10.	ug/L	10.
Dieldrin	<10.	ug/L	10.
Endosulfan I	<10.	ug/L	10.
Endosulfan II	<20.	ug/L	20.
Endosulfan sulfate	<20.	ug/L	20.
Endrin	<10.	ug/L	10.
Endrin aldehyde	<10.	ug/L	10.
Heptachlor	<10.	ug/L	10.
Hetachlor Epoxide	<10.	ug/L	10.
Lindane (gamma-BHC)	<10.	ug/L	10.
Methoxychlor	<25.	ug/L	25.
Toxaphene	<100.	ug/L	100.
PCB 1016	<100.	ug/L	100.
PCB 1221	<100.	ug/L	100.
PCB 1232	<100.	ug/L	100.
PCB 1242	<100.	ug/L	100.
PCB 1248	<100.	ug/L	100.
PCB 1254	<100.	ug/L	100.
PCB 1260	<100.	ug/L	100.

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Las Cruces, NM 88001

SAMPLE NO. : 6202711
INVOICE NO.: 62120822
REPORT DATE: 10-28-92
REVIEWED BY: [illegible]
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Water
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Decon H2O #2
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-13-92
ANALYSIS DATE .: 10-21-92

Method 8080 - TCLP Pesticides & PCB's

DATA TABLE

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/L	10.
4,4'-DDE	<10.	ug/L	10.
4,4'-DDT	<10.	ug/L	10.
Aldrin	<10.	ug/L	10.
alpha-BHC	<10.	ug/L	10.
beta-BHC	<10.	ug/L	10.
delta-BHC	<10.	ug/L	10.
Chlordane	<10.	ug/L	10.
Dieldrin	<10.	ug/L	10.
Endosulfan I	<10.	ug/L	10.
Endosulfan II	<20.	ug/L	20.
Endosulfan sulfate	<20.	ug/L	20.
Endrin	<10.	ug/L	10.
Endrin aldehyde	<10.	ug/L	10.
Heptachlor	<10.	ug/L	10.
Hetachlor Epoxide	<10.	ug/L	10.
Lindane (gamma BHC)	<10.	ug/L	10.
Methoxychlor	<25.	ug/L	25.
Toxaphene	<100.	ug/L	100.
PCB 1016	<100.	ug/L	100.
PCB 1221	<100.	ug/L	100.
PCB 1232	<100.	ug/L	100.
PCB 1242	<100.	ug/L	100.
PCB 1248	<100.	ug/L	100.
PCB 1254	<100.	ug/L	100.
PCB 1260	<100.	ug/L	100.

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Flagstaff • 2400 E. Huntington Dr. • AZ 86004 • (602) 774-8708 • fax 774-6469
El Paso • 10737 Gateway West #100 • TX 79935 • (915) 592-3591 • fax 592-3594

CHAIN OF CUSTODY RECORD

CLIENT	ADDRESS
ASI	555 Telshor Suite 310
	Las Cruces NM 88001
TELEPHONE: (505) 522-7229	PROJECT: 9967.40.09
	JOB/P.O. NO.

• REFER TO FEE SCHEDULE FOR ANALYSES SELECTION •

SAMPLER (SIGNATURE): [signature]

SAMPLER (PLEASE PRINT): TONY M. TAYLER

REQUESTED ANALYSES: TVHP - VOLS ✓; TEHP - SEMI-VOL ✓; TEHP - METALS; TEHP - Sub-Vol ✓; [illegible]

SAMPLE TYPE CODES: S – SOIL; W – WATER; O – OIL; G – SLUDGE; T – TRAVEL BLANK; F – FIELD BLANK; X – OTHER

CLIENT SAMPLE IDENTIFICATION NUMBER	DATE	TIME	SAMPLE LOCATION	HOLD	COMPOSITE	GRAB	SAMPLE TYPE	NUMBER OF CONTAINERS	TVHP - VOLS	TEHP - SEMI-VOL	TEHP - METALS	TEHP - Sub-Vol	[illegible]	COMMENTS	LABORATORY SAMPLE IDENTIFICATION NUMBER
ASI - EVAP TANK	12/9/92	10:10am	SITE #1 0'-6"				S	1				✓			
		10:20am	" 30"-36"				S	1							
		11:10am	SITE #2 0'-1"				S	1							
		11:35am	30"-36"				S	1							
		12:05pm	SITE #3 0"-1"				S	1							
		12:15pm	30"-36"				S	1							
		1:20pm	TANK CONTENTS #1				S	1							
		1:30pm	TANK CONTENTS #2				S	1							
		1:40pm	DECON H_2O #1				W	1							
TB		1:50pm	DECON H_2O #2				W	1							

RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	REMARKS
[signature] 12/9/92	[signature]	12/9/92	1505	
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	Do not run volatiles on water
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	

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Flagstaff • 2400 E. Huntington Dr. • AZ 86004 • (602) 774-8708 • fax 774-6469
El Paso • 10737 Gateway West #100 • TX 79935 • (915) 592-3591 • fax 592-3594

CHAIN OF CUSTODY RECORD

CLIENT	ADDRESS	
ASI	555 Telshor Suite 310 Las Cruces NM 88001	
TELEPHONE (505) 522-7229	PROJECT 9967.40.09	JOB/P.O. NO.

• REFER TO FEE SCHEDULE FOR ANALYSES SELECTION •

SAMPLER (SIGNATURE): [signature]

SAMPLER (PLEASE PRINT): TONY M. TAYLOR

SAMPLE TYPE CODES: S – SOIL, G – SLUDGE, X – OTHER, W – WATER, T – TRAVEL BLANK, O – OIL, F – FIELD BLANK

CLIENT SAMPLE IDENTIFICATION NUMBER	DATE	TIME	SAMPLE LOCATION	HOLD	COMPOSITE	GRAB	SAMPLE TYPE	NUMBER OF CONTAINERS	TCLP - VOCs	TCLP - SEMI VOC	TCLP - METALS	TCLP - Sub-metals	PCB+PEST	CYANIDE-T	COMMENTS	LABORATORY SAMPLE IDENTIFICATION NUMBER
ASI - INFF TANK	10/9/92	10:10am	SITE #1 0"-6"				S	1					X			6202702
		10:20am	" 30"-36"				S	1								6202703
		11:15am	SITE #2 0"-6"				S	1								6202704
		11:35am	30"-36"				S	1								6202705
		12:15pm	SITE #3 0"-6"				S	1								6202706
		12:15pm	30"-36"				S	1								6202707
		1:20pm	TANK CONTENTS #1				S	1								6202708
		1:30pm	TANK CONTENTS #2				S	1								6202709
		1:40pm	DECON H2O #1				W	1								6202710
		1:50pm	DECON H2O #2				W	1								6202711

RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	REMARKS
[signature] 10/9/92	Brad Thompson	10/9/92	1055	~~2 water samples transferred into VOAs~~ - 1600 BT
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	Do not run volatiles on water
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	Run PCB & Pesticides on soil
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	& TCLP PCB & Pesticides on water

Department Job File: Pink - Client

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CLIENT Advanced Sciences Inc.
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Las Cruces, NM 88001

SAMPLE NO. : 6202702
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #1 0"-6"

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: --

Inorganic Non-Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Total(Distillation) .....:	14.	mg/Kg	1.0	10-20-92

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CLIENT Advanced Sciences Inc.
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Las Cruces, NM 88001

SAMPLE NO. : 6202703
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #1 30"-36"

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: --

Inorganic Non-Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Total(Distillation) .....:	2.1	mg/Kg	1.0	10-20-92

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CLIENT Advanced Sciences Inc.
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SAMPLE NO. : 6202704
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #2 0"- 6"

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: --

Inorganic Non-Metals

D A T A T A B L E

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Total(Distillation) .....:	2.4	mg/Kg	1.0	10-20-92

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SAMPLE NO. : 6202705
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #2 30"-36"

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: --

Inorganic Non-Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Total(Distillation) .....:	<1.0	mg/Kg	1.0	10-20-92

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SAMPLE NO. : 6202706
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #3 0"-6"

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: --

Inorganic Non-Metals

D A T A T A B L E

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Total(Distillation) .....:	10.	mg/Kg	1.0	10-20-92

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SAMPLE NO. : 6202707
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #30"-36"

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: --

Inorganic Non-Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Total(Distillation) .....:	1.6	mg/Kg	1.0	10-20-92

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SAMPLE NO. : 6202708
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Tank Contents #1

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: --

Inorganic Non-Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Total(Distillation) .....:	65.	mg/Kg	1.0	10-20-92

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SAMPLE NO. : 6202709
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Tank Contents #2

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: --

Inorganic Non-Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Total(Distillation) .....:	86.	mg/Kg	1.0	10-20-92

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SAMPLE NO. : 6202702
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #1 0"-6"

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: --

TCLP Metals

D A T A T A B L E

Parameter	Result	Unit	Detection Limit	Analysis Date
Arsenic (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Barium (TCLP) .....:	0.48	mg/L	0.05	10-22-92
Cadmium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Chromium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Lead (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Mercury (TCLP) .....:	<0.01	mg/L	0.01	10-29-92
Selenium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Silver (TCLP) .....:	<0.05	mg/L	0.05	10-22-92

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SAMPLE NO. : 6202703
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #1 30"-36"

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: --

TCLP Metals

D A T A T A B L E

Parameter	Result	Unit	Detection Limit	Analysis Date
Arsenic (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Barium (TCLP) .....:	0.89	mg/L	0.05	10-22-
Cadmium (TCLP) .....:	<0.05	mg/L	0.05	10-22-
Chromium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Lead (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Mercury (TCLP) .....:	<0.01	mg/L	0.01	10-29-92
Selenium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Silver (TCLP) .....:	<0.05	mg/L	0.05	10-22-92

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SAMPLE NO. : 6202704
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #2 0"- 6"

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: --

TCLP Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Arsenic (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Barium (TCLP) .....:	0.72	mg/L	0.05	10-22-92
Cadmium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Chromium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Lead (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Mercury (TCLP) .....:	<0.01	mg/L	0.01	10-29-92
Selenium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Silver (TCLP) .....:	<0.05	mg/L	0.05	10-22-92

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SAMPLE NO. : 6202705
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #2 30"-36"

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: --

TCLP Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Arsenic (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Barium (TCLP) .....:	1.0	mg/L	0.05	10-22-[illegible]
Cadmium (TCLP) .....:	<0.05	mg/L	0.05	10-22-[illegible]
Chromium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Lead (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Mercury (TCLP) .....:	<0.01	mg/L	0.01	10-29-92
Selenium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Silver (TCLP) .....:	<0.05	mg/L	0.05	10-22-92

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SAMPLE NO. : 6202706
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #3 0"-6"

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: --

TCLP Metals

D A T A T A B L E

Parameter	Result	Unit	Detection Limit	Analysis Date
Arsenic (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Barium (TCLP) .....:	0.20	mg/L	0.05	10-22-92
Cadmium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Chromium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Lead (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Mercury (TCLP) .....:	<0.01	mg/L	0.01	10-29-92
Selenium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Silver (TCLP) .....:	<0.05	mg/L	0.05	10-22-92

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SAMPLE NO. : 6202707
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #30"-36"

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: --

TCLP Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Arsenic (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Barium (TCLP) .....:	<0.82	mg/L	0.05	10-22-92
Cadmium (TCLP) .....:	<0.05	mg/L	0.05	10-22-9
Chromium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Lead (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Mercury (TCLP) .....:	<0.01	mg/L	0.01	10-29-92
Selenium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Silver (TCLP) .....:	<0.05	mg/L	0.05	10-22-92

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SAMPLE NO. : 6202708
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Tank Contents #1

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: --

TCLP Metals

D A T A T A B L E

Parameter	Result	Unit	Detection Limit	Analysis Date
Arsenic (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Barium (TCLP) .....:	0.88	mg/L	0.05	10-22-92
Cadmium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Chromium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Lead (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Mercury (TCLP) .....:	<0.01	mg/L	0.01	10-29-92
Selenium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Silver (TCLP) .....:	<0.05	mg/L	0.05	10-22-92

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SAMPLE NO. : 6202709
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Tank Contents #2

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: --

TCLP Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Arsenic (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Barium (TCLP) .....:	0.25	mg/L	0.05	10-22-92
Cadmium (TCLP) .....:	<0.05	mg/L	0.05	10-22-[illegible]
Chromium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Lead (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Mercury (TCLP) .....:	<0.01	mg/L	0.01	10-29-92
Selenium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Silver (TCLP) .....:	<0.05	mg/L	0.05	10-22-92

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SAMPLE NO. : 6202710
INVOICE NO.: 62120822
REPORT DATE: 10-28-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Water
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Decon H2O #1

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: --

TCLP Metals

D A T A T A B L E

Parameter	Result	Unit	Detection Limit	Analysis Date
Arsenic (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Barium (TCLP) .....:	0.28	mg/L	0.05	10-22-92
Cadmium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Chromium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Lead (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Mercury (TCLP) .....:	<0.01	mg/L	0.01	10-29-92
Selenium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Silver (TCLP) .....:	<0.05	mg/L	0.05	10-22-92

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SAMPLE NO. : 6202711
INVOICE NO.: 62120822
REPORT DATE: 10-28-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Water
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Decon H2O #2

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: --

TCLP Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Arsenic (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Barium (TCLP) .....:	0.07	mg/L	0.05	10-22-92
Cadmium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Chromium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Lead (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Mercury (TCLP) .....:	<0.01	mg/L	0.01	10-29-92
Selenium (TCLP) .....:	<0.05	mg/L	0.05	10-22-92
Silver (TCLP) .....:	<0.05	mg/L	0.05	10-22-92

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SAMPLE NO. : 6202702
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #1 0"-6"
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-13-92
ANALYSIS DATE .: 10-15-92

Organic TCLP Volatiles

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
Benzene	<0.5	mg/L	0.5
Carbon tetrachloride	<0.5	mg/L	0.5
Chlorobenzene	<100.	mg/L	100.
Chloroform	<6.0	mg/L	6.0
1,2-Dichloroethane	<0.5	mg/L	0.5
1,1-Dichloroethylene	<0.7	mg/L	0.7
Methyl ethyl ketone	<200.	mg/L	200.
Tetrachloroethylene	<0.7	mg/L	0.7
Trichloroethylene	1.6	mg/L	0.5
Vinyl Chloride	<0.2	mg/L	0.2

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SAMPLE NO. : 6202703
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #1 30"-36"
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-13-92
ANALYSIS DATE .: 10-15-92

Organic TCLP Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Benzene .....:	<0.5	mg/L	0.5
Carbon tetrachloride .....:	<0.5	mg/L	0.5
Chlorobenzene .....:	<100.	mg/L	100.
Chloroform .....:	<6.0	mg/L	6.0
1,2-Dichloroethane .....:	<0.5	mg/L	0.5
1,1-Dichloroethylene .....:	<0.7	mg/L	0.7
Methyl ethyl ketone .....:	<200.	mg/L	200.
Tetrachloroethylene .....:	<0.7	mg/L	0.7
Trichloroethylene .....:	1.3	mg/L	0.5
Vinyl Chloride .....:	<0.2	mg/L	0.2

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Las Cruces, NM 88001

SAMPLE NO. : 6202704
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #2 0"- 6"
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-14-92
ANALYSIS DATE .: 10-15-92

Organic TCLP Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Benzene .....:	<0.5	mg/L	0.5
Carbon tetrachloride .....:	<0.5	mg/L	0.5
Chlorobenzene .....:	<100.	mg/L	100.
Chloroform .....:	<6.0	mg/L	6.0
1,2-Dichloroethane .....:	<0.5	mg/L	0.5
1,1-Dichloroethylene .....:	<0.7	mg/L	0.7
Methyl ethyl ketone .....:	<200.	mg/L	200.
Tetrachloroethylene .....:	<0.7	mg/L	0.7
Trichloroethylene .....:	<0.5	mg/L	0.5
Vinyl Chloride .....:	<0.2	mg/L	0.2

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Las Cruces, NM 88001

SAMPLE NO. : 6202705
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #2 30"-36"
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-14-92
ANALYSIS DATE .: 10-15-92

Organic TCLP Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Benzene	<0.5	mg/L	0.5
Carbon tetrachloride	<0.5	mg/L	0.5
Chlorobenzene	<100.	mg/L	100.
Chloroform	<6.0	mg/L	6.0
1,2-Dichloroethane	<0.5	mg/L	0.5
1,1-Dichloroethylene	<0.7	mg/L	0.7
Methyl ethyl ketone	<200.	mg/L	200.
Tetrachloroethylene	<0.7	mg/L	0.7
Trichloroethylene	1.0	mg/L	0.5
Vinyl Chloride	<0.2	mg/L	0.2

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CLIENT Advanced Sciences Inc.
555 S. Telshor Ste 310
Las Cruces, NM 88001

SAMPLE NO. : 6202706
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #3 0"-6"
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-15-92
ANALYSIS DATE .: 10-19-92

Organic TCLP Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Benzene	<0.5	mg/L	0.5
Carbon tetrachloride	<0.5	mg/L	0.5
Chlorobenzene	<100.	mg/L	100.
Chloroform	<6.0	mg/L	6.0
1,2-Dichloroethane	<0.5	mg/L	0.5
1,1-Dichloroethylene	<0.7	mg/L	0.7
Methyl ethyl ketone	<200.	mg/L	200.
Tetrachloroethylene	<0.7	mg/L	0.7
Trichloroethylene	0.53	mg/L	0.5
Vinyl Chloride	<0.2	mg/L	0.2

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SAMPLE NO. : 6202707
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #30"-36"
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-19-92
ANALYSIS DATE .: 10-19-92

Organic TCLP Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Benzene	<0.5	mg/L	0.5
Carbon tetrachloride	<0.5	mg/L	0.5
Chlorobenzene	<100.	mg/L	100.
Chloroform	<6.0	mg/L	6.0
1,2-Dichloroethane	<0.5	mg/L	0.5
1,1-Dichloroethylene	<0.7	mg/L	0.7
Methyl ethyl ketone	<200.	mg/L	200.
Tetrachloroethylene	<0.7	mg/L	0.7
Trichloroethylene	<0.5	mg/L	0.5
Vinyl Chloride	<0.2	mg/L	0.2

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SAMPLE NO. : 6202708
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Tank Contents #1
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-16-92
ANALYSIS DATE .: 10-19-92

Organic TCLP Volatiles

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
Benzene .....:	<0.5	mg/L	0.5
Carbon tetrachloride .....:	<0.5	mg/L	0.5
Chlorobenzene .....:	<100.	mg/L	100.
Chloroform .....:	<6.0	mg/L	6.0
1,2-Dichloroethane .....:	<0.5	mg/L	0.5
1,1-Dichloroethylene .....:	<0.7	mg/L	0.7
Methyl ethyl ketone .....:	<200.	mg/L	200.
Tetrachloroethylene .....:	<0.7	mg/L	0.7
Trichloroethylene .....:	<0.5	mg/L	0.5
Vinyl Chloride .....:	<0.2	mg/L	0.2

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SAMPLE NO. : 6202709
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Tank Contents #2
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-16-92
ANALYSIS DATE .: 10-19-92

Organic TCLP Volatiles

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
Benzene	<0.5	mg/L	0.5
Carbon tetrachloride	<0.5	mg/L	0.5
Chlorobenzene	<100.	mg/L	100.
Chloroform	<6.0	mg/L	6.0
1,2-Dichloroethane	<0.5	mg/L	0.5
1,1-Dichloroethylene	<0.7	mg/L	0.7
Methyl ethyl ketone	<200.	mg/L	200.
Tetrachloroethylene	<0.7	mg/L	0.7
Trichloroethylene	<0.5	mg/L	0.5
Vinyl Chloride	<0.2	mg/L	0.2

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SAMPLE NO. : 6202702
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #1 0"-6"
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-13-92
ANALYSIS DATE .: 10-21-92

Organic TCLP Semi - Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Chlordane	<0.03	mg/L	0.03
o-Cresol	<200.	mg/L	200.
m-Cresol	<200.	mg/L	200.
p-Cresol	<200.	mg/L	200.
2,4-D	<10.	mg/L	10.
1,4-Dichlorobenzene	<7.5	mg/L	7.5
2,4-Dinitrotoluene	<0.13	mg/L	0.13
Endrin	<0.02	mg/L	0.02
Heptachlor	<0.008	mg/L	0.008
Hexachlorobenzene	<0.13	mg/L	0.13
Hexachloro-1,3-butadiene	<0.5	mg/L	0.5
Hexachloroethane	<3.0	mg/L	3.0
Lindane	<0.4	mg/L	0.4
Methoxychlor	<10.	mg/L	10.
Nitrobenzene	<2.0	mg/L	2.0
Heptachlor epoxide	<0.008	mg/L	0.008
Pentachlorophenol	<100.	mg/L	100.
Pyridine	<5.0	mg/L	5.0
Toxaphene	<0.5	mg/L	0.5
2,4,5-Trichlorophenol	<400.	mg/L	400.
2,4,6-Trichlorophenol	<2.0	mg/L	2.0
2,4,5-TP (Silvex)	<1.0	mg/L	1.0

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SAMPLE NO. : 6202703
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #1 30"-36"
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-20-92
ANALYSIS DATE .: 10-23-92

Organic TCLP Semi - Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Chlordane	<0.03	mg/L	0.03
o-Cresol	<200.	mg/L	200.
m-Cresol	<200.	mg/L	200.
p-Cresol	<200.	mg/L	200.
2,4-D	<10.	mg/L	10.
1,4-Dichlorobenzene	<7.5	mg/L	7.5
2,4-Dinitrotoluene	<0.13	mg/L	0.13
Endrin	<0.02	mg/L	0.02
Heptachlor	<0.008	mg/L	0.008
Hexachlorobenzene	<0.13	mg/L	0.13
Hexachloro-1,3-butadiene	<0.5	mg/L	0.5
Hexachloroethane	<3.0	mg/L	3.0
Lindane	<0.4	mg/L	0.4
Methoxychlor	<10.	mg/L	10.
Nitrobenzene	<2.0	mg/L	2.0
Heptachlor epoxide	<0.008	mg/L	0.008
Pentachlorophenol	<100.	mg/L	100.
Pyridine	<5.0	mg/L	5.0
Toxaphene	<0.5	mg/L	0.5
2,4,5-Trichlorophenol	<400.	mg/L	400.
2,4,6-Trichlorophenol	<2.0	mg/L	2.0
2,4,5-TP (Silvex)	<1.0	mg/L	1.0

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El Paso • 10737 Gateway West #100 • TX 79935 • (915) 592-3591 • fax 592-3594

CHAIN CUSTODY RECORD

CLIENT	ADDRESS	
ASI	555 TELSHOR SUITE 310 LAS CRUCES NM 88001	
TELEPHONE: 505 523-7229	PROJECT: FWAP TANK CLOSURE	JOB/P.O. NO: 9967.40.09

• REFER TO FEE SCHEDULE FOR ANALYSES SELECTION •

SAMPLER (SIGNATURE): [signature]

SAMPLER (PLEASE PRINT): TONY M. TAYLOR

SAMPLE TYPE CODES: S – SOIL, G – SLUDGE, X – OTHER, W – WATER, T – TRAVEL BLANK, O – OIL, F – FIELD BLANK

CLIENT SAMPLE IDENTIFICATION NUMBER	DATE	TIME	SAMPLE LOCATION	HOLD	COMPOSITE	GRAB	SAMPLE TYPE	NUMBER OF CONTAINERS	TCLP METALS	TCLP SEMI-VOL	TCLP VOLS	TCLP PESTICIDES	COMMENTS	LABORATORY SAMPLE IDENTIFICATION NUMBER
OUTSIDE TANK S	8/6/92	10:15	SOUTH		✓			1	✓	✓	✓		POWDERED DRY SOLID	6202130
OUTSIDE TANK N	"	10:50	NORTH		✓			1	✓	✓	✓		"	6202131
														~~6202132~~

RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	REMARKS
Linda M. Thurman	Brigid Thompson	8/6/92	1530	
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	

623 White - Testing Laboratory; Yellow - Department Job File; Pink - Client

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El Paso • 10737 Gateway West #100 • TX 79935 • (915) 592-3591 • fax 592-3594

CHAIN OF CUSTODY RECORD

CLIENT	ADDRESS	
[illegible]	[illegible]	
TELEPHONE [illegible]	PROJECT [illegible]	JOB/P.O. NO [illegible]

• REFER TO FEE SCHEDULE FOR ANALYSES SELECTION •

SAMPLER (SIGNATURE): [illegible]

SAMPLER (PLEASE PRINT): [illegible]

SAMPLE TYPE CODES
S – SOIL G – SLUDGE X – OTHER
W – WATER T – TRAVEL BLANK
O – OIL F – FIELD BLANK

CLIENT SAMPLE IDENTIFICATION NUMBER	DATE	TIME	SAMPLE LOCATION	HOLD	COMPOSITE	GRAB	SAMPLE TYPE	NUMBER OF CONTAINERS	REQUESTED ANALYSES	COMMENTS	LABORATORY SAMPLE IDENTIFICATION NUMBER
[illegible]	[illegible]	[illegible]	[illegible]		✓			1			
[illegible]	[illegible]	[illegible]	[illegible]		✓			1			

RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	REMARKS
[illegible]	[illegible]	[illegible]	[illegible]	
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	

623 White - Te[illegible] Laboratory; Yellow - Department Job File; Pink - Client

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CLIENT Advanced Sciences Inc.
Attn: David Bollschweiler
555 S. Telshor Ste.310
Las Cruces, NM 88001

SAMPLE NO. : 6202130
INVOICE NO.: 62120646
REPORT DATE: 08-17-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : Outside Tank S
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Linda Thurman
SAMPLE SOURCE ...: South
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 08-06-92
SUBMITTAL DATE : 08-06-92
EXTRACTION DATE: 08-11-92
ANALYSIS DATE .: 08-13-92

Organic TCLP Volatiles

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
Benzene .....:	<0.5	mg/L	0.5
Carbon tetrachloride .....:	<0.5	mg/L	0.5
Chlorobenzene .....:	<100.	mg/L	100.
Chloroform .....:	<6.0	mg/L	6.0
1,2-Dichloroethane .....:	<0.5	mg/L	0.5
1,1-Dichloroethylene .....:	<0.7	mg/L	0.7
Methyl ethyl ketone .....:	<200.	mg/L	200.
Tetrachloroethylene .....:	<0.7	mg/L	0.7
Trichloroethylene .....:	<0.5	mg/L	0.5
Vinyl Chloride .....:	<0.2	mg/L	0.2

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Las Cruces, NM 88001

SAMPLE NO. : 6202130
INVOICE NO.: 62120646
REPORT DATE: 08-17-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : Outside Tank S
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Linda Thurman
SAMPLE SOURCE ...: South
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 08-06-92
SUBMITTAL DATE : 08-06-92
EXTRACTION DATE: 09-13-92
ANALYSIS DATE .: 09-17-92

Organic TCLP Semi - Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Chlordane	<0.03	mg/L	0.03
o-Cresol	<200.	mg/L	200.
m-Cresol	<200.	mg/L	200.
p-Cresol	<200.	mg/L	200.
2,4-D	<10.	mg/L	10.
1,4-Dichlorobenzene	<7.5	mg/L	7.5
2,4-Dinitrotoluene	<0.13	mg/L	0.13
Endrin	<0.02	mg/L	0.02
Heptachlor	<0.008	mg/L	0.008
Hexachlorobenzene	<0.13	mg/L	0.13
Hexachloro-1,3-butadiene	<0.5	mg/L	0.5
Hexachloroethane	<3.0	mg/L	3.0
Lindane	<0.4	mg/L	0.4
Methoxychlor	<10.	mg/L	10.
Nitrobenzene	<2.0	mg/L	2.0
Heptachlor epoxide	<0.008	mg/L	0.008
Pentachlorophenol	<100.	mg/L	100.
Pyridine	<5.0	mg/L	5.0
Toxaphene	<0.5	mg/L	0.5
2,4,5-Trichlorophenol	<400.	mg/L	400.
2,4,6-Trichlorophenol	<2.0	mg/L	2.0
2,4,5-TP (Silvex)	<1.0	mg/L	1.0

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SAMPLE NO. : 6202130
INVOICE NO.: 62120646
REPORT DATE: 08-17-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : Outside Tank S
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Linda Thurman
SAMPLE SOURCE ...: South

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 08-06-92
SUBMITTAL DATE : 08-06-92
EXTRACTION DATE: --

TCLP Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Arsenic (TCLP) .....:	0.13	mg/L	0.01	08-21-92
Barium (TCLP) .....:	260.	mg/L	0.20	08-24-92
Cadmium (TCLP) .....:	<0.05	mg/L	0.05	08-18-92
Chromium (TCLP) .....:	0.43	mg/L	0.10	08-18-92
Lead (TCLP) .....:	0.79	mg/L	0.20	08-18-92
Mercury (TCLP) .....:	<0.01	mg/L	0.01	08-24-92
Selenium (TCLP) .....:	<0.05	mg/L	0.05	08-21-92
Silver (TCLP) .....:	0.13	mg/L	0.05	08-18-92

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Las Cruces, NM 88001

SAMPLE NO. : 6202131
INVOICE NO.: 62120646
REPORT DATE: 08-17-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : Outside Tank N
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Linda Thurman
SAMPLE SOURCE ...: North
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 08-06-92
SUBMITTAL DATE : 08-06-92
EXTRACTION DATE: 08-12-92
ANALYSIS DATE .: 08-13-92

Organic TCLP Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Benzene .....:	<0.5	mg/L	0.5
Carbon tetrachloride .....:	<0.5	mg/L	0.5
Chlorobenzene .....:	<100.	mg/L	100.
Chloroform .....:	<6.0	mg/L	6.0
1,2-Dichloroethane .....:	<0.5	mg/L	0.5
1,1-Dichloroethylene .....:	<0.7	mg/L	0.7
Methyl ethyl ketone .....:	<200.	mg/L	200.
Tetrachloroethylene .....:	<0.7	mg/L	0.7
Trichloroethylene .....:	<0.5	mg/L	0.5
Vinyl Chloride .....:	<0.2	mg/L	0.2

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Las Cruces, NM 88001

SAMPLE NO. : 6202131
INVOICE NO.: 62120646
REPORT DATE: 08-17-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : Outside Tank N
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Linda Thurman
SAMPLE SOURCE ...: North
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 08-06-92
SUBMITTAL DATE : 08-06-92
EXTRACTION DATE: 09-13-92
ANALYSIS DATE .: 09-17-92

Organic TCLP Semi - Volatiles

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
Chlordane	<0.03	mg/L	0.03
-Cresol	<200.	mg/L	200.
-Cresol	<200.	mg/L	200.
p-Cresol	<200.	mg/L	200.
2,4-D	<10.	mg/L	10.
1,4-Dichlorobenzene	<7.5	mg/L	7.5
2,4-Dinitrotoluene	<0.13	mg/L	0.13
Endrin	<0.02	mg/L	0.02
Heptachlor	<0.008	mg/L	0.008
Hexachlorobenzene	<0.13	mg/L	0.13
Hexachloro-1,3-butadiene	<0.5	mg/L	0.5
Hexachloroethane	<3.0	mg/L	3.0
Lindane	<0.4	mg/L	0.4
Methoxychlor	<10.	mg/L	10.
Nitrobenzene	<2.0	mg/L	2.0
Heptachlor epoxide	<0.008	mg/L	0.008
Pentachlorophenol	<100.	mg/L	100.
Pyridine	<5.0	mg/L	5.0
Toxaphene	<0.5	mg/L	0.5
2,4,5-Trichlorophenol	<400.	mg/L	400.
2,4,6-Trichlorophenol	<2.0	mg/L	2.0
2,4,5-TP (Silvex)	<1.0	mg/L	1.0

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Westech Laboratories Inc.
10737 Gateway West, No. 100
El Paso, Texas 79935
(915) 592-3591 • fax 592-3594

CLIENT Advanced Sciences Inc.
Attn: David Bollschweiler
555 S. Telshor Ste.310
Las Cruces, NM 88001

SAMPLE NO. : 6202131
INVOICE NO.: 62120646
REPORT DATE: 08-17-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : Outside Tank N
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Linda Thurman
SAMPLE SOURCE ...: North

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 08-06-92
SUBMITTAL DATE : 08-06-92
EXTRACTION DATE: --

TCLP Metals

D A T A T A B L E

Parameter	Result	Unit	Detection Limit	Analysis Date
Arsenic (TCLP) .....:	0.12	mg/L	0.01	08-21-92
Barium (TCLP) .....:	250.	mg/L	0.20	08-24-92
Cadmium (TCLP) .....:	<0.05	mg/L	0.05	08-18-92
Chromium (TCLP) .....:	0.46	mg/L	0.10	08-18-92
Lead (TCLP) .....:	0.79	mg/L	0.20	08-18-92
Mercury (TCLP) .....:	<0.01	mg/L	0.01	08-24-92
Selenium (TCLP) .....:	<0.05	mg/L	0.05	08-21-92
Silver (TCLP) .....:	0.11	mg/L	0.05	08-18-92

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CHAIN OF CUSTODY RECORD

JOB NO. 9967.40.09

PROJECT NAME: EVAP. TANK CLOSURE

SAMPLER (SIGNATURE): David Bellschweiler

SAMPLE IDENTIFICATION	DATE	TIME	COMP.	GRAB	SAMPLE LOCATION	NUMBER OF CONTAINERS	VACSAM	SOIL SCOOP	SOIL AUGER	SPLIT-SPOON	BAILER		REMARKS (PHYSICAL APPEARANCE, etc.)	LABORATORY IDENTIFICATION
#1 CONCRETE	7/10/92	8:55	✓		TANK BOTTOM	1		✓					POWDERED DRY SOLID	6201822
#2 CONCRETE	"	9:20	✓		TANK BOTTOM	1		✓					" " "	6201823
#3 CONCRETE	"	9:45	✓		TANK BOTTOM	1		✓					" " "	6201824

RUSH

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
Linda M. Thurman	7/10/92	15:10	Brigid Thompson				
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE	TIME	REMARKS	
						RUN ALL APPENDIX IX TESTS ON ALL SAMPLES. RUSH ORDER	

SHIPPING TEMP. (°F): MIN. MAX.

David Bellschweiler

WESTERN TECHNOLOGIES INC.

White-Testing Laboratory; Yellow-Department Job File; Pink-Field Sampler

CHANGE ORDER

Client Advanced Sciences

Invoice No. 62120559-on reports bulk 62120678 Submittal Date 7-14 Change Date 7-30-92

Sample Numbers Changed

6201822
6201823
6201824

Changes Made

TOTAL TCLP on 3 samples

Change Authorized By Tony Taylor

Change Accepted By Brigid Thompson

Change Made By

Photocopy to appropriate Laboratory Group; Copy to Work File.

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CLIENT Advanced Sciences Inc.
Attn: David Bollschweiler
555 S. Telshor Ste.310
Las Cruces, NM 88001

SAMPLE NO. : 6201822
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : #1 Concrete
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Evap. Tank Closure
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: 08-18-92
ANALYSIS DATE .: 08-12-92

Organic TCLP Volatiles

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
Benzene	<0.5	mg/L	0.5
Carbon tetrachloride	<0.5	mg/L	0.5
Chlorobenzene	<100.	mg/L	100.
Chloroform	<6.0	mg/L	6.0
1,2-Dichloroethane	<0.5	mg/L	0.5
1,1-Dichloroethylene	<0.7	mg/L	0.7
Methyl ethyl ketone	<200.	mg/L	200.
Tetrachloroethylene	<0.7	mg/L	0.7
Trichloroethylene	<0.5	mg/L	0.5
Vinyl Chloride	<0.2	mg/L	0.2

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CLIENT Advanced Sciences Inc.
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555 S. Telshor Ste.310
Las Cruces, NM 88001

SAMPLE NO. : 6201822
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : #1 Concrete
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Evap. Tank Closure
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: 08-07-92
ANALYSIS DATE .: 08-12-92

Organic TCLP Semi - Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Chlordane	<0.03	mg/L	0.03
o-Cresol	<200.	mg/L	200.
m-Cresol	<200.	mg/L	200.
p-Cresol	<200.	mg/L	200.
2,4-D	<10.	mg/L	10.
1,4-Dichlorobenzene	<7.5	mg/L	7.5
2,4-Dinitrotoluene	<0.13	mg/L	0.13
Endrin	<0.02	mg/L	0.02
Heptachlor	<0.008	mg/L	0.008
Hexachlorobenzene	<0.13	mg/L	0.13
Hexachloro-1,3-butadiene	<0.5	mg/L	0.5
Hexachloroethane	<3.0	mg/L	3.0
Lindane	<0.4	mg/L	0.4
Methoxychlor	<10.	mg/L	10.
Nitrobenzene	<2.0	mg/L	2.0
Heptachlor epoxide	<0.008	mg/L	0.008
Pentachlorophenol	<100.	mg/L	100.
Pyridine	<5.0	mg/L	5.0
Toxaphene	<0.5	mg/L	0.5
2,4,5-Trichlorophenol	<400.	mg/L	400.
2,4,6-Trichlorophenol	<2.0	mg/L	2.0
2,4,5-TP (Silvex)	<1.0	mg/L	1.0

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CLIENT Advanced Sciences Inc.
Attn: David Bollschweiler
555 S. Telshor Ste.310
Las Cruces, NM 88001

SAMPLE NO. : 6201822
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : #1 Concrete
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Evap. Tank Closure

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: --

TCLP Metals

D A T A T A B L E

Parameter	Result	Unit	Detection Limit	Analysis Date
Arsenic (TCLP) .....:	0.03	mg/L	0.01	08-11-92
Barium (TCLP) .....:	340.	mg/L	0.20	08-10-92
Cadmium (TCLP) .....:	<0.05	mg/L	0.05	08-10-92
Chromium (TCLP) .....:	0.17	mg/L	0.10	08-07-92
Lead (TCLP) .....:	0.35	mg/L	0.20	08-10-92
Mercury (TCLP) .....:	<0.01	mg/L	0.01	08-10-92
Selenium (TCLP) .....:	<0.05	mg/L	0.05	08-11-92
Silver (TCLP) .....:	0.05	mg/L	0.05	08-10-92

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CLIENT Advanced Sciences Inc.
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Las Cruces, NM 88001

SAMPLE NO. : 6201823
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : #2 Concrete
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Evap. Tank Closure
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: 08-08-92
ANALYSIS DATE .: 08-12-92

Organic TCLP Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Benzene .....:	<0.5	mg/L	0.5
Carbon tetrachloride .....:	<0.5	mg/L	0.5
Chlorobenzene .....:	<100.	mg/L	100.
Chloroform .....:	<6.0	mg/L	6.0
1,2-Dichloroethane .....:	<0.5	mg/L	0.5
1,1-Dichloroethylene .....:	<0.7	mg/L	0.7
Methyl ethyl ketone .....:	<200.	mg/L	200.
Tetrachloroethylene .....:	<0.7	mg/L	0.7
Trichloroethylene .....:	<0.5	mg/L	0.5
Vinyl Chloride .....:	<0.2	mg/L	0.2

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555 S. Telshor Ste.310
Las Cruces, NM 88001

SAMPLE NO. : 6201823
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : #2 Concrete
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Evap. Tank Closure
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: 08-07-92
ANALYSIS DATE .: 08-12-92

Organic TCLP Semi - Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Chlordane	<0.03	mg/L	0.03
-Cresol	<200.	mg/L	200.
Cresol	<200.	mg/L	200.
p-Cresol	<200.	mg/L	200.
2,4-D	<10.	mg/L	10.
1,4-Dichlorobenzene	<7.5	mg/L	7.5
2,4-Dinitrotoluene	<0.13	mg/L	0.13
Endrin	<0.02	mg/L	0.02
Heptachlor	<0.008	mg/L	0.008
Hexachlorobenzene	<0.13	mg/L	0.13
Hexachloro-1,3-butadiene	<0.5	mg/L	0.5
Hexachloroethane	<3.0	mg/L	3.0
Lindane	<0.4	mg/L	0.4
Methoxychlor	<10.	mg/L	10.
Nitrobenzene	<2.0	mg/L	2.0
Heptachlor epoxide	<0.008	mg/L	0.008
Pentachlorophenol	<100.	mg/L	100.
Pyridine	<5.0	mg/L	5.0
Toxaphene	<0.5	mg/L	0.5
2,4,5-Trichlorophenol	<400.	mg/L	400.
2,4,6-Trichlorophenol	<2.0	mg/L	2.0
2,4,5-TP (Silvex)	<1.0	mg/L	1.0

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Attn: David Bollschweiler
555 S. Telshor Ste.310
Las Cruces, NM 88001

SAMPLE NO. : 6201823
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : #2 Concrete
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Evap. Tank Closure

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: --

TCLP Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Arsenic (TCLP) .....:	0.03	mg/L	0.01	08-11-92
Barium (TCLP) .....:	370.	mg/L	0.20	08-10-92
Cadmium (TCLP) .....:	<0.05	mg/L	0.05	08-10-92
Chromium (TCLP) .....:	0.30	mg/L	0.10	08-07-92
Lead (TCLP) .....:	0.61	mg/L	0.20	08-10-92
Mercury (TCLP) .....:	<0.01	mg/L	0.01	08-10-92
Selenium (TCLP) .....:	<0.05	mg/L	0.05	08-11-92
Silver (TCLP) .....:	0.11	mg/L	0.05	08-10-92

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Las Cruces, NM 88001

SAMPLE NO. : 6201824
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : #3 Concrete
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Evap. Tank Closure
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: 08-11-92
ANALYSIS DATE .: 08-13-92

Organic TCLP Volatiles

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
Benzene .....:	<0.5	mg/L	0.5
Carbon tetrachloride .....:	<0.5	mg/L	0.5
Chlorobenzene .....:	<100.	mg/L	100.
Chloroform .....:	<6.0	mg/L	6.0
1,2-Dichloroethane .....:	<0.5	mg/L	0.5
1,1-Dichloroethylene .....:	<0.7	mg/L	0.7
Methyl ethyl ketone .....:	<200.	mg/L	200.
Tetrachloroethylene .....:	<0.7	mg/L	0.7
Trichloroethylene .....:	<0.5	mg/L	0.5
Vinyl Chloride .....:	<0.2	mg/L	0.2

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CLIENT Advanced Sciences Inc.
Attn: David Bollschweiler
555 S. Telshor Ste.310
Las Cruces, NM 88001

SAMPLE NO. : 6201824
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : #3 Concrete
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Evap. Tank Closure
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: 08-07-92
ANALYSIS DATE .: 08-12-92

Organic TCLP Semi - Volatiles

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
Chlordane	<0.03	mg/L	0.03
o-Cresol	<200.	mg/L	200.
m-Cresol	<200.	mg/L	200.
p-Cresol	<200.	mg/L	200.
2,4-D	<10.	mg/L	10.
1,4-Dichlorobenzene	<7.5	mg/L	7.5
2,4-Dinitrotoluene	<0.13	mg/L	0.13
Endrin	<0.02	mg/L	0.02
Heptachlor	<0.008	mg/L	0.008
Hexachlorobenzene	<0.13	mg/L	0.13
Hexachloro-1,3-butadiene	<0.5	mg/L	0.5
Hexachloroethane	<3.0	mg/L	3.0
Lindane	<0.4	mg/L	0.4
Methoxychlor	<10.	mg/L	10.
Nitrobenzene	<2.0	mg/L	2.0
Heptachlor epoxide	<0.008	mg/L	0.008
Pentachlorophenol	<100.	mg/L	100.
Pyridine	<5.0	mg/L	5.0
Toxaphene	<0.5	mg/L	0.5
2,4,5-Trichlorophenol	<400.	mg/L	400.
2,4,6-Trichlorophenol	<2.0	mg/L	2.0
2,4,5-TP (Silvex)	<1.0	mg/L	1.0

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CLIENT Advanced Sciences Inc.
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Las Cruces, NM 88001

SAMPLE NO. : 6201824
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : #3 Concrete
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Evap. Tank Closure

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: --

TCLP Metals

D A T A T A B L E

Parameter	Result	Unit	Detection Limit	Analysis Date
Arsenic (TCLP) .....:	<0.01	mg/L	0.01	08-11-92
Barium (TCLP) .....:	330.	mg/L	0.20	08-10-92
Cadmium (TCLP) .....:	<0.05	mg/L	0.05	08-10-92
Chromium (TCLP) .....:	0.26	mg/L	0.10	08-07-92
Lead (TCLP) .....:	0.49	mg/L	0.20	08-10-92
Mercury (TCLP) .....:	<0.01	mg/L	0.01	08-10-92
Selenium (TCLP) .....:	<0.05	mg/L	0.05	08-11-92
Silver (TCLP) .....:	0.06	mg/L	0.05	08-10-92

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CHAIN OF CUSTODY RECORD

JOB NO. 9967.40.09

PROJECT NAME: EVAP. TANK CLOSURE

SAMPLER (SIGNATURE): David Bollschweiler

SAMPLE IDENTIFICATION	DATE	TIME	COMP.	GRAB	SAMPLE LOCATION	NUMBER OF CONTAINERS	VACSAM	SOIL SCOOP	SOIL AUGER	SPLIT-SPOON	BAILER	REMARKS (PHYSICAL APPEARANCE, etc.)	LABORATORY IDENTIFICATION
#1 CONCRETE	7/10/92	8:55	✓		TANK BOTTOM	1		✓				POWDERED DRY SOLID	6201822
#2 CONCRETE	"	9:20	✓		TANK BOTTOM	1		✓				" " "	6201823
#3 CONCRETE	"	9:45	✓		TANK BOTTOM	1		✓				" " "	6201824
8270 BLANK EXTRACTION													6201825

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
Linda M. [illegible]	7/10/92	15:10	Brigid Thompson				
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE	TIME	REMARKS	
						RUN ALL APPENDIX IX TESTS ON ALL SAMPLES. RUSH ORDER	

SHIPPING TEMP. (°F): MIN. | MAX.

David Bollschweiler

WESTERN TECHNOLOGIES INC.

White-Testing Laboratory; Yellow-Department Job File; Pink-Field Sample

CHAIN OF CUSTODY RECORD

JOB NO. 9967.40.09

PROJECT NAME: EVAP. TANK CLOSURE

SAMPLER (SIGNATURE): David Bellschweiler

SAMPLE IDENTIFICATION	DATE	TIME	COMP.	GRAB	SAMPLE LOCATION	NUMBER OF CONTAINERS	VACSAM	SOIL SCOOP	SOIL AUGER	SPLIT-SPOON	BAILER	REMARKS (PHYSICAL APPEARANCE, etc.)	LABORATORY IDENTIFICATION
#1 CONCRETE	7/10/92	8:55	✓		TANK BOTTOM	1		✓				POWDERED DRY SOLID	
#2 CONCRETE	"	9:20	✓		TANK BOTTOM	1		✓				" " "	
#3 CONCRETE	"	9:45	✓		TANK BOTTOM	1		✓				" " "	

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
Linda M. Thurman	7/10/92	15:10	Brigid Thompson				
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE	TIME	REMARKS	
						RUN ALL APPENDIX IX TESTS ON ALL SAMPLES. RUSH ORDER	

SHIPPING TEMP. (°F): MIN. / MAX.

David Bellschweiler

WESTERN TECHNOLOGIES INC.

White–Testing Laboratory; Yellow–Department Job File; Pink–Field Sampler

Westech Laboratories Inc.

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El Paso, Texas 79935
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CLIENT Advanced Sciences Inc.
Attn: David Bollschweiler
555 S. Telshor Ste.310
Las Cruces, NM 88001

SAMPLE NO. : 6201822
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : #1 Concrete
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Evap. Tank Closure

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: --

Inorganic Non-Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Ammenable .....:	8.9	mg/L	1.0	07-22-92
Cyanide, Total(Distillation) .....:	37.	mg/L	1.0	07-22-92
Sulfide,Total .....:	37.	mg/L	0.10	07-16-92

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CLIENT Advanced Sciences Inc.
Attn: David Bollschweiler
555 S. Telshor Ste.310
Las Cruces, NM 88001

SAMPLE NO. : 6201822
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : #1 Concrete
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Evap. Tank Closure

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: --

Inorganic Chemistry-Total Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Total Antimony .....:	28.	mg/Kg	2.5	07-17-92
Total Arsenic .....:	61.	mg/Kg	2.5	07-17-92
Total Barium .....:	73.	mg/Kg	5.0	07-17-92
Total Beryllium .....:	<2.5	mg/Kg	2.5	07-17-92
Total Cadmium .....:	<2.5	mg/Kg	2.5	07-17-92
Total Chromium .....:	2.5	mg/Kg	2.5	07-17-92
Total Cobalt .....:	3.9	mg/Kg	2.5	07-17-92
Total Copper .....:	240.	mg/Kg	2.5	07-17-92
Total Lead .....:	<5.0	mg/Kg	5.0	07-17-92
Total Mercury .....:	<0.50	mg/Kg	0.50	07-14-91
Total Nickel .....:	4.0	mg/Kg	2.5	07-17-92
Total Selenium .....:	<2.5	mg/Kg	2.5	07-17-92
Total Silver .....:	18.	mg/Kg	2.5	07-17-92
Total Tin .....:	<2.5	mg/Kg	2.5	07-17-92
Total Thallium .....:	22.	mg/Kg	5.0	07-17-92
Total Vanadium .....:	12.	mg/Kg	2.5	07-17-92
Total Zinc .....:	130.	mg/Kg	2.5	07-17-92

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SAMPLE NO. : 6201822
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REPORT DATE: 07-16-92
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PAGE : 1 OF 1

CLIENT SAMPLE ID : #1 Concrete
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Evap. Tank Closure
ANALYST .....: S. SMITH

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: 07-13-92
ANALYSIS DATE .: 07-14-92

Method 8080 - Pesticides & PCB'S

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/Kg	10.
4,4'-DDE	<10.	ug/Kg	10.
4,4'-DDT	<10.	ug/Kg	10.
Aldrin	<10.	ug/Kg	10.
alpha-BHC	<10.	ug/Kg	10.
beta-BHC	<10.	ug/Kg	10.
delta-BHC	<10.	ug/Kg	10.
Chlordane	<150.	ug/Kg	150.
Dieldrin	<10.	ug/Kg	10.
Endosulfan I	<10.	ug/Kg	10.
Endosulfan II	<10.	ug/Kg	10.
Endosulfan sulfate	<10.	ug/Kg	10.
Endrin	<10.	ug/Kg	10.
Endrin aldehyde	<10.	ug/Kg	10.
Heptachlor	<10.	ug/Kg	10.
Hetachlor Epoxide	<10.	ug/Kg	10.
Hexachlorobenzene	<25.	ug/Kg	25.
Lindane	<10.	ug/Kg	10.
Methoxychlor	<400.	ug/Kg	400.
Toxaphene	<250.	ug/Kg	250.
PCB 1016	<100.	ug/Kg	100.
PCB 1221	<5000.	ug/Kg	5000.
PCB 1232	<100.	ug/Kg	100.
PCB 1242	<100.	ug/Kg	100.
PCB 1248	<100.	ug/Kg	100.
PCB 1254	<100.	ug/Kg	100.
PCB 1260	<100.	ug/Kg	100.

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SAMPLE NO. : 6201822
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PAGE : 1 OF 2

CLIENT SAMPLE ID : #1 Concrete
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Evap. Tank Closure
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: 07-18-92
ANALYSIS DATE .: 07-18-92

Method 8260 - Volatile Organics
Appendix IX Compounds

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
Acetone	<100.	ug/Kg	100.
rolein	<1000.	ug/Kg	1000.
rylonitrile	<1000.	ug/Kg	1000.
Benzene	<50.	ug/Kg	50.
Bromodichloromethane	<100.	ug/Kg	100.
Bromoform	<100.	ug/Kg	100.
Bromomethane	<100.	ug/Kg	100.
Carbon Disulfide	<10.	ug/Kg	10.
Carbon tetrachloride	<50.	ug/Kg	50.
Chlorobenzene	<50.	ug/Kg	50.
Dibromochloromethane	<100.	ug/Kg	100.
Chloroethane	<100.	ug/Kg	100.
Chloroform	<50.	ug/Kg	50.
Chloromethane	<100.	ug/Kg	100.
3-Chloropropene	<100.	ug/Kg	100.
1,2-Dibromo-3-chloropropane	<50.	ug/Kg	50.
1,2Dibromoethane	<100.	ug/Kg	100.
Dibromomethane	<250.	ug/Kg	250.
trans-1,4-Dichloro-2-Butene	<100.	ug/Kg	100.
Dichlorodifluoromethane	<250.	ug/Kg	250.
1,1-Dichloroethane	<50.	ug/Kg	50.
1,2-Dichloroethane	<50.	ug/Kg	50.
1,1-Dichloroethene	<50.	ug/Kg	50.
trans 1,2-Dichloroethene	<50.	ug/Kg	50.
Dichloromethane	<50.	ug/Kg	50.
1,2-Dichloropropane	<50.	ug/Kg	50.
Chloroethylvinyl Ether	<50.	ug/Kg	50.
s 1,3-Dichloropropylene	<50.	ug/Kg	50.
1,4-Dioxane	<200.	ug/Kg	200.
Ethylbenzene	<50.	ug/Kg	50.

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SAMPLE NO. : 6201822
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide	<500.	ug/Kg	500.
Ethylmethacrylate	<1000.	ug/Kg	1000.
2-Hexanone	<100.	ug/Kg	100.
Iodomethane (Methyliodide)	<100.	ug/Kg	100.
Isobutyl alcohol	<100.	ug/Kg	100.
Methacrylonitrile	<500.	ug/Kg	500.
Methyl ethyl ketone	<100.	ug/Kg	100.
Methyl Methacrylate	<500.	ug/Kg	500.
Methyl isobutyl ketone	<100.	ug/Kg	100.
Styrene	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethene	<50.	ug/Kg	50.
Toluene	<50.	ug/Kg	50.
1,1,1-Trichloroethane	<50.	ug/Kg	50.
1,1,2-Trichloroethane	<50.	ug/Kg	50.
Trichloroethene	<50.	ug/Kg	50.
Trichlorofluoromethane	<100.	ug/Kg	100.
1,2,3-Trichloropropane	<50.	ug/Kg	50.
Vinyl Acetate	<1000.	ug/Kg	1000.
Vinyl chloride	<100.	ug/Kg	100.
Xylenes	32.	ug/Kg	10.
1,1,1,2-Tetrachloroethane	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethane	<50.	ug/Kg	50.

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SAMPLE NO. : 6201822
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
REVIEWED BY:

CLIENT SAMPLE ID : #1 Concrete
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Evap. Tank Closure
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: 07-13-92
ANALYSIS DATE .: 07-16-92

Method 8270 - Semi-Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
2-sec-Butyl-4,6-Dinitrophenol ....:	<200.	ug/Kg	200.
Chloro-3-methylphenol .....:	<200.	ug/Kg	200.
Chlorophenol .....:	<200.	ug/Kg	200.
2,4-Dichlorophenol .....:	<200.	ug/Kg	200.
2,6 Dichorophenol .....:	<200.	ug/Kg	200.
2,4-Dimethylphenol .....:	<200.	ug/Kg	200.
4,6-Dinitro-2-Methylphenol .....:	<200.	ug/Kg	200.
2,4-Dinitrophenol .....:	<200.	ug/Kg	200.
2-Methylphenol .....:	<200.	ug/Kg	200.
3-Methylphenol .....:	<100.	ug/Kg	100.
4-Methylphenol .....:	<100.	ug/Kg	100.
2-Nitrophenol .....:	<200.	ug/Kg	200.
4-Nitrophenol .....:	<500.	ug/Kg	500.
Pentachlorophenol .....:	<300.	ug/Kg	300.
Phenol .....:	<200.	ug/Kg	200.
2,3,4,6-Tetrachlorophenol .....:	<100.	ug/Kg	100.
2,4,5-Trichlorophenol .....:	<100.	ug/Kg	100.
2,4,6-Trichlorophenol .....:	<100.	ug/Kg	100.
Acenaphthene .....:	<200.	ug/Kg	200.
Acenaphthylene .....:	<200.	ug/Kg	200.
Acetophenone .....:	<660.	ug/Kg	660.
2-Acetylaminofluorene .....:	<200.	ug/Kg	200.
4-Aminobiphenyl .....:	<200.	ug/Kg	200.
Aniline .....:	<500.	ug/Kg	500.
Anthracene .....:	<200.	ug/Kg	200.
Aramite .....:	<1300.	ug/Kg	1300.
Benzo(a)anthracene .....:	<200.	ug/Kg	200.
nzo(a)pyrene .....:	<200.	ug/Kg	200.
enzo(b)fluoranthene .....:	<660.	ug/Kg	660.
Benzo(ghi)perylene .....:	<200.	ug/Kg	200.

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SAMPLE NO. : 6201822
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
REVIEWED BY:

D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Benzo(K)fluoranthene .....:	<200.	ug/Kg	200.
Benzyl alcohol .....:	<1300.	ug/Kg	1300.
Bis(2-Chloroethoxyl)methane .....:	<200.	ug/Kg	200.
Bis(2-Chloroethyl)ether .....:	<200.	ug/Kg	200.
Bis(2-chloroisopropyl)ether .....:	<200.	ug/Kg	200.
Bis(2-ethylhexyl) phthalate .....:	300.	ug/Kg	200.
4-Bromophenyl phenyl ether .....:	<100.	ug/Kg	100.
Butyl benzyl phthalate .....:	<200.	ug/Kg	200.
Di-n-butyl phthalate .....:	2200.	ug/Kg	100.
2-Chloro-1,3-Butadiene .....:	<100.	ug/Kg	100.
4-Chloroaniline .....:	<200.	ug/Kg	200.
Chlorobenzilate .....:	<3300.	ug/Kg	3300.
2-Chloronaphthalene .....:	<200.	ug/Kg	200.
4-Chlorophenyl phenyl ether .....:	<200.	ug/Kg	200.
Chrysene .....:	<200.	ug/Kg	200.
Diallate (cis of trans) .....:	<660.	ug/Kg	660.
Dibenzo(a,h)anthracene .....:	<200.	ug/Kg	200.
Dibenzofuran .....:	<660.	ug/Kg	660.
1,2-Dichlorobenzene .....:	<200.	ug/Kg	200.
1,3-Dichlorobenzene .....:	<200.	ug/Kg	200.
1,4-Dichlorobenzene .....:	<200.	ug/Kg	200.
3,3'-Dichlorobenzidine .....:	<300.	ug/Kg	300.
Diethyl Phthalate .....:	<200.	ug/Kg	200.
O,O-Diethyl-O-2-Pyrazinyl-- .....:	<1000.	ug/Kg	1000.
Phosphorothioate .....:			
Dimethoate .....:	<1300.	ug/Kg	1300.
a,a Dimethylphenethylamine .....:	4800.	ug/Kg	1000.
Dimethyl phthalate .....:	<200.	ug/Kg	200.
p-Dimethylaminozobenzene .....:	<1000.	ug/Kg	1000.
7,12-Dimethylbenz(a)anthracene ...:	<660.	ug/Kg	660.
3,3'-Dimethylbenzidine .....:	<660.	ug/Kg	660.
M-Dimitrobenzene .....:	<200.	ug/Kg	200.
2,4-Dinitrotoluene .....:	<200.	ug/Kg	200.
2,6-Dinitrotoluene .....:	<200.	ug/Kg	200.
Disulfoton .....:	<660.	ug/Kg	660.
Ethyl Methanesulfonate .....:	<1300.	ug/Kg	1300.
Famphur .....:	<1300.	ug/Kg	1300.
Fluoranthene .....:	<200.	ug/Kg	200.

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SAMPLE NO. : 6201822
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
REVIEWED BY:

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Fluorene	<200.	ug/Kg	200.
Hexachlorobutadiene	<200.	ug/Kg	200.
Hexachlorobenzene	<200.	ug/Kg	200.
Hexachlorocyclopentadiene	<200.	ug/Kg	200.
Hexachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Hexachlorodibenzofurans	<200.	ug/Kg	200.
Hexachloroethane	<200.	ug/Kg	200.
Hexachlorophene	<3300.	ug/Kg	3300.
Hexachloropropene	<660.	ug/Kg	660.
ndo(1,2,3-cd)pyrene	<200.	ug/Kg	200.
sophorone	1400.	ug/Kg	200.
Isosafrole	<660.	ug/Kg	660.
Kepone	<1300.	ug/Kg	1300.
Methapyrilene	<6600.	ug/Kg	6600.
Methylmethansulfonate	<660.	ug/Kg	660.
3-Methylcholanthrene	<200.	ug/Kg	200.
3-Methylcholanthrene	<200.	ug/Kg	200.
2-Methylnaphthalene	<660.	ug/Kg	660.
Napthalene	<200.	ug/Kg	200.
1,4-Naphthoquinone	<660.	ug/Kg	660.
1-Naphthylamine	<660.	ug/Kg	660.
2-Naphthylamine	<200.	ug/Kg	200.
5-Nitro-o-toluidine	<660.	ug/Kg	660.
2-Nitrophenol	<200.	ug/Kg	200.
3-Nitroaniline	<1000.	ug/Kg	1000.
4-Nitroaniline	<200.	ug/Kg	200.
Nitrobenzene	<200.	ug/Kg	200.
4-Nitroquinoline-1-oxide	<2600.	ug/Kg	2600.
N-Nitrosodibutylamine	<200.	ug/Kg	200.
N-Nitroso-di-n-propylamine	<200.	ug/Kg	200.
N-Nitrosodiethylamine	<200.	ug/Kg	200.
N-Nitroso Dimethyl Amine	<400.	ug/Kg	400.
N-Nitrosodiphenylamine	<200.	ug/Kg	200.
N-Nitrosomethylethylamine	<100.	ug/Kg	100.
N-Nitrosomorpholine	<200.	ug/Kg	200.
-Nitrosopiperidine	<1000.	ug/Kg	1000.
-Nitrosopyrrolidine	<2600.	ug/Kg	2600.
Di-n-Octyl Phthalate	<100.	ug/Kg	100.

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SAMPLE NO. : 6201822
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
REVIEWED BY:

D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Pentachlorobenzene ....:	<100.	ug/Kg	100.
Pentachlorodibenzo-p-Dioxins .....:	<200.	ug/Kg	200.
Pentachlorodibenzofurans .....:	<200.	ug/Kg	200.
Pentachloroethane .....:	<100.	ug/Kg	100.
Pentachloronitrobenzene .....:	<1300.	ug/Kg	1300.
Phenacetin .....:	<1300.	ug/Kg	1300.
Phenanthrene .....:	<200.	ug/Kg	200.
Phorate .....:	<660.	ug/Kg	660.
2-Picoline .....:	<500.	ug/Kg	500.
Pronamide .....:	<660.	ug/Kg	660.
Pyrene .....:	<200.	ug/Kg	200.
Pyridine .....:	<1000.	ug/Kg	1000.
Safrole .....:	<660.	ug/Kg	660.
1,2,4,5-Tetrachlorobenzene .....:	<660.	ug/Kg	660.
2,3,7,8-Tetrchlorodibenzo-p-dioxin :	<200.	ug/Kg	200.
Tetrachlorodibenzo-p-dioxins .....:	<200.	ug/Kg	200.
Tetrachlordibenzofurans .....:	<200.	ug/Kg	200.
Tetraethlydithiopyrophosphate ....:	<1000.	ug/Kg	1000.
1,2,4-Trichlorobenzene .....:	<200.	ug/Kg	200.
Methyl parathion .....:	<660.	ug/Kg	660.
Parathion .....:	<660.	ug/Kg	660.
2,4,5-TP (Silvex) .....:	<500.	ug/Kg	500.
2,4,5-T .....:	<500.	ug/Kg	500.

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PAGE : 1 OF 1

CLIENT SAMPLE ID : #2 Concrete
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Evap. Tank Closure

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: --

Inorganic Non-Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Ammenable .....:	7.2	mg/L	1.0	07-22-92
Cyanide, Total(Distillation) .....:	21.	mg/L	1.0	07-22-92
Sulfide,Total .....:	200.	mg/L	0.10	07-16-92

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SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Evap. Tank Closure

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: --

Inorganic Chemistry-Total Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Total Antimony .....:	28.	mg/Kg	2.5	07-17-92
Total Arsenic .....:	63.	mg/Kg	2.5	07-17-92
Total Barium .....:	70.	mg/Kg	5.0	07-17-92
Total Beryllium .....:	<2.5	mg/Kg	2.5	07-17-92
Total Cadmium .....:	<2.5	mg/Kg	2.5	07-17-92
Total Chromium .....:	3.0	mg/Kg	2.5	07-17-92
Total Cobalt .....:	4.5	mg/Kg	2.5	07-17-92
Total Copper .....:	240.	mg/Kg	2.5	07-17-92
Total Lead .....:	<5.0	mg/Kg	5.0	07-17-92
Total Mercury .....:	<0.50	mg/Kg	0.50	07-14-91
Total Nickel .....:	3.6	mg/Kg	2.5	07-17-92
Total Selenium .....:	<2.5	mg/Kg	2.5	07-17-92
Total Silver .....:	18.	mg/Kg	2.5	07-17-92
Total Tin .....:	<2.5	mg/Kg	2.5	07-17-92
Total Thallium .....:	22.	mg/Kg	5.0	07-17-92
Total Vanadium .....:	9.8	mg/Kg	2.5	07-17-92
Total Zinc .....:	150.	mg/Kg	2.5	07-17-92

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555 S. Telshor Ste.310
Las Cruces, NM 88001

SAMPLE NO. : 6201823
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : #2 Concrete
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Evap. Tank Closure
ANALYST .....: S. SMITH

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: 07-13-92
ANALYSIS DATE .: 07-14-92

Method 8080 - Pesticides & PCB'S

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/Kg	10.
4'-DDE	<10.	ug/Kg	10.
,4'-DDT	<10.	ug/Kg	10.
Aldrin	<10.	ug/Kg	10.
alpha-BHC	<10.	ug/Kg	10.
beta-BHC	<10.	ug/Kg	10.
delta-BHC	<10.	ug/Kg	10.
Chlordane	<150.	ug/Kg	150.
Dieldrin	<10.	ug/Kg	10.
Endosulfan I	<10.	ug/Kg	10.
Endosulfan II	<10.	ug/Kg	10.
Endosulfan sulfate	<10.	ug/Kg	10.
Endrin	<10.	ug/Kg	10.
Endrin aldehyde	<10.	ug/Kg	10.
Heptachlor	<10.	ug/Kg	10.
Hetachlor Epoxide	<10.	ug/Kg	10.
Hexachlorobenzene	<25.	ug/Kg	25.
Lindane	<10.	ug/Kg	10.
Methoxychlor	<400.	ug/Kg	400.
Toxaphene	<250.	ug/Kg	250.
PCB 1016	<100.	ug/Kg	100.
PCB 1221	<5000.	ug/Kg	5000.
PCB 1232	<100.	ug/Kg	100.
PCB 1242	<100.	ug/Kg	100.
PCB 1248	<100.	ug/Kg	100.
PCB 1254	<100.	ug/Kg	100.
PCB 1260	<100.	ug/Kg	100.

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SAMPLE NO. : 6201823
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REPORT DATE: 07-16-92
REVIEWED BY:

CLIENT SAMPLE ID : #2 Concrete
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Evap. Tank Closure
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: 07-18-92
ANALYSIS DATE .: 07-18-92

Method 8260 - Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
Acetone	<100.	ug/Kg	100.
Acrolein	<1000.	ug/Kg	1000.
Acrylonitrile	<1000.	ug/Kg	1000.
Benzene	<50.	ug/Kg	50.
Bromodichloromethane	<100.	ug/Kg	100.
Bromoform	<100.	ug/Kg	100.
Bromomethane	<100.	ug/Kg	100.
Carbon Disulfide	<10.	ug/Kg	10.
Carbon tetrachloride	<50.	ug/Kg	50.
Chlorobenzene	<50.	ug/Kg	50.
Dibromochloromethane	<100.	ug/Kg	100.
Chloroethane	<100.	ug/Kg	100.
Chloroform	<50.	ug/Kg	50.
Chloromethane	<100.	ug/Kg	100.
3-Chloropropene	<100.	ug/Kg	100.
1,2-Dibromo-3-chloropropane	<50.	ug/Kg	50.
1,2Dibromoethane	<100.	ug/Kg	100.
Dibromomethane	<250.	ug/Kg	250.
trans-1,4-Dichloro-2-Butene	<100.	ug/Kg	100.
Dichlorodifluoromethane	<250.	ug/Kg	250.
1,1-Dichloroethane	<50.	ug/Kg	50.
1,2-Dichloroethane	<50.	ug/Kg	50.
1,1-Dichloroethene	<50.	ug/Kg	50.
trans 1,2-Dichloroethene	<50.	ug/Kg	50.
Dichloromethane	<50.	ug/Kg	50.
1,2-Dichloropropane	<50.	ug/Kg	50.
Chloroethylvinyl Ether	<50.	ug/Kg	50.
Cis 1,3-Dichloropropylene	<50.	ug/Kg	50.
1,4-Dioxane	<200.	ug/Kg	200.
Ethylbenzene	<50.	ug/Kg	50.

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SAMPLE NO. : 6201823
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
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PAGE : 2 OF 2

D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide ....:	<500.	ug/Kg	500.
Ethylmethacrylate ....:	<1000.	ug/Kg	1000.
2-Hexanone ....:	<100.	ug/Kg	100.
Iodomethane (Methyliodide) ....:	<100.	ug/Kg	100.
Isobutyl alcohol ....:	<100.	ug/Kg	100.
Methacrylonitrile ....:	<500.	ug/Kg	500.
Methyl ethyl ketone ....:	<100.	ug/Kg	100.
Methyl Methacrylate ....:	<500.	ug/Kg	500.
Methyl isobutyl ketone ....:	<100.	ug/Kg	100.
tyrene ....:	<50.	ug/Kg	50.
,1,2,2-Tetrachloroethene ....:	<50.	ug/Kg	50.
Toluene ....:	<50.	ug/Kg	50.
1,1,1-Trichloroethane ....:	<50.	ug/Kg	50.
1,1,2-Trichloroethane ....:	<50.	ug/Kg	50.
Trichloroethene ....:	<50.	ug/Kg	50.
Trichlorofluoromethane ....:	<100.	ug/Kg	100.
1,2,3-Trichloropropane ....:	<50.	ug/Kg	50.
Vinyl Acetate ....:	<1000.	ug/Kg	1000.
Vinyl chloride ....:	<100.	ug/Kg	100.
Xylenes ....:	29.	ug/Kg	10.
1,1,1,2-Tetrachloroethane ....:	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethane ....:	<50.	ug/Kg	50.

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SAMPLE NO. : 6201823
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CLIENT SAMPLE ID : #2 Concrete
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Evap. Tank Closure
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: 07-13-92
ANALYSIS DATE .: 07-16-92

Method 8270 - Semi-Volatile Organics
Appendix IX Compounds

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
2-sec-Butyl-4,6-Dinitrophenol ....:	<200.	ug/Kg	200.
4-Chloro-3-methylphenol .....:	<200.	ug/Kg	200.
2-Chlorophenol .....:	<200.	ug/Kg	200.
2,4-Dichlorophenol .....:	<200.	ug/Kg	200.
2,6 Dichorophenol .....:	<200.	ug/Kg	200.
2,4-Dimethylphenol .....:	<200.	ug/Kg	200.
4,6-Dinitro-2-Methylphenol .....:	<200.	ug/Kg	200.
2,4-Dinitrophenol .....:	<200.	ug/Kg	200.
2-Methylphenol .....:	<200.	ug/Kg	200.
3-Methylphenol .....:	<100.	ug/Kg	100.
4-Methylphenol .....:	<100.	ug/Kg	100.
2-Nitrophenol .....:	770.	ug/Kg	200.
4-Nitrophenol .....:	<500.	ug/Kg	500.
Pentachlorophenol .....:	<300.	ug/Kg	300.
Phenol .....:	1400.	ug/Kg	200.
2,3,4,6-Tetrachlorophenol .....:	<100.	ug/Kg	100.
2,4,5-Trichlorophenol .....:	<100.	ug/Kg	100.
2,4,6-Trichlorophenol .....:	<100.	ug/Kg	100.
Acenaphthene .....:	<200.	ug/Kg	200.
Acenaphthylene .....:	<200.	ug/Kg	200.
Acetophenone .....:	<660.	ug/Kg	660.
2-Acetylaminofluorene .....:	<200.	ug/Kg	200.
4-Aminobiphenyl .....:	<200.	ug/Kg	200.
Aniline .....:	<500.	ug/Kg	500.
Anthracene .....:	<200.	ug/Kg	200.
Aramite .....:	<1300.	ug/Kg	1300.
Benzo(a)anthracene .....:	<200.	ug/Kg	200.
Benzo(a)pyrene .....:	<200.	ug/Kg	200.
Benzo(b)fluoranthene .....:	<660.	ug/Kg	660.
Benzo(ghi)perylene .....:	<200.	ug/Kg	200.

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SAMPLE NO. : 6201823
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REPORT DATE: 07-16-92
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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Benzo(K)fluoranthene .....:	<200.	ug/Kg	200.
Benzyl alcohol .....:	<1300.	ug/Kg	1300.
Bis(2-Chloroethoxyl)methane .....:	<200.	ug/Kg	200.
Bis(2-Chloroethyl)ether .....:	<200.	ug/Kg	200.
Bis(2-chloroisopropyl)ether .....:	<200.	ug/Kg	200.
Bis(2-ethylhexyl) phthalate .....:	<200.	ug/Kg	200.
4-Bromophenyl phenyl ether .....:	<100.	ug/Kg	100.
Butyl benzyl phthalate .....:	<200.	ug/Kg	200.
Di-n-butyl phthalate .....:	1000.	ug/Kg	100.
-Chloro-1,3-Butadiene .....:	<100.	ug/Kg	100.
Chloroaniline .....:	<200.	ug/Kg	200.
Chlorobenzilate .....:	<3300.	ug/Kg	3300.
2-Chloronaphthalene .....:	<200.	ug/Kg	200.
4-Chlorophenyl phenyl ether .....:	<200.	ug/Kg	200.
Chrysene .....:	<200.	ug/Kg	200.
Diallate (cis of trans) .....:	<660.	ug/Kg	660.
Dibenzo(a,h)anthracene .....:	<200.	ug/Kg	200.
Dibenzofuran .....:	<660.	ug/Kg	660.
1,2-Dichlorobenzene .....:	<200.	ug/Kg	200.
1,3-Dichlorobenzene .....:	<200.	ug/Kg	200.
1,4-Dichlorobenzene .....:	<200.	ug/Kg	200.
3,3'-Dichlorobenzidine .....:	<300.	ug/Kg	300.
Diethyl Phthalate .....:	<200.	ug/Kg	200.
O,O-Diethyl-O-2-Pyrazinyl-- .....:	<1000.	ug/Kg	1000.
Phosphorothioate .....:			
Dimethoate .....:	<1300.	ug/Kg	1300.
a,a Dimethylphenethylamine .....:	11000.	ug/Kg	1000.
Dimethyl phthalate .....:	<200.	ug/Kg	200.
p-Dimethylaminozobenzene .....:	<1000.	ug/Kg	1000.
7,12-Dimethylbenz(a)anthracene ...:	<660.	ug/Kg	660.
3,3'-Dimethylbenzidine .....:	<660.	ug/Kg	660.
M-Dimitrobenzene .....:	<200.	ug/Kg	200.
2,4-Dinitrotoluene .....:	<200.	ug/Kg	200.
2,6-Dinitrotoluene .....:	<200.	ug/Kg	200.
Disulfoton .....:	<660.	ug/Kg	660.
hyl Methanesulfonate .....:	<1300.	ug/Kg	1300.
mphur .....:	<1300.	ug/Kg	1300.
Fluoranthene .....:	<200.	ug/Kg	200.

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SAMPLE NO. : 6201823
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Fluorene	<200.	ug/Kg	200.
Hexachlorobutadiene	<200.	ug/Kg	200.
Hexachlorobenzene	<200.	ug/Kg	200.
Hexachlorocyclopentadiene	<200.	ug/Kg	200.
Hexachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Hexachlorodibenzofurans	<200.	ug/Kg	200.
Hexachloroethane	<200.	ug/Kg	200.
Hexachlorophene	<3300.	ug/Kg	3300.
Hexachloropropene	<660.	ug/Kg	660.
Indo(1,2,3-cd)pyrene	<200.	ug/Kg	200.
Isophorone	15000.	ug/Kg	200.
Isosafrole	<660.	ug/Kg	660.
Kepone	<1300.	ug/Kg	1300.
Methapyrilene	<6600.	ug/Kg	6600.
Methylmethansulfonate	<660.	ug/Kg	660.
3-Methylcholanthrene	<200.	ug/Kg	200.
3-Methylcholanthrene	<200.	ug/Kg	200.
2-Methylnaphthalene	<660.	ug/Kg	660.
Napthalene	<200.	ug/Kg	200.
1,4-Naphthoquinone	<660.	ug/Kg	660.
1-Naphthylamine	<660.	ug/Kg	660.
2-Naphthylamine	<200.	ug/Kg	200.
5-Nitro-o-toluidine	<660.	ug/Kg	660.
2-Nitrophenol	<200.	ug/Kg	200.
3-Nitroaniline	<1000.	ug/Kg	1000.
4-Nitroaniline	<200.	ug/Kg	200.
Nitrobenzene	<200.	ug/Kg	200.
4-Nitroquinoline-1-oxide	<2600.	ug/Kg	2600.
N-Nitrosodibutylamine	220.	ug/Kg	200.
N-Nitroso-di-n-propylamine	<200.	ug/Kg	200.
N-Nitrosodiethylamine	<200.	ug/Kg	200.
N-Nitroso Dimethyl Amine	<400.	ug/Kg	400.
N-Nitrosodiphenylamine	<200.	ug/Kg	200.
N-Nitrosomethylethylamine	<100.	ug/Kg	100.
N-Nitrosomorpholine	<200.	ug/Kg	200.
N-Nitrosopiperidine	<1000.	ug/Kg	1000.
N-Nitrosopyrrolidine	<2600.	ug/Kg	2600.
Di-n-Octyl Phthalate	210.	ug/Kg	100.

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SAMPLE NO. : 6201823
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
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D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Pentachlorobenzene .....:	<100.	ug/Kg	100.
Pentachlorodibenzo-p-Dioxins .....:	<200.	ug/Kg	200.
Pentachlorodibenzofurans .....:	<200.	ug/Kg	200.
Pentachloroethane .....:	<100.	ug/Kg	100.
Pentachloronitrobenzene .....:	<1300.	ug/Kg	1300.
Phenacetin .....:	<1300.	ug/Kg	1300.
Phenanthrene .....:	<200.	ug/Kg	200.
Phorate .....:	<660.	ug/Kg	660.
2-Picoline .....:	<500.	ug/Kg	500.
onamide .....:	<660.	ug/Kg	660.
rene .....:	<200.	ug/Kg	200.
Pyridine .....:	<1000.	ug/Kg	1000.
Safrole .....:	<660.	ug/Kg	660.
1,2,4,5-Tetrachlorobenzene .....:	<660.	ug/Kg	660.
2,3,7,8-Tetrchlorodibenzo-p-dioxin :	<200.	ug/Kg	200.
Tetrachlorodibenzo-p-dioxins .....:	<200.	ug/Kg	200.
Tetrachlordibenzofurans .....:	<200.	ug/Kg	200.
Tetraethlydithiopyrophosphate ....:	<1000.	ug/Kg	1000.
1,2,4-Trichlorobenzene .....:	<200.	ug/Kg	200.
Methyl parathion .....:	<660.	ug/Kg	660.
Parathion .....:	<660.	ug/Kg	660.
2,4,5-TP (Silvex) .....:	<500.	ug/Kg	500.
2,4,5-T .....:	<500.	ug/Kg	500.

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SAMPLE NO. : 6201824
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : #3 Concrete
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Evap. Tank Closure

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: --

Inorganic Non-Metals

D A T A T A B L E

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Ammenable .....:	7.3	mg/L	1.0	07-22-92
Cyanide, Total(Distillation) .....:	20.	mg/L	1.0	07-22-92
Sulfide,Total .....:	70.	mg/L	0.10	07-16-92

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PAGE : 1 OF 1

CLIENT SAMPLE ID : #3 Concrete
SAMPLE TYPE .....: Powdered Dry Solid
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SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Evap. Tank Closure

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: --

Inorganic Chemistry-Total Metals

D A T A T A B L E

Parameter	Result	Unit	Detection Limit	Analysis Date
Total Antimony .....:	29.	mg/Kg	2.5	07-17-92
Total Arsenic .....:	75.	mg/Kg	2.5	07-17-92
Total Barium .....:	79.	mg/Kg	5.0	07-17-92
Total Beryllium .....:	<2.5	mg/Kg	2.5	07-17-92
Total Cadmium .....:	<2.5	mg/Kg	2.5	07-17-92
Total Chromium .....:	4.1	mg/Kg	2.5	07-17-92
Total Cobalt .....:	5.5	mg/Kg	2.5	07-17-92
Total Copper .....:	250.	mg/Kg	2.5	07-17-92
Total Lead .....:	<5.0	mg/Kg	5.0	07-17-92
Total Mercury .....:	<0.50	mg/Kg	0.50	07-14-91
Total Nickel .....:	5.8	mg/Kg	2.5	07-17-92
Total Selenium .....:	<2.5	mg/Kg	2.5	07-17-92
Total Silver .....:	18.	mg/Kg	2.5	07-17-92
Total Tin .....:	<2.5	mg/Kg	2.5	07-17-92
Total Thallium .....:	22.	mg/Kg	5.0	07-17-92
Total Vanadium .....:	12.	mg/Kg	2.5	07-17-92
Total Zinc .....:	160.	mg/Kg	2.5	07-17-92

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ANALYST .....: S. SMITH

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SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: 07-13-92
ANALYSIS DATE .: 07-14-92

Method 8080 - Pesticides & PCB'S

DATA TABLE

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/Kg	10.
4,4'-DDE	<10.	ug/Kg	10.
4,4'-DDT	<10.	ug/Kg	10.
Aldrin	<10.	ug/Kg	10.
alpha-BHC	<10.	ug/Kg	10.
beta-BHC	<10.	ug/Kg	10.
delta-BHC	<10.	ug/Kg	10.
Chlordane	<150.	ug/Kg	150.
Dieldrin	<10.	ug/Kg	10.
Endosulfan I	<10.	ug/Kg	10.
Endosulfan II	<10.	ug/Kg	10.
Endosulfan sulfate	<10.	ug/Kg	10.
Endrin	<10.	ug/Kg	10.
Endrin aldehyde	<10.	ug/Kg	10.
Heptachlor	<10.	ug/Kg	10.
Hetachlor Epoxide	<10.	ug/Kg	10.
Hexachlorobenzene	<25.	ug/Kg	25.
Lindane	<10.	ug/Kg	10.
Methoxychlor	<400.	ug/Kg	400.
Toxaphene	<250.	ug/Kg	250.
PCB 1016	<100.	ug/Kg	100.
PCB 1221	<5000.	ug/Kg	5000.
PCB 1232	<100.	ug/Kg	100.
PCB 1242	<100.	ug/Kg	100.
PCB 1248	<100.	ug/Kg	100.
PCB 1254	<100.	ug/Kg	100.
PCB 1260	<100.	ug/Kg	100.

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CLIENT Advanced Sciences Inc.
Attn: David Bollschweiler
555 S. Telshor Ste.310
Las Cruces, NM 88001

SAMPLE NO. : 6201824
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
REVIEWED BY:

CLIENT SAMPLE ID : #3 Concrete
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Evap. Tank Closure
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: 07-18-92
ANALYSIS DATE .: 07-18-92

Method 8260 - Volatile Organics
Appendix IX Compounds

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
Acetone	<100.	ug/Kg	100.
rolein	<1000.	ug/Kg	1000.
rylonitrile	<1000.	ug/Kg	1000.
Benzene	<50.	ug/Kg	50.
Bromodichloromethane	<100.	ug/Kg	100.
Bromoform	<100.	ug/Kg	100.
Bromomethane	<100.	ug/Kg	100.
Carbon Disulfide	<10.	ug/Kg	10.
Carbon tetrachloride	<50.	ug/Kg	50.
Chlorobenzene	<50.	ug/Kg	50.
Dibromochloromethane	<100.	ug/Kg	100.
Chloroethane	<100.	ug/Kg	100.
Chloroform	<50.	ug/Kg	50.
Chloromethane	<100.	ug/Kg	100.
3-Chloropropene	<100.	ug/Kg	100.
1,2-Dibromo-3-chloropropane	<50.	ug/Kg	50.
1,2Dibromoethane	<100.	ug/Kg	100.
Dibromomethane	<250.	ug/Kg	250.
trans-1,4-Dichloro-2-Butene	<100.	ug/Kg	100.
Dichlorodifluoromethane	<250.	ug/Kg	250.
1,1-Dichloroethane	<50.	ug/Kg	50.
1,2-Dichloroethane	<50.	ug/Kg	50.
1,1-Dichloroethene	<50.	ug/Kg	50.
trans 1,2-Dichloroethene	<50.	ug/Kg	50.
Dichloromethane	<50.	ug/Kg	50.
1,2-Dichloropropane	<50.	ug/Kg	50.
Chloroethylvinyl Ether	<50.	ug/Kg	50.
s 1,3-Dichloropropylene	<50.	ug/Kg	50.
,4-Dioxane	<200.	ug/Kg	200.
Ethylbenzene	<50.	ug/Kg	50.

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Las Cruces, NM 88001

SAMPLE NO. : 6201824
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
REVIEWED BY:

CLIENT SAMPLE ID : #3 Concrete
SAMPLE TYPE .....: Powdered Dry Solid
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Evap. Tank Closure
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 07-10-92
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: 07-13-92
ANALYSIS DATE .: 07-16-92

Method 8270 - Semi-Volatile Organics
Appendix IX Compounds

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
2-sec-Butyl-4,6-Dinitrophenol ....:	<200.	ug/Kg	200.
4-Chloro-3-methylphenol .....:	<200.	ug/Kg	200.
2-Chlorophenol .....:	<200.	ug/Kg	200.
2,4-Dichlorophenol .....:	<200.	ug/Kg	200.
2,6 Dichorophenol .....:	<200.	ug/Kg	200.
2,4-Dimethylphenol .....:	<200.	ug/Kg	200.
4,6-Dinitro-2-Methylphenol .....:	<200.	ug/Kg	200.
2,4-Dinitrophenol .....:	<200.	ug/Kg	200.
2-Methylphenol .....:	<200.	ug/Kg	200.
3-Methylphenol .....:	<100.	ug/Kg	100.
4-Methylphenol .....:	<100.	ug/Kg	100.
2-Nitrophenol .....:	<200.	ug/Kg	200.
4-Nitrophenol .....:	<500.	ug/Kg	500.
Pentachlorophenol .....:	<300.	ug/Kg	300.
Phenol .....:	<200.	ug/Kg	200.
2,3,4,6-Tetrachlorophenol .....:	<100.	ug/Kg	100.
2,4,5-Trichlorophenol .....:	<100.	ug/Kg	100.
2,4,6-Trichlorophenol .....:	<100.	ug/Kg	100.
Acenaphthene .....:	<200.	ug/Kg	200.
Acenaphthylene .....:	<200.	ug/Kg	200.
Acetophenone .....:	<660.	ug/Kg	660.
2-Acetylaminofluorene .....:	<200.	ug/Kg	200.
4-Aminobiphenyl .....:	<200.	ug/Kg	200.
Aniline .....:	<500.	ug/Kg	500.
Anthracene .....:	<200.	ug/Kg	200.
Aramite .....:	<1300.	ug/Kg	1300.
Benzo(a)anthracene .....:	<200.	ug/Kg	200.
Benzo(a)pyrene .....:	<200.	ug/Kg	200.
Benzo(b)fluoranthene .....:	<660.	ug/Kg	660.
Benzo(ghi)perylene .....:	<200.	ug/Kg	200.

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SAMPLE NO. : 6201824
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Benzo(K)fluoranthene .....:	<200.	ug/Kg	200.
Benzyl alcohol .....:	<1300.	ug/Kg	1300.
Bis(2-Chloroethoxyl)methane .....:	<200.	ug/Kg	200.
Bis(2-Chloroethyl)ether .....:	<200.	ug/Kg	200.
Bis(2-chloroisopropyl)ether .....:	<200.	ug/Kg	200.
Bis(2-ethylhexyl) phthalate .....:	1100.	ug/Kg	200.
4-Bromophenyl phenyl ether .....:	<100.	ug/Kg	100.
Butyl benzyl phthalate .....:	<200.	ug/Kg	200.
Di-n-butyl phthalate .....:	960.	ug/Kg	100.
-Chloro-1,3-Butadiene .....:	<100.	ug/Kg	100.
-Chloroaniline .....:	<200.	ug/Kg	200.
Chlorobenzilate .....:	<3300.	ug/Kg	3300.
2-Chloronaphthalene .....:	<200.	ug/Kg	200.
4-Chlorophenyl phenyl ether .....:	<200.	ug/Kg	200.
Chrysene .....:	<200.	ug/Kg	200.
Diallate (cis of trans) .....:	<660.	ug/Kg	660.
Dibenzo(a,h)anthracene .....:	<200.	ug/Kg	200.
Dibenzofuran .....:	<660.	ug/Kg	660.
1,2-Dichlorobenzene .....:	<200.	ug/Kg	200.
1,3-Dichlorobenzene .....:	<200.	ug/Kg	200.
1,4-Dichlorobenzene .....:	<200.	ug/Kg	200.
3,3'-Dichlorobenzidine .....:	<300.	ug/Kg	300.
Diethyl Phthalate .....:	<200.	ug/Kg	200.
O,O-Diethyl-O-2-Pyrazinyl-- .....:	<1000.	ug/Kg	1000.
Phosphorothioate .....:			
Dimethoate .....:	<1300.	ug/Kg	1300.
a,a Dimethylphenethylamine .....:	4600..	ug/Kg	1000.
Dimethyl phthalate .....:	<200.	ug/Kg	200.
p-Dimethylaminozobenzene .....:	<1000.	ug/Kg	1000.
7,12-Dimethylbenz(a)anthracene ...:	<660.	ug/Kg	660.
3,3'-Dimethylbenzidine .....:	<660.	ug/Kg	660.
M-Dimitrobenzene .....:	<200.	ug/Kg	200.
2,4-Dinitrotoluene .....:	<200.	ug/Kg	200.
2,6-Dinitrotoluene .....:	<200.	ug/Kg	200.
Disulfoton .....:	<660.	ug/Kg	660.
hyl Methanesulfonate .....:	<1300.	ug/Kg	1300.
amphur .....:	<1300.	ug/Kg	1300.
Fluoranthene .....:	<200.	ug/Kg	200.

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SAMPLE NO. : 6201824
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Fluorene	<200.	ug/Kg	200.
Hexachlorobutadiene	<200.	ug/Kg	200.
Hexachlorobenzene	<200.	ug/Kg	200.
Hexachlorocyclopentadiene	<200.	ug/Kg	200.
Hexachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Hexachlorodibenzofurans	<200.	ug/Kg	200.
Hexachloroethane	<200.	ug/Kg	200.
Hexachlorophene	<3300.	ug/Kg	3300.
Hexachloropropene	<660.	ug/Kg	660.
Indo(1,2,3-cd)pyrene	<200.	ug/Kg	200.
Isophorone	3600.	ug/Kg	200.
Isosafrole	<660.	ug/Kg	660.
Kepone	<1300.	ug/Kg	1300.
Methapyrilene	<6600.	ug/Kg	6600.
Methylmethansulfonate	<660.	ug/Kg	660.
3-Methylcholanthrene	<200.	ug/Kg	200.
3-Methylcholanthrene	<200.	ug/Kg	200.
2-Methylnaphthalene	<660.	ug/Kg	660.
Napthalene	<200.	ug/Kg	200.
1,4-Naphthoquinone	<660.	ug/Kg	660.
1-Naphthylamine	<660.	ug/Kg	660.
2-Naphthylamine	<200.	ug/Kg	200.
5-Nitro-o-toluidine	<660.	ug/Kg	660.
2-Nitrophenol	<200.	ug/Kg	200.
3-Nitroaniline	<1000.	ug/Kg	1000.
4-Nitroaniline	<200.	ug/Kg	200.
Nitrobenzene	<200.	ug/Kg	200.
4-Nitroquinoline-1-oxide	<2600.	ug/Kg	2600.
N-Nitrosodibutylamine	<200.	ug/Kg	200.
N-Nitroso-di-n-propylamine	450.	ug/Kg	200.
N-Nitrosodiethylamine	<200.	ug/Kg	200.
N-Nitroso Dimethyl Amine	<400.	ug/Kg	400.
N-Nitrosodiphenylamine	<200.	ug/Kg	200.
N-Nitrosomethylethylamine	<100.	ug/Kg	100.
N-Nitrosomorpholine	<200.	ug/Kg	200.
N-Nitrosopiperidine	<1000.	ug/Kg	1000.
N-Nitrosopyrrolidine	<2600.	ug/Kg	2600.
Di-n-Octyl Phthalate	<100.	ug/Kg	100.

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SAMPLE NO. : 6201824
INVOICE NO.: 62120559
REPORT DATE: 07-16-92
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PAGE : 4 OF 4

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Pentachlorobenzene	<100.	ug/Kg	100.
Pentachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Pentachlorodibenzofurans	<200.	ug/Kg	200.
Pentachloroethane	<100.	ug/Kg	100.
Pentachloronitrobenzene	<1300.	ug/Kg	1300.
Phenacetin	<1300.	ug/Kg	1300.
Phenanthrene	<200.	ug/Kg	200.
Phorate	<660.	ug/Kg	660.
2-Picoline	<500.	ug/Kg	500.
onamide	<660.	ug/Kg	660.
rene	<200.	ug/Kg	200.
Pyridine	<1000.	ug/Kg	1000.
Safrole	<660.	ug/Kg	660.
1,2,4,5-Tetrachlorobenzene	<660.	ug/Kg	660.
2,3,7,8-Tetrchlorodibenzo-p-dioxin :	<200.	ug/Kg	200.
Tetrachlorodibenzo-p-dioxins	<200.	ug/Kg	200.
Tetrachlordibenzofurans	<200.	ug/Kg	200.
Tetraethlydithiopyrophosphate	<1000.	ug/Kg	1000.
1,2,4-Trichlorobenzene	<200.	ug/Kg	200.
Methyl parathion	<660.	ug/Kg	660.
Parathion	<660.	ug/Kg	660.
2,4,5-TP (Silvex)	<500.	ug/Kg	500.
2,4,5-T	<500.	ug/Kg	500.

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Las Cruces, NM 88001

SAMPLE NO. : 6201925
INVOICE NO.: 62120559
REPORT DATE: 07-21-92
REVIEWED BY:

CLIENT SAMPLE ID : 8270 Extraction Blank
SAMPLE TYPE .....: --
SAMPLED BY .....: --
SUBMITTED BY ....: --
SAMPLE SOURCE ...: --
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: --
SUBMITTAL DATE : 07-14-92
EXTRACTION DATE: 06-14-92
ANALYSIS DATE .: 06-16-92

Method 8270 - Semi-Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
2-sec-Butyl-4,6-Dinitrophenol ....:	<200.	ug/Kg	200.
4-Chloro-3-methylphenol .....:	<200.	ug/Kg	200.
2-Chlorophenol .....:	<200.	ug/Kg	200.
2,4-Dichlorophenol .....:	<200.	ug/Kg	200.
2,6 Dichorophenol .....:	<200.	ug/Kg	200.
2,4-Dimethylphenol .....:	<200.	ug/Kg	200.
4,6-Dinitro-2-Methylphenol .....:	<200.	ug/Kg	200.
2,4-Dinitrophenol .....:	<200.	ug/Kg	200.
2-Methylphenol .....:	<200.	ug/Kg	200.
3-Methylphenol .....:	<100.	ug/Kg	100.
4-Methylphenol .....:	<100.	ug/Kg	100.
2-Nitrophenol .....:	<200.	ug/Kg	200.
4-Nitrophenol .....:	<500.	ug/Kg	500.
Pentachlorophenol .....:	<300.	ug/Kg	300.
Phenol .....:	<200.	ug/Kg	200.
2,3,4,6-Tetrachlorophenol .....:	<100.	ug/Kg	100.
2,4,5-Trichlorophenol .....:	<100.	ug/Kg	100.
2,4,6-Trichlorophenol .....:	<100.	ug/Kg	100.
Acenaphthene .....:	<200.	ug/Kg	200.
Acenaphthylene .....:	<200.	ug/Kg	200.
Acetophenone .....:	<660.	ug/Kg	660.
2-Acetylaminofluorene .....:	<200.	ug/Kg	200.
4-Aminobiphenyl .....:	<200.	ug/L	200.
Aniline .....:	<500.	ug/Kg	500.
Anthracene .....:	<200.	ug/Kg	200.
Aramite .....:	<1300.	ug/Kg	1300.
Benzo(a)anthracene .....:	<200.	ug/Kg	200.
Benzo(a)pyrene .....:	<200.	ug/Kg	200.
Benzo(b)fluoranthene .....:	<660.	ug/Kg	660.
Benzo(ghi)perylene .....:	<200.	ug/Kg	200.

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SAMPLE NO. : 6201925
INVOICE NO.: 62120559
REPORT DATE: 07-21-92
REVIEWED BY:

D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Benzo(K)fluoranthene .....:	<200.	ug/Kg	200.
Benzyl alcohol .....:	<1300.	ug/Kg	1300.
Bis(2-Chloroethoxyl)methane .....:	<200.	ug/Kg	200.
Bis(2-Chloroethyl)ether .....:	<200.	ug/Kg	200.
Bis(2-chloroisopropyl)ether .....:	<200.	ug/Kg	200.
Bis(2-ethylhexyl) phthalate .....:	<200.	ug/Kg	200.
4-Bromophenyl phenyl ether .....:	<100.	ug/Kg	100.
Butyl benzyl phthalate .....:	<200.	ug/Kg	200.
Di-n-butyl phthalate .....:	3000.	ug/Kg	100.
Chloro-1,3-Butadiene .....:	<100.	ug/Kg	100.
Chloroaniline .....:	<200.	ug/Kg	200.
Chlorobenzilate .....:	<3300.	ug/Kg	3300.
2-Chloronaphthalene .....:	<200.	ug/Kg	200.
4-Chlorophenyl phenyl ether .....:	<200.	ug/Kg	200.
Chrysene .....:	<200.	ug/Kg	200.
Diallate (cis of trans) .....:	<660.	ug/Kg	660.
Dibenzo(a,h)anthracene .....:	<200.	ug/Kg	200.
Dibenzofuran .....:	<660.	ug/Kg	660.
1,2-Dichlorobenzene .....:	<200.	ug/Kg	200.
1,3-Dichlorobenzene .....:	<200.	ug/Kg	200.
1,4-Dichlorobenzene .....:	<200.	ug/Kg	200.
3,3'-Dichlorobenzidine .....:	<300.	ug/Kg	300.
Diethyl Phthalate .....:	<200.	ug/Kg	200.
O,O-Diethyl-O-2-Pyrazinyl--- .....:	<1000.	ug/Kg	1000.
Phosphorothioate .....:			
Dimethoate .....:	<1300.	ug/Kg	1300.
a,a Dimethylphenethylamine .....:	<1000.	ug/Kg	1000.
Dimethyl phthalate .....:	<200.	ug/Kg	200.
p-Dimethylaminozobenzene .....:	<1000.	ug/Kg	1000.
7,12-Dimethylbenz(a)anthracene ...:	<660.	ug/Kg	660.
3,3'-Dimethylbenzidine .....:	<660.	ug/Kg	660.
M-Dimitrobenzene .....:	<200.	ug/Kg	200.
2,4-Dinitrotoluene .....:	<200.	ug/Kg	200.
2,6-Dinitrotoluene .....:	<200.	ug/Kg	200.
Disulfoton .....:	<660.	ug/Kg	660.
hyl Methanesulfonate .....:	<1300.	ug/Kg	1300.
amphur .....:	<1300.	ug/Kg	1300.
Fluoranthene .....:	<200.	ug/Kg	200.

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SAMPLE NO. : 6201925
INVOICE NO.: 62120559
REPORT DATE: 07-21-92
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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Fluorene	<200.	ug/Kg	200.
Hexachlorobutadiene	<200.	ug/Kg	200.
Hexachlorobenzene	<200.	ug/Kg	200.
Hexachlorocyclopentadiene	<200.	ug/Kg	200.
Hexachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Hexachlorodibenzofurans	<200.	ug/Kg	200.
Hexachloroethane	<200.	ug/Kg	200.
Hexachlorophene	<3300.	ug/Kg	3300.
Hexachloropropene	<660.	ug/Kg	660.
Indo(1,2,3-cd)pyrene	<200.	ug/Kg	200.
Isophorone	<200.	ug/Kg	200.
Isosafrole	<660.	ug/Kg	660.
Kepone	<1300.	ug/Kg	1300.
Methapyrilene	<6600.	ug/Kg	6600.
Methylmethansulfonate	<660.	ug/Kg	660.
3-Methylcholanthrene	<200.	ug/Kg	200.
3-Methylcholanthrene	<200.	ug/Kg	200.
2-Methylnaphthalene	<660.	ug/Kg	660.
Napthalene	<200.	ug/Kg	200.
1,4-Naphthoquinone	<660.	ug/Kg	660.
1-Naphthylamine	<660.	ug/Kg	660.
2-Naphthylamine	<200.	ug/Kg	200.
5-Nitro-o-toluidine	<660.	ug/Kg	660.
2-Nitrophenol	<200.	ug/Kg	200.
3-Nitroaniline	<1000.	ug/Kg	1000.
4-Nitroaniline	<200.	ug/Kg	200.
Nitrobenzene	<200.	ug/Kg	200.
4-Nitroquinoline-1-oxide	<2600.	ug/Kg	2600.
N-Nitrosodibutylamine	<200.	ug/Kg	200.
N-Nitroso-di-n-propylamine	<200.	ug/Kg	200.
N-Nitrosodiethylamine	<200.	ug/Kg	200.
N-Nitroso Dimethyl Amine	<400.	ug/Kg	400.
N-Nitrosodiphenylamine	<200.	ug/Kg	200.
N-Nitrosomethylethylamine	<100.	ug/Kg	100.
N-Nitrosomorpholine	<200.	ug/Kg	200.
N-Nitrosopiperidine	<1000.	ug/Kg	1000.
N-Nitrosopyrrolidine	<2600.	ug/Kg	2600.
Di-n-Octyl Phthalate	<100.	ug/Kg	100.

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SAMPLE NO. : 6201925
INVOICE NO.: 62120559
REPORT DATE: 07-21-92
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PAGE : 4 OF 4

D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Pentachlorobenzene	<100.	ug/Kg	100.
Pentachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Pentachlorodibenzofurans	<200.	ug/Kg	200.
Pentachloroethane	<100.	ug/Kg	100.
Pentachloronitrobenzene	<1300.	ug/Kg	1300.
Phenacetin	<1300.	ug/Kg	1300.
Phenanthrene	<200.	ug/Kg	200.
Phorate	<660.	ug/Kg	660.
2-Picoline	<500.	ug/Kg	500.
onamide	<660.	ug/Kg	660.
rene	<200.	ug/Kg	200.
Pyridine	<1000.	ug/Kg	1000.
Safrole	<660.	ug/Kg	660.
1,2,4,5-Tetrachlorobenzene	<660.	ug/Kg	660.
2,3,7,8-Tetrachlorodibenzo-p-dioxin:	<200.	ug/Kg	200.
Tetrachlorodibenzo-p-dioxins	<200.	ug/Kg	200.
Tetrachlordibenzofurans	<200.	ug/Kg	200.
Tetraethlydithiopyrophosphate	<1000.	ug/Kg	1000.
1,2,4-Trichlorobenzene	<200.	ug/Kg	200.
Methyl parathion	<660.	ug/Kg	660.
Parathion	<660.	ug/Kg	660.
2,4,5-TP (Silvex)	<500.	ug/Kg	500.
2,4,5-T	<500.	ug/Kg	500.

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El Paso • 10737 Gateway West #100 • TX 79935 • (915) 592-3591 • fax 592-3594

CHAIN OF CUSTODY RECORD

CLIENT	ADDRESS
NSI / ES-E	555 S Telshor Suite 112
	Las Cruces NM 88001
TELEPHONE	**PROJECT** / **JOB/P.O. NO.**
522-7229 678-5361	INAP CLOSURE 400-09

• REFER TO FEE SCHEDULE FOR ANALYSES SELECTION •

SAMPLER (SIGNATURE): [illegible]
SAMPLER (PLEASE PRINT): DAVID [illegible]

SAMPLE TYPE CODES: S – Soil, W – Water, O – Oil, G – Sludge, T – Travel Blank, F – Field Blank, X – Other

CLIENT SAMPLE IDENTIFICATION NUMBER	DATE	TIME	SAMPLE LOCATION	HOLD	COMPOSITE	GRAB	SAMPLE TYPE	NUMBER OF CONTAINERS	METALS	PESTICIDES/PCB	HERBICIDES	CYANIDES	WATER 624						COMMENTS	LABORATORY SAMPLE IDENTIFICATION NUMBER
TANK RINSATE #1	7/21/92	10:17	INNER TANK / WATER			✓	W	1	✓										40CLR 2/1 AIR. IX	
" " #2	"	10:15	" "			✓	W	1		✓									"	
" " #3	"	10:20	" "			✓	W	1			✓								"	
" " #4	"	11:22	" "			✓	W	1				✓							"	
" " #5	"	10:23	" "			✓	W	1					✓						"	

RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	REMARKS
[illegible]	[illegible]	7/22/92		
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	

623 White - Tes[illegible] [illegible]oratory; Yellow - Department Job File; Pink - Client

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El Paso • 10737 Gateway West #100 • TX 79935 • 915 592 3591 • fax 592 3594

CHAIN CUSTODY RECORD

CLIENT	ADDRESS
ADVANCED SCIENCES, Inc.	555 S. TELSHOR SUITE 310 LAS CRUCES NM 88001
TELEPHONE: 505-522-7229	PROJECT: EVAP CLOSURE 400-09 / JOB P.O. NO.

• REFER TO FEE SCHEDULE FOR ANALYSES SELECTION •

SAMPLER (SIGNATURE): D Bollschweiler
SAMPLER (PLEASE PRINT): DAVID BOLLSCHWEILER

SAMPLE TYPE CODES: S – SOIL, G – SLUDGE, X – OTHER, W – WATER, T – TRAVEL BLANK, O – OIL, F – FIELD BLANK

CLIENT SAMPLE IDENTIFICATION NUMBER	DATE	TIME	SAMPLE LOCATION	HOLD	COMPOSITE	GRAB	SAMPLE TYPE	NUMBER OF CONTAINERS	METALS	PESTICIDES/PCB	[redacted]	CYANIDES	[redacted]	8260	8270	[redacted]			COMMENTS	LABORATORY SAMPLE IDENTIFICATION NUMBER
POTABLE H2O #1	7/01/92	8:55	SPIGOT/HOUSE			✓	W	1	✓											6201750
" #2		9:00	" "			✓	W	1		✓										6201751
" #3		9:05	" "			✓	W	1			[redacted]			✓		✓				6201752
" #4		9:08	" "			✓	W	1				✓								6201753
" #5		9:10	" "			✓	W	1					[redacted]		✓					6201754
TANK RINSATE #1	7/01/92	10:05	INNER TANK/HOUSE			✓	W	1	✓											6201755
TANK RINSEATE #2	"	10:08	" "			✓	W	1		✓										6201756
TANK RINSEATE #3	"	10:10	" "			✓	W	1			[redacted]			✓		✓				6201757
TANK RINSEATE #4	"	10:12	" "			✓	W	1				✓								6201758
TANK RINSEATE #5	"	10:15	" "			✓	W	1					[redacted]		✓					6201759
POTABLE H2O #11	7/01/92	12:20	SPIGOT			✓	W	1					[redacted]	✓	✓					6201760
EXTRACTION BLANK	-8270		-method																Extraction blank method 8270	8201924

RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	REMARKS
Jerome L Kaspereit	Keith Seager	7/7	1700	APPENDIX. 9
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	
Fed X 3151920531	Brigid Thomson	7/02/92	1030	

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CHAIN OF CUSTODY RECORD

CLIENT	ADDRESS	
ANALYTICAL SCIENCES, INC.	555 S. TELSHOR SUITE "I" LAS CRUCES NM 88011	
TELEPHONE: 505-522-7229	PROJECT: EVAP COVERS 400-07	JOB/P.O. NO

• REFER TO FEE SCHEDULE FOR ANALYSES SELECTION •

SAMPLER (SIGNATURE): [signature]
SAMPLER (PLEASE PRINT): DAVID BOLLSCHWEILER

SAMPLE TYPE CODES: S – SOIL, W – WATER, O – OIL, G – SLUDGE, T – TRAVEL BLANK, F – FIELD BLANK, X – OTHER

CLIENT SAMPLE IDENTIFICATION NUMBER	DATE	TIME	SAMPLE LOCATION	HOLD	COMPOSITE	GRAB	SAMPLE TYPE	NUMBER OF CONTAINERS	METALS	PESTICIDES/PCB	HERBICIDES	CYANIDES	TOTAL PHENOLS							COMMENTS	LABORATORY SAMPLE IDENTIFICATION NUMBER
EVAPCOVER #1	7/1/92	9:55	APRICOT/HOME			✓	W	1	✓												
" #2		9:00	" "			✓	W	1		✓											
" #3		9:05	" "			✓	W	1			✓										
" #4		9:08	" "			✓	W	1				✓									
" #5		9:10	" "			✓	W	1					✓								
TANK RINSATE #1	7/01/92	10:05	INNER TANK/HOME			✓	W	1	✓												
TANK RINSATE #2	"	10:09	" "			✓	W	1		✓											
TANK RINSATE #3	"	10:10	" "			✓	W	1			✓										
TANK RINSATE #4	"	10:12	" "			✓	W	1				✓									
TANK RINSATE #5	"	10:15	" "			✓	W	1					✓								
EVAPCOVER #11	7/1/92	12:20	APRICOT			✓	W	1					✓								

RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	REMARKS
[signature]	[signature]	7/7	1700	
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	

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CLIENT Advanced Sciences Inc.
Attn: David Bollschweiler
555 S. Telshor Ste. 310
Las Cruces, NM 88001

SAMPLE NO. : 6201750
INVOICE NO.: 62120526
REPORT DATE: 07-27-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : Potable H20 #1
SAMPLE TYPE .....: Water
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Spigot/HWSF

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 07-01-92
SUBMITTAL DATE : 07-02-92
EXTRACTION DATE: --

Inorganic Chemistry - Total Metals

D A T A T A B L E

Parameter	Result	Unit	Detection Limit	Analysis Date
Total Antimony .....:	<0.05	mg/L	0.05	07-24-92
Total Arsenic .....:	<0.01	mg/L	0.01	07-13-92
Total Barium .....:	0.51	mg/L	0.20	07-09-92
Total Beryllium .....:	<0.05	mg/L	0.05	07-24-92
Total Cadmium .....:	<0.05	mg/L	0.05	07-09-92
Total Chromium .....:	<0.10	mg/L	0.10	07-09-92
Total Cobalt .....:	<0.05	mg/L	0.05	07-24-92
Total Copper .....:	<0.05	mg/L	0.05	07-20-92
Total Lead .....:	<0.20	mg/L	0.20	07-09-92
Total Mercury .....:	<0.01	mg/L	0.01	07-24-92
Total Nickel .....:	<0.10	mg/L	0.10	07-20-92
Total Selenium .....:	<0.05	mg/L	0.05	07-24-92
Total Silver .....:	<0.05	mg/L	0.05	07-09-92
Total Tin .....:	<0.05	mg/L	0.05	07-24-92
Total Thallium .....:	<0.10	mg/L	0.10	07-24-92
Total Vanadium .....:	<0.05	mg/L	0.05	07-24-92
Total Zinc .....:	<0.05	mg/L	0.05	07-20-92

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CLIENT Advanced Sciences Inc.
Attn: David Bollschweiler
555 S. Telshor Ste. 310
Las Cruces, NM 88001

SAMPLE NO. : 6201751
INVOICE NO.: 62120526
REPORT DATE: 07-17-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : Potable H20 #2
SAMPLE TYPE .....: Water
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Spigot/HWSF
ANALYST .....: S. SMITH

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 07-01-92
SUBMITTAL DATE : 07-02-92
EXTRACTION DATE: 07-06-92
ANALYSIS DATE .: 07-14-92

Method 8080 - Pesticides & PCB'S

DATA TABLE

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<0.10	ug/L	0.10
4,4'-DDE	<0.10	ug/L	0.10
4,4'-DDT	<0.10	ug/L	0.10
Aldrin	<0.10	ug/L	0.10
alpha-BHC	<0.10	ug/L	0.10
beta-BHC	<0.10	ug/L	0.10
delta-BHC	<0.10	ug/L	0.10
Chlordane	<1.5	ug/L	1.5
Dieldrin	<0.10	ug/L	0.10
Endosulfan I	<0.10	ug/L	0.10
Endosulfan II	<0.10	ug/L	0.10
Endosulfan sulfate	<0.10	ug/L	0.10
Endrin	<0.10	ug/L	0.10
Endrin aldehyde	<0.10	ug/L	0.10
Heptachor	<0.10	ug/L	0.10
Hetachlor Epoxide	<0.10	ug/L	0.10
Hexachlorobenzene	<0.5	ug/L	0.5
Lindane	<0.10	ug/L	0.10
Methoxychlor	<0.40	ug/L	0.40
Toxaphene	<2.5	ug/L	2.5
PCB 1016	<1.0	ug/L	1.0
PCB 1221	<50.	ug/L	50.
PCB 1232	<1.0	ug/L	1.0
PCB 1242	<1.0	ug/L	1.0
PCB 1248	<1.0	ug/L	1.0
PCB 1254	<1.0	ug/L	1.0
PCB 1260	<1.0	ug/L	1.0

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SAMPLE NO. : 6201752
INVOICE NO.: 62120526
REPORT DATE: 07-16-92
REVIEWED BY:
PAGE : 1 OF 2

CLIENT SAMPLE ID : Potable H20 #3
SAMPLE TYPE .....: Water
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Spigot/HWSF
ANALYST .....: I. Hrabovksy

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 07-01-92
SUBMITTAL DATE : 07-02-92
EXTRACTION DATE: 07-09-92
ANALYSIS DATE .: 07-09-92

Method 8260 - Volatile Organics
Appendix IX Compounds

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
Acetone	<10.	ug/L	10.
Acrolein	<100.	ug/L	100.
Acrylonitrile	<100.	ug/L	100.
Benzene	<5.0	ug/L	5.0
Bromodichloromethane	<10.	ug/L	10.
Bromoform	<10.	ug/L	10.
Bromomethane	<10.	ug/L	10.
Carbon Disulfide	<1.0	ug/L	1.0
Carbon tetrachloride	<5.0	ug/L	5.0
Chlorobenzene	<5.0	ug/L	5.0
Dibromochloromethane	<10.	ug/L	10.
Chloroethane	<10.	ug/L	10.
Chloroform	<5.0	ug/L	5.0
Chloromethane	<10.	ug/L	10.
3-Chloropropene	<10.	ug/L	10.
Dibromochloropropane	<5.0	ug/L	5.0
1,2-Dibromoethane (EDB)	<10.	ug/L	10.
Dibromomethane	<25.	ug/L	25.
Trans-1,4-Dichloro-2-Butene	<10.	ug/L	10.
Dichlorodifluoromethane	<25.	ug/L	25.
1,1-Dichloroethane	<5.0	ug/L	5.0
1,2-Dichloroethane	<5.0	ug/L	5.0
1,1-Dichloroethene	<5.0	ug/L	5.0
trans 1,2-Dichloroethene	<5.0	ug/L	5.0
Dichloromethane	<5.0	ug/L	5.0
1,2-Dichloropropane	<5.0	ug/L	5.0
cis 1,3-Dichloropropylene	<5.0	ug/L	5.0
trans 1,3-Dichloropropylene	<5.0	ug/L	5.0
1,4-Dioxane	<20.	ug/L	20.
Ethylbenzene	<5.0	ug/L	5.0

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SAMPLE NO. : 6201752
INVOICE NO.: 62120526
REPORT DATE: 07-16-92
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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide ..... :	<100.	ug/L	100.
Ethylmethacrylate ..... :	<100.	ug/L	100.
2-Hexanone ..... :	<10.	ug/L	10.
Iodomethane (Methyliodide) ..... :	<10.	ug/L	10.
Isobutyl alcohol ..... :	<10.	ug/L	10.
Methacrylonitrile ..... :	<50.	ug/L	50.
Methyl ethyl ketone ..... :	<10.	ug/L	10.
Methyl Methacrylate ..... :	<50.	ug/L	50.
Methyl isobutyl ketone ..... :	<10.	ug/L	10.
Styrene ..... :	<5.0	ug/L	5.0
1,1,2,2-Tetrachloroethene ..... :	<5.0	ug/L	5.0
Toluene ..... :	<5.0	ug/L	5.0
1,1,1-Trichloroethane ..... :	<5.0	ug/L	5.0
1,1,2-Trichloroethane ..... :	<5.0	ug/L	5.0
Trichloroethene ..... :	<5.0	ug/L	5.0
Trichlorofluoromethane ..... :	<10.	ug/L	10.
1,2,3-Trichloropropane ..... :	<5.0	ug/L	5.0
Vinyl Acetate ..... :	<100.	ug/L	100.
Vinyl chloride ..... :	<10.	ug/L	10.
Xylenes ..... :	<1.0	ug/L	1.0

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SAMPLE NO. : 6201752
INVOICE NO.: 62120526
REPORT DATE: 07-16-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : Potable H20 #3
SAMPLE TYPE .....: Water
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Spigot/HWSF

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 07-01-92
SUBMITTAL DATE : 07-02-92
EXTRACTION DATE: --

Inorganic Non-Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Sulfide,Total .....:	<0.10	mg/L	0.10	07-16-92

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Las Cruces, NM 88001

SAMPLE NO. : 6201753
INVOICE NO.: 62120526
REPORT DATE: 07-23-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : Potable H20 #4
SAMPLE TYPE .....: Water
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Spigot/HWSF

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 07-01-92
SUBMITTAL DATE : 07-02-92
EXTRACTION DATE: --

Inorganic Non-Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Ammenable .....:	<1.0	mg/L	1.0	07-15-92
Cyanide, Total(Distillation) .....:	<1.0	mg/L	1.0	07-15-92

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CLIENT Advanced Sciences Inc.
Attn: David Bollschweiler
555 S. Telshor Ste. 310
Las Cruces, NM 88001

SAMPLE NO. : 6201754
INVOICE NO.: 62120526
REPORT DATE: 07-16-92
REVIEWED BY:
PAGE : 1 OF 4

CLIENT SAMPLE ID : Potable H20 #5
SAMPLE TYPE .....: Water
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Spigot/HWSF
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 07-01-92
SUBMITTAL DATE : 07-02-92
EXTRACTION DATE: 07-06-92
ANALYSIS DATE .: 07-08-92

Method 8270 - Semi Volatile Organics
Appendix IX Compounds

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
2-sec-Butyl-4,6-Dinitrophenol ....:	<20.	ug/L	20.
-Chloro-3-methylphenol .....:	<20.	ug/L	20.
-Chlorophenol .....:	<10.	ug/L	10.
2,4-Dichlorophenol .....:	<10.	ug/L	10.
2,6 Dichorophenol .....:	<10.	ug/L	10.
2,4-Dimethylphenol .....:	<10.	ug/L	10.
4,6-Dinitro-2-Methylphenol .....:	<20.	ug/L	20.
2,4-Dinitrophenol .....:	<10.	ug/L	10.
2-Methylphenol .....:	<10.	ug/L	10.
3-Methylphenol .....:	<10.	ug/L	10.
4-Methylphenol .....:	<10.	ug/L	10.
2-Nitrophenol .....:	<10.	ug/L	10.
4-Nitrophenol .....:	<50.	ug/L	50.
Pentachlorophenol .....:	<10.	ug/L	10.
Phenol .....:	<10.	ug/L	10.
2,3,4,6-Tetrachlorophenol .....:	<10.	ug/L	10.
2,4,5-Trichlorophenol .....:	<10.	ug/L	10.
2,4,6-Trichlorophnol .....:	<10.	ug/L	10.
Acenaphthene (H2O) .....:	<10.	ug/L	10.
Acetophenone .....:	<10.	ug/L	10.
Acenaphthylene .....:	<10.	ug/L	10.
2-Acetylaminofluorene .....:	<10.	ug/L	10.
4-Aminobiphenyl .....:	<20.	ug/L	20.
Aniline .....:	<50.	ug/L	50.
Anthracene (H2O) .....:	<10.	ug/L	10.
Aramite (H2O) .....:	<50.	ug/L	50.
Benzo(a)anthracene (H2O) .....:	<10.	ug/L	10.
nzo(a)pyrene (H2O) .....:	<10.	ug/L	10.
Benzo(b)fluoranthene (H2O) .....:	<30.	ug/L	30.
Benzo(k)fluoranthene (H2O) .....:	<10.	ug/L	10.

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CLIENT Advanced Sciences Inc.
Attn: David Bollschweiler
555 S. Telshor Ste. 310
Las Cruces, NM 88001

SAMPLE NO. : 6201754
INVOICE NO.: 62120526
REPORT DATE: 07-16-92
REVIEWED BY:

D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Benzyl alcohol (H2O)	<130.	ug/L	130.
Bis(2-Chloroethoxy)methane (H2O) .:	<10.	ug/L	10.
Bis(2-Chloroethyl)ether (H2O) ....:	<10.	ug/L	10.
Bis(2-chloroisopropyl)ether .....:	<10.	ug/L	10.
Bis(2-ethylhexyl) phthalate (H2O) :	40.	ug/L	10.
4-Bromophenyl phenyl ether .....:	<10.	ug/L	10.
Butyl benzyl phthalate (H2O) .....:	<10.	ug/L	10.
Di-n-butyl phthalate (H2O) .....:	<10.	ug/L	10.
2-Chloro-1,3-Butadiene .....:	<20.	ug/L	20.
4-Chloroaniline .....:	<20.	ug/L	20.
Chlorobenzilate .....:	<100.	ug/L	100.
2-Chloronaphthalene .....:	<10.	ug/L	10.
4-Chlorophenyl phenyl ether .....:	<10.	ug/L	10.
Chrysene (H2O) .....:	<10.	ug/L	10.
Diallate (cis of trans) .....:	<50.	ug/L	50.
Dibenzo(a,h)anthracene (H2O) .....:	<10.	ug/L	10.
Dibenzofuran .....:	<50.	ug/L	50.
1,2-Dichlorobenzene .....:	<10.	ug/L	10.
1,3-Dichlorobenzene .....:	<10.	ug/L	10.
1,4-Dichlorobenzene .....:	<10.	ug/L	10.
3,3'-Dichlorobenzidine .....:	<20.	ug/L	20.
Diethyl Phthalate (H2O) .....:	<10.	ug/L	10.
O,O-Diethyl-O-2-Pyrazinyl .....:	<50.	ug/L	50.
Phosphorothioate .....:			
Dimethoate (H2O) .....:	<130.	ug/L	130.
a,a Dimethylphenethylamine (H2O) .:	<20.	ug/L	20.
Dimethyl phthalate (H2O) .....:	<10.	ug/L	10.
p-Dimethylaminozobenzene .....:	<20.	ug/L	20.
7,12-Dimethylbenz(a)anthracene ...:	<50.	ug/L	50.
(H2O) .....:			
3,3'-Dimethylbenzidine .....:	<50.	ug/L	50.
M-Dimitrobenzene .....:	<10.	ug/L	10.
2,4-Dinitrotoluene .....:	<10.	ug/L	10.
2,6-Dinitrotoluene .....:	<10.	ug/L	10.
Disulfoton .....:	<50.	ug/L	50.
Ethyl Methanesulfonate .....:	<130.	ug/L	130.
Famphur .....:	<130.	ug/L	130.
Fluoranthene .....:	<10.	ug/L	10.

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Las Cruces, NM 88001

SAMPLE NO. : 6201754
INVOICE NO.: 62120526
REPORT DATE: 07-16-92
REVIEWED BY:

D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Fluorene	<10.	ug/L	10.
Hexachlorobutadiene	<10.	ug/L	10.
Hexachlorobenzene	<10.	ug/L	10.
Hexachlorocyclopentadiene	<10.	ug/L	10.
Hexachlorodibenzo-p-Dioxins	<20.	ug/L	20.
Hexachlorodibenzofurans	<20.	ug/L	20.
Hexachloroethane	<10.	ug/L	10.
Hexachlorophene	<330.	ug/L	330.
Hexachloropropene	<50.	ug/L	50.
ıdeno(e,2,3-cd)pyrene	<10.	ug/L	10.
sophorone	<10.	ug/L	10.
Isosafrole	<50.	ug/L	50.
Kepone	<130.	ug/L	130.
Methapyrilene	<200.	ug/L	200.
Methylmethansulfonate	<50.	ug/L	50.
3-Methylcholanthrene	<10.	ug/L	10.
2-Methylnaphthalene	<50.	ug/L	50.
Napthalene	<10.	ug/L	10.
1,4-Naphthoquinone	<50.	ug/L	50.
1-Naphthylamine	<50.	ug/L	50.
2-Naphthylamine	<10.	ug/L	10.
2-Naphthylamine	<10.	ug/L	10.
5-Nitro-o-toluidine	<50.	ug/L	50.
2-Nitrophenol	<10.	ug/L	10.
3-Nitroaniline	<50.	ug/L	50.
4-Nitroaniline	<10.	ug/L	10.
Nitrobenzene	<10.	ug/L	10.
4-Nitroquinoline-1-oxide	<200.	ug/L	200.
N-Nitrosodibutylamine	<10.	ug/L	10.
N-Nitroso-di-n-propylamine	<10.	ug/L	10.
N-Nitrosodiethylamine	<10.	ug/L	10.
N-Nitroso Dimethyl Amine	<20.	ug/L	20.
N-Nitrosodiphenylamine	<10.	ug/L	10.
N-Nitrosomethylethylamine	<20.	ug/L	20.
-Nitrosomorpholine	<20.	ug/L	20.
Nitrosopiperidine	<130.	ug/L	130.
N-Nitrosopyrrolidine	<200.	ug/L	200.
di-n-Octyl Phthalate	<10.	ug/L	10.

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SAMPLE NO. : 6201754
INVOICE NO.: 62120526
REPORT DATE: 07-16-92
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PAGE : 4 OF 4

D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Pentachlorobenzene .....:	<20.	ug/L	20.
Pentachlorodibenzo-p-Dioxins .....:	<20.	ug/L	20.
Pentachlorodibenzofurans .....:	<20.	ug/L	20.
Pentachloroethane .....:	<10.	ug/L	10.
Pentachloronitrobenzene .....:	<130.	ug/L	130.
Phenacetin .....:	<1300.	ug/L	1300.
Phenanthrene .....:	<10.	ug/L	10.
Phorate .....:	<50.	ug/L	50.
2-Picoline .....:	<100.	ug/L	100.
Pronamide .....:	<50.	ug/L	50.
Pyrene .....:	<10.	ug/L	10.
Pyridine .....:	<100.	ug/L	100.
Safrole .....:	<50.	ug/L	50.
1,2,4,5-Tetrachlorobenzene .....:	<50.	ug/L	50.
2,3,7,8-Tetrachlorodibenzo-p-dioxin:	<20.	ug/L	20.
Tetrachlorodibenzo-p-dioxins .....:	<20.	ug/L	20.
Tetrachlordibenzofurans .....:	<20.	ug/L	20.
Tetraethlydithiopyrophosphate ....:	<50.	ug/L	50.
1,2,4-Trichlorobenzene .....:	<10.	ug/L	10.
Methyl parathion .....:	<50.	ug/L	50.
Parathion .....:	<50.	ug/l	50.
2,4,5-TP (Silvex) .....:	<10.	ug/L	10.
2,4,5-T .....:	<10.	ug/L	10.

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SAMPLE NO. : 6201755
INVOICE NO.: 62120526
REPORT DATE: 07-27-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : Tank Rinseate #1
SAMPLE TYPE .....: Water
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Inner Tank/WWSF

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 07-01-92
SUBMITTAL DATE : 07-02-92
EXTRACTION DATE: --

Inorganic Chemistry - Total Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Total Antimony .....:	0.10	mg/L	0.05	07-24-92
Total Arsenic .....:	<0.10	mg/L	0.10	07-13-92
Total Barium .....:	5.9	mg/L	0.20	07-09-92
Total Beryllium .....:	<0.05	mg/L	0.05	07-24-92
Total Cadmium .....:	<0.05	mg/L	0.05	07-09-92
Total Chromium .....:	<0.10	mg/L	0.10	07-09-92
Total Cobalt .....:	<0.05	mg/L	0.05	07-24-92
Total Copper .....:	0.06	mg/L	0.05	07-20-92
Total Lead .....:	<0.20	mg/L	0.20	07-09-92
Total Mercury .....:	<0.01	mg/L	0.01	07-24-92
Total Nickel .....:	<0.10	mg/L	0.10	07-20-92
Total Selenium .....:	<0.05	mg/L	0.05	07-24-92
Total Silver .....:	0.08	mg/L	0.05	07-09-92
Total Tin .....:	0.09	mg/L	0.05	07-24-92
Total Thallium .....:	0.11	mg/L	0.10	07-24-92
Total Vanadium .....:	<0.05	mg/L	0.05	07-24-92
Total Zinc .....:	0.15	mg/L	0.05	07-20-92

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SAMPLE NO. : 6201756
INVOICE NO.: 62120526
REPORT DATE: 07-17-92
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PAGE : 1 OF 1

CLIENT SAMPLE ID : Tank Rinseate #2
SAMPLE TYPE .....: Water
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Inner Tank/WWSF
ANALYST .....: S. SMITH

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 07-01-92
SUBMITTAL DATE : 07-02-92
EXTRACTION DATE: 07-06-92
ANALYSIS DATE .: 07-14-92

Method 8080 - Pesticides & PCB'S

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<0.10	ug/L	0.10
4,4'-DDE	<0.10	ug/L	0.10
4,4'-DDT	<0.10	ug/L	0.10
Aldrin	<0.10	ug/L	0.10
alpha-BHC	<0.10	ug/L	0.10
beta-BHC	<0.10	ug/L	0.10
delta-BHC	<0.10	ug/L	0.10
Chlordane	<1.5	ug/L	1.5
Dieldrin	<0.10	ug/L	0.10
Endosulfan I	<0.10	ug/L	0.10
Endosulfan II	<0.10	ug/L	0.10
Endosulfan sulfate	<0.10	ug/L	0.10
Endrin	<0.10	ug/L	0.10
Endrin aldehyde	<0.10	ug/L	0.10
Heptachor	<0.10	ug/L	0.10
Hetachlor Epoxide	<0.10	ug/L	0.10
Hexachlorobenzene	<0.5	ug/L	0.5
Lindane	<0.10	ug/L	0.10
Methoxychlor	<0.40	ug/L	0.40
Toxaphene	<2.5	ug/L	2.5
PCB 1016	<1.0	ug/L	1.0
PCB 1221	<50.	ug/L	50.
PCB 1232	<1.0	ug/L	1.0
PCB 1242	<1.0	ug/L	1.0
PCB 1248	<1.0	ug/L	1.0
PCB 1254	<1.0	ug/L	1.0
PCB 1260	<1.0	ug/L	1.0

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SAMPLE NO. : 6201757
INVOICE NO.: 62120526
REPORT DATE: 07-16-92
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PAGE : 1 OF 2

CLIENT SAMPLE ID : Tank Rinseate #3
SAMPLE TYPE .....: Water
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Inner Tank/WWSF
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 07-01-92
SUBMITTAL DATE : 07-02-92
EXTRACTION DATE: 07-09-92
ANALYSIS DATE .: 07-09-92

Method 8260 - Volatile Organics
Appendix IX Compounds

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
Acetone	<10.	ug/L	10.
crolein	<100.	ug/L	100.
crylonitrile	<100.	ug/L	100.
Benzene	<5.0	ug/L	5.0
Bromodichloromethane	<10.	ug/L	10.
Bromoform	<10.	ug/L	10.
Bromomethane	<10.	ug/L	10.
Carbon Disulfide	<1.0	ug/L	1.0
Carbon tetrachloride	<5.0	ug/L	5.0
Chlorobenzene	<5.0	ug/L	5.0
Dibromochloromethane	<10.	ug/L	10.
Chloroethane	<10.	ug/L	10.
Chloroform	<5.0	ug/L	5.0
Chloromethane	<10.	ug/L	10.
3-Chloropropene	<10.	ug/L	10.
Dibromochloropropane	<5.0	ug/L	5.0
1,2-Dibromoethane (EDB)	<10.	ug/L	10.
Dibromomethane	<25.	ug/L	25.
Trans-1,4-Dichloro-2-Butene	<10.	ug/L	10.
Dichlorodifluoromethane	<25.	ug/L	25.
1,1-Dichloroethane	<5.0	ug/L	5.0
1,2-Dichloroethane	<5.0	ug/L	5.0
1,1-Dichloroethene	<5.0	ug/L	5.0
trans 1,2-Dichloroethene	<5.0	ug/L	5.0
Dichloromethane	<5.0	ug/L	5.0
1,2-Dichloropropane	<5.0	ug/L	5.0
cis 1,3-Dichloropropylene	<5.0	ug/L	5.0
s 1,3-Dichloropropylene	<5.0	ug/L	5.0
,4-Dioxane	<20.	ug/L	20.
Ethylbenzene	<5.0	ug/L	5.0

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SAMPLE NO. : 6201757
INVOICE NO.: 62120526
REPORT DATE: 07-16-92
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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide	<100.	ug/L	100.
Ethylmethacrylate	<100.	ug/L	100.
2-Hexanone	<10.	ug/L	10.
Iodomethane (Methyliodide)	<10.	ug/L	10.
Isobutyl alcohol	<10.	ug/L	10.
Methacrylonitrile	<50.	ug/L	50.
Methyl ethyl ketone	<10.	ug/L	10.
Methyl Methacrylate	<50.	ug/L	50.
Methyl isobutyl ketone	<10.	ug/L	10.
Styrene	<5.0	ug/L	5.0
1,1,2,2-Tetrachloroethene	<5.0	ug/L	5.0
Toluene	<5.0	ug/L	5.0
1,1,1-Trichloroethane	<5.0	ug/L	5.0
1,1,2-Trichloroethane	<5.0	ug/L	5.0
Trichloroethene	<5.0	ug/L	5.0
Trichlorofluoromethane	<10.	ug/L	10.
1,2,3-Trichloropropane	<5.0	ug/L	5.0
Vinyl Acetate	<100.	ug/L	100.
Vinyl chloride	<10.	ug/L	10.
Xylenes	<1.0	ug/L	1.0

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SAMPLE NO. : 6201757
INVOICE NO.: 62120526
REPORT DATE: 07-16-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : Tank Rinseate #3
SAMPLE TYPE .....: Water
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Inner Tank/WWSF

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 07-01-92
SUBMITTAL DATE : 07-02-92
EXTRACTION DATE: --

Inorganic Non-Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Sulfide,Total .....:	1.1	mg/L	0.10	07-16-92

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SAMPLE NO. : 6201758
INVOICE NO.: 62120526
REPORT DATE: 07-23-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : Tank Rinseate #4
SAMPLE TYPE .....: Water
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Inner Tank/WWSF

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 07-01-92
SUBMITTAL DATE : 07-02-92
EXTRACTION DATE: --

Inorganic Non-Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Ammenable .....:	1.51	mg/L	1.0	07-20-92
Cyanide, Total(Distillation) .....:	1.60	mg/L	1.0	07-15-92

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SAMPLE NO. : 6201759
INVOICE NO.: 62120526
REPORT DATE: 07-16-92
REVIEWED BY:

CLIENT SAMPLE ID : Tank Rinseate #5
SAMPLE TYPE .....: Water
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Inner Tank/WWSF
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 07-01-92
SUBMITTAL DATE : 07-02-92
EXTRACTION DATE: 07-06-92
ANALYSIS DATE .: 07-08-92

Method 8270 - Semi Volatile Organics
Appendix IX Compounds

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
2-sec-Butyl-4,6-Dinitrophenol ....:	<20.	ug/L	20.
-Chloro-3-methylphenol .....:	<20.	ug/L	20.
-Chlorophenol .....:	<10.	ug/L	10.
2,4-Dichlorophenol .....:	<10.	ug/L	10.
2,6 Dichorophenol .....:	<10.	ug/L	10.
2,4-Dimethylphenol .....:	<10.	ug/L	10.
4,6-Dinitro-2-Methylphenol .....:	<20.	ug/L	20.
2,4-Dinitrophenol .....:	<10.	ug/L	10.
2-Methylphenol .....:	<10.	ug/L	10.
3-Methylphenol .....:	<10.	ug/L	10.
4-Methylphenol .....:	<10.	ug/L	10.
2-Nitrophenol .....:	<10.	ug/L	10.
4-Nitrophenol .....:	<50.	ug/L	50.
Pentachlorophenol .....:	<10.	ug/L	10.
Phenol .....:	<10.	ug/L	10.
2,3,4,6-Tetrachlorophenol .....:	<10.	ug/L	10.
2,4,5-Trichlorophenol .....:	<10.	ug/L	10.
2,4,6-Trichlorophnol .....:	<10.	ug/L	10.
Acenaphthene (H2O) .....:	<10.	ug/L	10.
Acetophenone .....:	<10.	ug/L	10.
Acenaphthylene .....:	<10.	ug/L	10.
2-Acetylaminofluorene .....:	<10.	ug/L	10.
4-Aminobiphenyl .....:	<20.	ug/L	20.
Aniline .....:	<50.	ug/L	50.
Anthracene (H2O) .....:	<10.	ug/L	10.
Aramite (H2O) .....:	<50.	ug/L	50.
Benzo(a)anthracene (H2O) .....:	<10.	ug/L	10.
enzo(a)pyrene (H2O) .....:	<10.	ug/L	10.
Benzo(b)fluoranthene (H2O) .....:	<30.	ug/L	30.
Benzo(k)fluoranthene (H2O) .....:	<10.	ug/L	10.

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Las Cruces, NM 88001

SAMPLE NO. : 6201759
INVOICE NO.: 62120526
REPORT DATE: 07-16-92
REVIEWED BY:

D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Benzyl alcohol (H2O) .....:	<130.	ug/L	130.
Bis(2-Chloroethoxy)methane (H2O) .:	<10.	ug/L	10.
Bis(2-Chloroethyl)ether (H2O) ....:	<10.	ug/L	10.
Bis(2-chloroisopropyl)ether .....:	<10.	ug/L	10.
Bis(2-ethylhexyl) phthalate (H2O) :	73.	ug/L	10.
4-Bromophenyl phenyl ether .....:	<10.	ug/L	10.
Butyl benzyl phthalate (H2O) .....:	<10.	ug/L	10.
Di-n-butyl phthalate (H2O) .....:	<10.	ug/L	10.
2-Chloro-1,3-Butadiene .....:	<20.	ug/L	20.
4-Chloroaniline .....:	<20.	ug/L	20.
Chlorobenzilate .....:	<100.	ug/L	100.
2-Chloronaphthalene .....:	<10.	ug/L	10.
4-Chlorophenyl phenyl ether .....:	<10.	ug/L	10.
Chrysene (H2O) .....:	<10.	ug/L	10.
Diallate (cis of trans) .....:	<50.	ug/L	50.
Dibenzo(a,h)anthracene (H2O) .....:	<10.	ug/L	10.
Dibenzofuran .....:	<50.	ug/L	50.
1,2-Dichlorobenzene .....:	<10.	ug/L	10.
1,3-Dichlorobenzene .....:	<10.	ug/L	10.
1,4-Dichlorobenzene .....:	<10.	ug/L	10.
3,3'-Dichlorobenzidine .....:	<20.	ug/L	20.
Diethyl Phthalate (H2O) .....:	<10.	ug/L	10.
O,O-Diethyl-O-2-Pyrazinyl .....:	<50.	ug/L	50.
Phosphorothioate .....:			
Dimethoate (H2O) .....:	<130.	ug/L	130.
a,a Dimethylphenethylamine (H2O) .:	<20.	ug/L	20.
Dimethyl phthalate (H2O) .....:	<10.	ug/L	10.
p-Dimethylaminozobenzene .....:	<20.	ug/L	20.
7,12-Dimethylbenz(a)anthracene ...:	<50.	ug/L	50.
(H2O) .....:			
3,3'-Dimethylbenzidine .....:	<50.	ug/L	50.
M-Dimitrobenzene .....:	<10.	ug/L	10.
2,4-Dinitrotoluene .....:	<10.	ug/L	10.
2,6-Dinitrotoluene .....:	<10.	ug/L	10.
Disulfoton .....:	<50.	ug/L	50.
Ethyl Methanesulfonate .....:	<130.	ug/L	130.
Famphur .....:	<130.	ug/L	130.
Fluoranthene .....:	<10.	ug/L	10.

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CLIENT Advanced Sciences Inc.
Attn: David Bollschweiler
555 S. Telshor Ste. 310
Las Cruces, NM 88001

SAMPLE NO. : 6201759
INVOICE NO.: 62120526
REPORT DATE: 07-16-92
REVIEWED BY:

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Fluorene	<10.	ug/L	10.
Hexachlorobutadiene	<10.	ug/L	10.
Hexachlorobenzene	<10.	ug/L	10.
Hexachlorocyclopentadiene	<10.	ug/L	10.
Hexachlorodibenzo-p-Dioxins	<20.	ug/L	20.
Hexachlorodibenzofurans	<20.	ug/L	20.
Hexachloroethane	<10.	ug/L	10.
Hexachlorophene	<330.	ug/L	330.
Hexachloropropene	<50.	ug/L	50.
deno(e,2,3-cd)pyrene	<10.	ug/L	10.
ophorone	<10.	ug/L	10.
Isosafrole	<50.	ug/L	50.
Kepone	<130.	ug/L	130.
Methapyrilene	<200.	ug/L	200.
Methylmethansulfonate	<50.	ug/L	50.
3-Methylcholanthrene	<10.	ug/L	10.
2-Methylnaphthalene	<50.	ug/L	50.
Napthalene	<10.	ug/L	10.
1,4-Naphthoquinone	<50.	ug/L	50.
1-Naphthylamine	<50.	ug/L	50.
2-Naphthylamine	<10.	ug/L	10.
2-Naphthylamine	<10.	ug/L	10.
5-Nitro-o-toluidine	<50.	ug/L	50.
2-Nitrophenol	<10.	ug/L	10.
3-Nitroaniline	<50.	ug/L	50.
4-Nitroaniline	<10.	ug/L	10.
Nitrobenzene	<10.	ug/L	10.
4-Nitroquinoline-1-oxide	<200.	ug/L	200.
N-Nitrosodibutylamine	<10.	ug/L	10.
N-Nitroso-di-n-propylamine	<10.	ug/L	10.
N-Nitrosodiethylamine	<10.	ug/L	10.
N-Nitroso Dimethyl Amine	<20.	ug/L	20.
N-Nitrosodiphenylamine	<10.	ug/L	10.
N-Nitrosomethylethylamine	<20.	ug/L	20.
N-Nitrosomorpholine	<20.	ug/L	20.
Nitrosopiperidine	<130.	ug/L	130.
N-Nitrosopyrrolidine	<200.	ug/L	200.
di-n-Octyl Phthalate	<10.	ug/L	10.

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SAMPLE NO. : 6201759
INVOICE NO.: 62120526
REPORT DATE: 07-16-92
REVIEWED BY:

D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Pentachlorobenzene .....:	<20.	ug/L	20.
Pentachlorodibenzo-p-Dioxins .....:	<20.	ug/L	20.
Pentachlorodibenzofurans .....:	<20.	ug/L	20.
Pentachloroethane .....:	<10.	ug/L	10.
Pentachloronitrobenzene .....:	<130.	ug/L	130.
Phenacetin .....:	<1300.	ug/L	1300.
Phenanthrene .....:	<10.	ug/L	10.
Phorate .....:	<50.	ug/L	50.
2-Picoline .....:	<100.	ug/L	100.
Pronamide .....:	<50.	ug/L	50.
Pyrene .....:	<10.	ug/L	10.
Pyridine .....:	<100.	ug/L	100.
Safrole .....:	<50.	ug/L	50.
1,2,4,5-Tetrachlorobenzene .....:	<50.	ug/L	50.
2,3,7,8-Tetrachlorodibenzo-p-dioxin:	<20.	ug/L	20.
Tetrachlorodibenzo-p-dioxins .....:	<20.	ug/L	20.
Tetrachlordibenzofurans .....:	<20.	ug/L	20.
Tetraethlydithiopyrophosphate ....:	<50.	ug/L	50.
1,2,4-Trichlorobenzene .....:	<10.	ug/L	10.
Methyl parathion .....:	<50.	ug/L	50.
Parathion .....:	<50.	ug/l	50.
2,4,5-TP (Silvex) .....:	<10.	ug/L	10.
2,4,5-T .....:	<10.	ug/L	10.

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Las Cruces, NM 88001

SAMPLE NO. : 6201760
INVOICE NO.: 62120526
REPORT DATE: 07-16-92
REVIEWED BY:
PAGE : 1 OF 2

CLIENT SAMPLE ID : Potable H20 #11
SAMPLE TYPE .....: Water
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Spigot
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 07-01-92
SUBMITTAL DATE : 07-02-92
EXTRACTION DATE: 07-09-92
ANALYSIS DATE .: 07-09-92

Method 8260 - Volatile Organics
Appendix IX Compounds

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
Acetone	<10.	ug/L	10.
rolein	<100.	ug/L	100.
rylonitrile	<100.	ug/L	100.
Benzene	<5.0	ug/L	5.0
Bromodichloromethane	<10.	ug/L	10.
Bromoform	<10.	ug/L	10.
Bromomethane	<10.	ug/L	10.
Carbon Disulfide	<1.0	ug/L	1.0
Carbon tetrachloride	<5.0	ug/L	5.0
Chlorobenzene	<5.0	ug/L	5.0
Dibromochloromethane	<10.	ug/L	10.
Chloroethane	<10.	ug/L	10.
Chloroform	<5.0	ug/L	5.0
Chloromethane	<10.	ug/L	10.
3-Chloropropene	<10.	ug/L	10.
Dibromochloropropane	<5.0	ug/L	5.0
1,2-Dibromoethane (EDB)	<10.	ug/L	10.
Dibromomethane	<25.	ug/L	25.
Trans-1,4-Dichloro-2-Butene	<10.	ug/L	10.
Dichlorodifluoromethane	<25.	ug/L	25.
1,1-Dichloroethane	<5.0	ug/L	5.0
1,2-Dichloroethane	<5.0	ug/L	5.0
1,1-Dichloroethene	<5.0	ug/L	5.0
trans 1,2-Dichloroethene	<5.0	ug/L	5.0
Dichloromethane	<5.0	ug/L	5.0
1,2-Dichloropropane	<5.0	ug/L	5.0
cis 1,3-Dichloropropylene	<5.0	ug/L	5.0
s 1,3-Dichloropropylene	<5.0	ug/L	5.0
,4-Dioxane	<20.	ug/L	20.
Ethylbenzene	<5.0	ug/L	5.0

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Las Cruces, NM 88001

SAMPLE NO. : 6201760
INVOICE NO.: 62120526
REPORT DATE: 07-16-92
REVIEWED BY:

D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide ....:	<100.	ug/L	100.
Ethylmethacrylate ....:	<100.	ug/L	100.
2-Hexanone ....:	<10.	ug/L	10.
Iodomethane (Methyliodide) ....:	<10.	ug/L	10.
Isobutyl alcohol ....:	<10.	ug/L	10.
Methacrylonitrile ....:	<50.	ug/L	50.
Methyl ethyl ketone ....:	<10.	ug/L	10.
Methyl Methacrylate ....:	<50.	ug/L	50.
Methyl isobutyl ketone ....:	<10.	ug/L	10.
Styrene ....:	<5.0	ug/L	5.0
1,1,2,2-Tetrachloroethene ....:	<5.0	ug/L	5.0
Toluene ....:	<5.0	ug/L	5.0
1,1,1-Trichloroethane ....:	<5.0	ug/L	5.0
1,1,2-Trichloroethane ....:	<5.0	ug/L	5.0
Trichloroethene ....:	<5.0	ug/L	5.0
Trichlorofluoromethane ....:	<10.	ug/L	10.
1,2,3-Trichloropropane ....:	<5.0	ug/L	5.0
Vinyl Acetate ....:	<100.	ug/L	100.
Vinyl chloride ....:	<10.	ug/L	10.
Xylenes ....:	<1.0	ug/L	1.0

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Las Cruces, NM 88001

SAMPLE NO. : 6201760
INVOICE NO.: 62120526
REPORT DATE: 07-16-92
REVIEWED BY:

CLIENT SAMPLE ID : Potable H20 #11
SAMPLE TYPE .....: Water
SAMPLED BY .....: D.Bollschweiler
SUBMITTED BY ....: D.Bollschweiler
SAMPLE SOURCE ...: Spigot
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 07-01-92
SUBMITTAL DATE : 07-02-92
EXTRACTION DATE: 07-06-92
ANALYSIS DATE .: 07-08-92

Method 8270 - Semi Volatile Organics
Appendix IX Compounds

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
2-sec-Butyl-4,6-Dinitrophenol ....:	<20.	ug/L	20.
hloro-3-methylphenol .....:	<20.	ug/L	20.
hlorophenol .....:	<10.	ug/L	10.
2,4-Dichlorophenol .....:	<10.	ug/L	10.
2,6 Dichorophenol .....:	<10.	ug/L	10.
2,4-Dimethylphenol .....:	<10.	ug/L	10.
4,6-Dinitro-2-Methylphenol .....:	<20.	ug/L	20.
2,4-Dinitrophenol .....:	<10.	ug/L	10.
2-Methylphenol .....:	<10.	ug/L	10.
3-Methylphenol .....:	<10.	ug/L	10.
4-Methylphenol .....:	<10.	ug/L	10.
2-Nitrophenol .....:	<10.	ug/L	10.
4-Nitrophenol .....:	<50.	ug/L	50.
Pentachlorophenol .....:	<10.	ug/L	10.
Phenol .....:	<10.	ug/L	10.
2,3,4,6-Tetrachlorophenol .....:	<10.	ug/L	10.
2,4,5-Trichlorophenol .....:	<10.	ug/L	10.
2,4,6-Trichlorophnol .....:	<10.	ug/L	10.
Acenaphthene (H2O) .....:	<10.	ug/L	10.
Acetophenone .....:	<10.	ug/L	10.
Acenaphthylene .....:	<10.	ug/L	10.
2-Acetylaminofluorene .....:	<10.	ug/L	10.
4-Aminobiphenyl .....:	<20.	ug/L	20.
Aniline .....:	<50.	ug/L	50.
Anthracene (H2O) .....:	<10.	ug/L	10.
Aramite (H2O) .....:	<50.	ug/L	50.
Benzo(a)anthracene (H2O) .....:	<10.	ug/L	10.
zo(a)pyrene (H2O) .....:	<10.	ug/L	10.
Benzo(b)fluoranthene (H2O) .....:	<30.	ug/L	30.
Benzo(k)fluoranthene (H2O) .....:	<10.	ug/L	10.

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Las Cruces, NM 88001

SAMPLE NO. : 6201760
INVOICE NO.: 62120526
REPORT DATE: 07-16-92
REVIEWED BY:

D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Benzyl alcohol (H2O) .....:	<130.	ug/L	130.
Bis(2-Chloroethoxy)methane (H2O) .:	<10.	ug/L	10.
Bis(2-Chloroethyl)ether (H2O) ....:	<10.	ug/L	10.
Bis(2-chloroisopropyl)ether .....:	<10.	ug/L	10.
Bis(2-ethylhexyl) phthalate (H2O) :	<10.	ug/L	10.
4-Bromophenyl phenyl ether .....:	<10.	ug/L	10.
Butyl benzyl phthalate (H2O) .....:	<10.	ug/L	10.
Di-n-butyl phthalate (H2O) .....:	<10.	ug/L	10.
2-Chloro-1,3-Butadiene .....:	<20.	ug/L	20.
4-Chloroaniline .....:	<20.	ug/L	20.
Chlorobenzilate .....:	<100.	ug/L	100.
2-Chloronaphthalene .....:	<10.	ug/L	10.
4-Chlorophenyl phenyl ether .....:	<10.	ug/L	10.
Chrysene (H2O) .....:	<10.	ug/L	10.
Diallate (cis of trans) .....:	<50.	ug/L	50.
Dibenzo(a,h)anthracene (H2O) .....:	<10.	ug/L	10.
Dibenzofuran .....:	<50.	ug/L	50.
1,2-Dichlorobenzene .....:	<10.	ug/L	10.
1,3-Dichlorobenzene .....:	<10.	ug/L	10.
1,4-Dichlorobenzene .....:	<10.	ug/L	10.
3,3'-Dichlorobenzidine .....:	<20.	ug/L	20.
Diethyl Phthalate (H2O) .....:	<10.	ug/L	10.
O,O-Diethyl-O-2-Pyrazinyl .....:	<50.	ug/L	50.
Phosphorothioate .....:			
Dimethoate (H2O) .....:	<130.	ug/L	130.
a,a Dimethylphenethylamine (H2O) .:	<20.	ug/L	20.
Dimethyl phthalate (H2O) .....:	<10.	ug/L	10.
p-Dimethylaminozobenzene .....:	<20.	ug/L	20.
7,12-Dimethylbenz(a)anthracene ...:	<50.	ug/L	50.
(H2O) .....:			
3,3'-Dimethylbenzidine .....:	<50.	ug/L	50.
M-Dimitrobenzene .....:	<10.	ug/L	10.
2,4-Dinitrotoluene .....:	<10.	ug/L	10.
2,6-Dinitrotoluene .....:	<10.	ug/L	10.
Disulfoton .....:	<50.	ug/L	50.
Ethyl Methanesulfonate .....:	<130.	ug/L	130.
Famphur .....:	<130.	ug/L	130.
Fluoranthene .....:	<10.	ug/L	10.

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SAMPLE NO. : 6201760
INVOICE NO.: 62120526
REPORT DATE: 07-16-92
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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Fluorene	<10.	ug/L	10.
Hexachlorobutadiene	<10.	ug/L	10.
Hexachlorobenzene	<10.	ug/L	10.
Hexachlorocyclopentadiene	<10.	ug/L	10.
Hexachlorodibenzo-p-Dioxins	<20.	ug/L	20.
Hexachlorodibenzofurans	<20.	ug/L	20.
Hexachloroethane	<10.	ug/L	10.
Hexachlorophene	<330.	ug/L	330.
Hexachloropropene	<50.	ug/L	50.
deno(e,2,3-cd)pyrene	<10.	ug/L	10.
ophorone	<10.	ug/L	10.
Isosafrole	<50.	ug/L	50.
Kepone	<130.	ug/L	130.
Methapyrilene	<200.	ug/L	200.
Methylmethansulfonate	<50.	ug/L	50.
3-Methylcholanthrene	<10.	ug/L	10.
2-Methylnaphthalene	<50.	ug/L	50.
Napthalene	<10.	ug/L	10.
1,4-Naphthoquinone	<50.	ug/L	50.
1-Naphthylamine	<50.	ug/L	50.
2-Naphthylamine	<10.	ug/L	10.
2-Naphthylamine	<10.	ug/L	10.
5-Nitro-o-toluidine	<50.	ug/L	50.
2-Nitrophenol	<10.	ug/L	10.
3-Nitroaniline	<50.	ug/L	50.
4-Nitroaniline	<10.	ug/L	10.
Nitrobenzene	<10.	ug/L	10.
4-Nitroquinoline-1-oxide	<200.	ug/L	200.
N-Nitrosodibutylamine	<10.	ug/L	10.
N-Nitroso-di-n-propylamine	<10.	ug/L	10.
N-Nitrosodiethylamine	<10.	ug/L	10.
N-Nitroso Dimethyl Amine	<20.	ug/L	20.
N-Nitrosodiphenylamine	<10.	ug/L	10.
N-Nitrosomethylethylamine	<20.	ug/L	20.
N-Nitrosomorpholine	<20.	ug/L	20.
itrosopiperidine	<130.	ug/L	130.
-Nitrosopyrrolidine	<200.	ug/L	200.
di-n-Octyl Phthalate	<10.	ug/L	10.

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SAMPLE NO. : 6201760
INVOICE NO.: 62120526
REPORT DATE: 07-16-92
REVIEWED BY:
PAGE : 4 OF 4

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Pentachlorobenzene .....:	<20.	ug/L	20.
Pentachlorodibenzo-p-Dioxins .....:	<20.	ug/L	20.
Pentachlorodibenzofurans .....:	<20.	ug/L	20.
Pentachloroethane .....:	<10.	ug/L	10.
Pentachloronitrobenzene .....:	<130.	ug/L	130.
Phenacetin .....:	<1300.	ug/L	1300.
Phenanthrene .....:	<10.	ug/L	10.
Phorate .....:	<50.	ug/L	50.
2-Picoline .....:	<100.	ug/L	100.
Pronamide .....:	<50.	ug/L	50.
Pyrene .....:	<10.	ug/L	10.
Pyridine .....:	<100.	ug/L	100.
Safrole .....:	<50.	ug/L	50.
1,2,4,5-Tetrachlorobenzene .....:	<50.	ug/L	50.
2,3,7,8-Tetrachlorodibenzo-p-dioxin:	<20.	ug/L	20.
Tetrachlorodibenzo-p-dioxins .....:	<20.	ug/L	20.
Tetrachlordibenzofurans .....:	<20.	ug/L	20.
Tetraethlydithiopyrophosphate ....:	<50.	ug/L	50.
1,2,4-Trichlorobenzene .....:	<10.	ug/L	10.
Methyl parathion .....:	<50.	ug/L	50.
Parathion .....:	<50.	ug/l	50.
2,4,5-TP (Silvex) .....:	<10.	ug/L	10.
2,4,5-T .....:	<10.	ug/L	10.

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555 S. Telshor Ste. 310
Las Cruces, NM 88001

SAMPLE NO. : 6201924
INVOICE NO.: 62120526
REPORT DATE: 07-27-92
REVIEWED BY:

CLIENT SAMPLE ID : 8270 Blank Extraction
SAMPLE TYPE .....: --
SAMPLED BY .....: --
SUBMITTED BY ....: --
SAMPLE SOURCE ...: --
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: --
SUBMITTAL DATE : 07-07-92
EXTRACTION DATE: 07-06-92
ANALYSIS DATE .: 07-08-92

Method 8270 - Semi Volatile Organics
Appendix IX Compounds

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
2-sec-Butyl-4,6-Dinitrophenol ....:	<20.	ug/L	20.
-Chloro-3-methylphenol .....:	<20.	ug/L	20.
-Chlorophenol .....:	<10.	ug/L	10.
2,4-Dichlorophenol .....:	<10.	ug/L	10.
2,6 Dichorophenol .....:	<10.	ug/L	10.
2,4-Dimethylphenol .....:	<10.	ug/L	10.
4,6-Dinitro-2-Methylphenol .....:	<20.	ug/L	20.
2,4-Dinitrophenol .....:	<10.	ug/L	10.
2-Methylphenol .....:	<10.	ug/L	10.
3-Methylphenol .....:	<10.	ug/L	10.
4-Methylphenol .....:	<10.	ug/L	10.
2-Nitrophenol .....:	<10.	ug/L	10.
4-Nitrophenol .....:	<50.	ug/L	50.
Pentachlorophenol .....:	<10.	ug/L	10.
Phenol .....:	<10.	ug/L	10.
2,3,4,6-Tetrachlorophenol .....:	<10.	ug/L	10.
2,4,5-Trichlorophenol .....:	<10.	ug/L	10.
2,4,6-Trichlorophnol .....:	<10.	ug/L	10.
Acenaphthene (H2O) .....:	<10.	ug/L	10.
Acetophenone .....:	<10.	ug/L	10.
Acenaphthylene .....:	<10.	ug/L	10.
2-Acetylaminofluorene .....:	<10.	ug/L	10.
4-Aminobiphenyl .....:	<20.	ug/L	20.
Aniline .....:	<50.	ug/L	50.
Anthracene (H2O) .....:	<10.	ug/L	10.
Aramite (H2O) .....:	<50.	ug/L	50.
Benzo(a)anthracene (H2O) .....:	<10.	ug/L	10.
nzo(a)pyrene (H2O) .....:	<10.	ug/L	10.
enzo(b)fluoranthene (H2O) .....:	<30.	ug/L	30.
Benzo(k)fluoranthene (H2O) .....:	<10.	ug/L	10.

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CLIENT Advanced Sciences Inc.
Attn: David Bollschweiler
555 S. Telshor Ste. 310
Las Cruces, NM 88001

SAMPLE NO. : 6201924
INVOICE NO.: 62120526
REPORT DATE: 07-27-92
REVIEWED BY:

D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Benzyl alcohol (H2O) .....:	<130.	ug/L	130.
Bis(2-Chloroethoxy)methane (H2O) .:	<10.	ug/L	10.
Bis(2-Chloroethyl)ether (H2O) ....:	<10.	ug/L	10.
Bis(2-chloroisopropyl)ether .....:	<10.	ug/L	10.
Bis(2-ethylhexyl) phthalate (H2O) :	50.	ug/L	10.
4-Bromophenyl phenyl ether .....:	<10.	ug/L	10.
Butyl benzyl phthalate (H2O) .....:	<10.	ug/L	10.
Di-n-butyl phthalate (H2O) .....:	<10.	ug/L	10.
2-Chloro-1,3-Butadiene .....:	<20.	ug/L	20.
4-Chloroaniline .....:	<20.	ug/L	20.
Chlorobenzilate .....:	<100.	ug/L	100.
2-Chloronaphthalene .....:	<10.	ug/L	10.
4-Chlorophenyl phenyl ether .....:	<10.	ug/L	10.
Chrysene (H2O) .....:	<10.	ug/L	10.
Diallate (cis of trans) .....:	<50.	ug/L	50.
Dibenzo(a,h)anthracene (H2O) .....:	<10.	ug/L	10.
Dibenzofuran .....:	<50.	ug/L	50.
1,2-Dichlorobenzene .....:	<10.	ug/L	10.
1,3-Dichlorobenzene .....:	<10.	ug/L	10.
1,4-Dichlorobenzene .....:	<10.	ug/L	10.
3,3'-Dichlorobenzidine .....:	<20.	ug/L	20.
Diethyl Phthalate (H2O) .....:	<10.	ug/L	10.
O,O-Diethyl-O-2-Pyrazinyl .....:	<50.	ug/L	50.
Phosphorothioate .....:			
Dimethoate (H2O) .....:	<130.	ug/L	130.
a,a Dimethylphenethylamine (H2O) .:	<20.	ug/L	20.
Dimethyl phthalate (H2O) .....:	<10.	ug/L	10.
p-Dimethylaminozobenzene .....:	<20.	ug/L	20.
7,12-Dimethylbenz(a)anthracene ...:	<50.	ug/L	50.
(H2O) .....:			
3,3'-Dimethylbenzidine .....:	<50.	ug/L	50.
M-Dimitrobenzene .....:	<10.	ug/L	10.
2,4-Dinitrotoluene .....:	<10.	ug/L	10.
2,6-Dinitrotoluene .....:	<10.	ug/L	10.
Disulfoton .....:	<50.	ug/L	50.
Ethyl Methanesulfonate .....:	<130.	ug/L	130.
Famphur .....:	<130.	ug/L	130.
Fluoranthene .....:	<10.	ug/L	10.

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SAMPLE NO. : 6201924
INVOICE NO.: 62120526
REPORT DATE: 07-27-92
REVIEWED BY:

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Fluorene	<10.	ug/L	10.
Hexachlorobutadiene	<10.	ug/L	10.
Hexachlorobenzene	<10.	ug/L	10.
Hexachlorocyclopentadiene	<10.	ug/L	10.
Hexachlorodibenzo-p-Dioxins	<20.	ug/L	20.
Hexachlorodibenzofurans	<20.	ug/L	20.
Hexachloroethane	<10.	ug/L	10.
Hexachlorophene	<330.	ug/L	330.
Hexachloropropene	<50.	ug/L	50.
ndeno(e,2,3-cd)pyrene	<10.	ug/L	10.
sophorone	<10.	ug/L	10.
Isosafrole	<50.	ug/L	50.
Kepone	<130.	ug/L	130.
Methapyrilene	<200.	ug/L	200.
Methylmethansulfonate	<50.	ug/L	50.
3-Methylcholanthrene	<10.	ug/L	10.
2-Methylnaphthalene	<50.	ug/L	50.
Napthalene	<10.	ug/L	10.
1,4-Naphthoquinone	<50.	ug/L	50.
1-Naphthylamine	<50.	ug/L	50.
2-Naphthylamine	<10.	ug/L	10.
2-Naphthylamine	<10.	ug/L	10.
5-Nitro-o-toluidine	<50.	ug/L	50.
2-Nitrophenol	<10.	ug/L	10.
3-Nitroaniline	<50.	ug/L	50.
4-Nitroaniline	<10.	ug/L	10.
Nitrobenzene	<10.	ug/L	10.
4-Nitroquinoline-1-oxide	<200.	ug/L	200.
N-Nitrosodibutylamine	<10.	ug/L	10.
N-Nitroso-di-n-propylamine	<10.	ug/L	10.
N-Nitrosodiethylamine	<10.	ug/L	10.
N-Nitroso Dimethyl Amine	<20.	ug/L	20.
N-Nitrosodiphenylamine	<10.	ug/L	10.
N-Nitrosomethylethylamine	<20.	ug/L	20.
N-Nitrosomorpholine	<20.	ug/L	20.
-Nitrosopiperidine	<130.	ug/L	130.
N-Nitrosopyrrolidine	<200.	ug/L	200.
di-n-Octyl Phthalate	<10.	ug/L	10.

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SAMPLE NO. : 6201924
INVOICE NO.: 62120526
REPORT DATE: 07-27-92
REVIEWED BY:

D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Pentachlorobenzene .....:	<20.	ug/L	20.
Pentachlorodibenzo-p-Dioxins .....:	<20.	ug/L	20.
Pentachlorodibenzofurans .....:	<20.	ug/L	20.
Pentachloroethane .....:	<10.	ug/L	10.
Pentachloronitrobenzene .....:	<130.	ug/L	130.
Phenacetin .....:	<1300.	ug/L	1300.
Phenanthrene .....:	<10.	ug/L	10.
Phorate .....:	<50.	ug/L	50.
2-Picoline .....:	<100.	ug/L	100.
Pronamide .....:	<50.	ug/L	50.
Pyrene .....:	<10.	ug/L	10.
Pyridine .....:	<100.	ug/L	100.
Safrole .....:	<50.	ug/L	50.
1,2,4,5-Tetrachlorobenzene .....:	<50.	ug/L	50.
2,3,7,8-Tetrachlorodibenzo-p-dioxin:	<20.	ug/L	20.
Tetrachlorodibenzo-p-dioxins .....:	<20.	ug/L	20.
Tetrachlordibenzofurans .....:	<20.	ug/L	20.
Tetraethlydithiopyrophosphate ....:	<50.	ug/L	50.
1,2,4-Trichlorobenzene .....:	<10.	ug/L	10.
Methyl parathion .....:	<50.	ug/L	50.
Parathion .....:	<50.	ug/L	50.
2,4,5-TP (Silvex) .....:	<10.	ug/L	10.
2,4,5-T .....:	<10.	ug/L	10.

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El Paso • 10737 Gateway West #100 • TX 79935 • (915) 592-3591 • fax 592-3594

CHAIN OF CUSTODY RECORD

CLIENT: ADVANCED SERVICES, Inc.	ADDRESS: 555 SOUTH TELSHOR DRIVE SUITE 310, LAS CRUCES, NM 88001
TELEPHONE: 505-522-7229	PROJECT: WSMR EVAP TANK CLOSURE
	JOB/PO NO:

• REFER TO FEE SCHEDULE FOR ANALYSES SELECTION •

SAMPLER (SIGNATURE): John R. Dupuy, David Bollschweiler, George E. Esquede

SAMPLER (PLEASE PRINT): DAVID BOLLSCHWEILER, JOHN R. DUPUY, George E. Esquede

JRD 6-22-92

CLIENT SAMPLE IDENTIFICATION NUMBER	DATE	TIME	SAMPLE LOCATION	HOLD	COMPOSITE	GRAB	SAMPLE TYPE	NUMBER OF CONTAINERS	ALL; see contract	CYANIDES	HERBICIDES	METALS	PESTICIDES + PCBS	METHYLENE CHLORIDE	COMMENTS	LABORATORY SAMPLE IDENTIFICATION NUMBER
~~ET 1~~	~~6/22/92~~	~~11:00~~	~~WSMR EVAP TANK~~	JRD 6-22-92		W										
ET 1	6/22/92	11:00	WSMR EVAP TANK		S		S	1	✓						composite of residual materials in tank	6201694
ET 2	6/22/92	11:15	WSMR EVAP TANK			W	W	4	✓	✓	✓	✓	✓	per David Bollschweiler	grab sample of water in tank	6201695
ET 3	6/22/92	12:00	WSMR EVAP TANK bkgd			S	S	1	✓						subsurface soil for background	6201696
ET 4	6/22/92	15:00	WSMR EVAP Tank, blank				W	1					✓		trip blank	6201697

SAMPLE TYPE CODES: S – SOIL, W – WATER, O – OIL, G – SLUDGE, T – TRAVEL BLANK, F – FIELD BLANK, X – OTHER

RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME
Linda M. Thurman	Bruce Thompson	6/23/92	1030

REMARKS: Samples received ~4°C
All: CONTRACT: 8270, 8260, 8080, 6010 - metals: Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Hg, Ni, Se, Ag, Tl, Sn, V, Zn
A-CYANIDE, T-CYANIDE.

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CHAIN OF CUSTODY RECORD

CLIENT	ADDRESS	
ADVANCED SCIENCES INC	555 SOUTH TELSHAW DRIVE SUITE [illegible]	
	LAS CRUCES, NM 88011	
TELEPHONE: 505-522-7229	PROJECT: WSMR EVAP TANK CLOSURE	JOB/PO NO

• REFER TO FEE SCHEDULE FOR ANALYSES SELECTION •

SAMPLER (SIGNATURE): [illegible]

SAMPLER (PLEASE PRINT): DAVID POLLSCHNEIDER, JOHN R. DUPLEY, George E. Esquivel

SAMPLE TYPE CODES: S – SOIL, W – WATER, O – OIL, G – SLUDGE, T – TRAVEL BLANK, F – FIELD BLANK, X – OTHER

CLIENT SAMPLE IDENTIFICATION NUMBER	DATE	TIME	SAMPLE LOCATION	HOLD	COMPOSITE	GRAB	SAMPLE TYPE	NUMBER OF CONTAINERS	ALL – see contract	CYANIDES	HERBICIDES	METALS	PESTICIDES + PCBs	METHYLENE CHLORIDE	COMMENTS	LABORATORY SAMPLE IDENTIFICATION NUMBER
		JRD 6-22-92														
~~ET 1~~	~~6/22/92~~	~~11:00~~	~~WSMR EVAP TANK~~	~~JRD~~		~~W~~										
ET 1	6/22/92	11:00	WSMR EVAP TANK		S		S	1	✓						composite of residual materials in tank	
ET 2	6/22/92	11:15	WSMR EVAP TANK			W	W	4	✓	~~✓~~	~~✓~~	~~✓~~			grab sample of water in tank	
ET 3	6/22/92	12:00	WSMR EVAP TANK bkgd			S	S	1	✓		DOUB				subsurface soil for background	
ET 4	6/22/92	15:00	WSMR EVAP TANK Blank				W	1	✓				✓		Trip Blank	

RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	REMARKS
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	
RELINQUISHED BY (SIGNATURE)	RECEIVED BY (SIGNATURE)	DATE	TIME	

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CLIENT Advanced Sciences Inc.
Attn: David Bollschweiler
2755 North Main
Las Cruces, NM 88001

SAMPLE NO. : 6201694
INVOICE NO.: 62120502
REPORT DATE: 07-13-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ET1
SAMPLE TYPE .....: Soil
SAMPLED BY .....: D. Bollschweiler
SUBMITTED BY ....: L. Thurman
SAMPLE SOURCE ...: WSMR Evap Tank

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 06-22-92
SUBMITTAL DATE : 06-23-92
EXTRACTION DATE: --

Inorganic Non-Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Ammenable .....:	<1.0	mg/Kg	1.0	07-06-92
Cyanide, Total(Distillation) .....:	24.	mg/Kg	1.0	06-30-92

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Attn: David Bollschweiler
2755 North Main
Las Cruces, NM 88001

SAMPLE NO. : 6201694
INVOICE NO.: 62120502
REPORT DATE: 07-13-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ET1
SAMPLE TYPE .....: Soil
SAMPLED BY .....: D. Bollschweiler
SUBMITTED BY ....: L. Thurman
SAMPLE SOURCE ...: WSMR Evap Tank

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 06-22-92
SUBMITTAL DATE : 06-23-92
EXTRACTION DATE: --

Inorganic Chemistry-Total Metals

D A T A T A B L E

Parameter	Result	Unit	Detection Limit	Analysis Date
Total Antimony .....:	<2.5	mg/Kg	2.5	06-26-92
Total Arsenic .....:	1.5	mg/Kg	0.50	06-25-[illegible]
Total Barium .....:	360.	mg/Kg	10.0	07-02-[illegible]
Total Beryllium .....:	<2.5	mg/Kg	2.5	06-26-92
Total Cadmium .....:	<2.5	mg/Kg	2.5	07-02-92
Total Chromium .....:	9.0	mg/Kg	5.0	07-02-92
Total Cobalt .....:	<0.02	mg/Kg	0.02	06-26-92
Total Copper .....:	12.	mg/Kg	2.5	06-26-92
Total Lead .....:	21.	mg/Kg	10.0	07-02-92
Total Mercury .....:	<0.50	mg/Kg	0.50	06-26-92
Total Nickel .....:	3.5	mg/Kg	2.5	07-11-92
Total Selenium .....:	<2.5	mg/Kg	2.5	07-02-92
Total Silver .....:	8.5	mg/Kg	2.5	07-02-92
Total Tin .....:	4.0	mg/Kg	2.5	06-26-92
Total Thallium .....:	<5.0	mg/Kg	5.0	06-26-92
Total Vanadium .....:	9.5	mg/Kg	2.5	06-26-92
Total Zinc .....:	42.	mg/Kg	2.5	07-13-92

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Las Cruces, NM 88001

SAMPLE NO. : 6201694
INVOICE NO.: 62120502
REPORT DATE: 07-08-92
REVIEWED BY:
PAGE : 1 OF 2

CLIENT SAMPLE ID : ET1
SAMPLE TYPE .....: Soil
SAMPLED BY .....: D. Bollschweiler
SUBMITTED BY ....: L. Thurman
SAMPLE SOURCE ...: WSMR Evap Tank
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 06-22-92
SUBMITTAL DATE : 06-23-92
EXTRACTION DATE: 06-25-92
ANALYSIS DATE .: 06-25-92

Method 8260 - Volatile Organics
Appendix IX Compounds

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
Acetone	<100.	ug/Kg	100.
Acrolein	<1000.	ug/Kg	1000.
Acrylonitrile	<1000.	ug/Kg	1000.
Benzene	<50.	ug/Kg	50.
Bromodichloromethane	<100.	ug/Kg	100.
Bromoform	<100.	ug/Kg	100.
Bromomethane	<100.	ug/Kg	100.
Carbon Disulfide	<10.	ug/Kg	10.
Carbon tetrachloride	<50.	ug/Kg	50.
Chlorobenzene	<50.	ug/Kg	50.
Dibromochloromethane	<100.	ug/Kg	100.
Chloroethane	<100.	ug/Kg	100.
Chloroform	<50.	ug/Kg	50.
Chloromethane	<100.	ug/Kg	100.
3-Chloropropene	<100.	ug/Kg	100.
1,2-Dibromo-3-chloropropane	<50.	ug/Kg	50.
1,2Dibromoethane	<100.	ug/Kg	100.
Dibromomethane	<250.	ug/Kg	250.
trans-1,4-Dichloro-2-Butene	<100.	ug/Kg	100.
Dichlorodifluoromethane	<250.	ug/Kg	250.
1,1-Dichloroethane	<50.	ug/Kg	50.
1,2-Dichloroethane	<50.	ug/Kg	50.
1,1-Dichloroethene	<50.	ug/Kg	50.
trans 1,2-Dichloroethene	<50.	ug/Kg	50.
Dichloromethane	<50.	ug/Kg	50.
1,2-Dichloropropane	<50.	ug/Kg	50.
Chloroethylvinyl Ether	<50.	ug/Kg	50.
Cis 1,3-Dichloropropylene	<50.	ug/Kg	50.
1,4-Dioxane	<200.	ug/Kg	200.
Ethylbenzene	<50.	ug/Kg	50.

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Las Cruces, NM 88001

SAMPLE NO. : 6201694
INVOICE NO.: 62120502
REPORT DATE: 07-08-92
REVIEWED BY:

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide ....:	<500.	ug/Kg	500.
Ethylmethacrylate ....:	<1000.	ug/Kg	1000.
2-Hexanone ....:	<100.	ug/Kg	100.
Iodomethane (Methyliodide) ....:	<100.	ug/Kg	100.
Isobutyl alcohol ....:	<100.	ug/Kg	100.
Methacrylonitrile ....:	<500.	ug/Kg	500.
Methyl ethyl ketone ....:	<100.	ug/Kg	100.
Methyl Methacrylate ....:	<500.	ug/Kg	500.
Methyl isobutyl ketone ....:	<100.	ug/Kg	100.
Styrene ....:	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethene ....:	<50.	ug/Kg	50.
Toluene ....:	<50.	ug/Kg	50.
1,1,1-Trichloroethane ....:	<50.	ug/Kg	50.
1,1,2-Trichloroethane ....:	<50.	ug/Kg	50.
Trichloroethene ....:	<50.	ug/Kg	50.
Trichlorofluoromethane ....:	<100.	ug/Kg	100.
1,2,3-Trichloropropane ....:	<50.	ug/Kg	50.
Vinyl Acetate ....:	<1000.	ug/Kg	1000.
Vinyl chloride ....:	<100.	ug/Kg	100.
Xylenes ....:	<10.	ug/Kg	10.

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Las Cruces, NM 88001

SAMPLE NO. : 6201694
INVOICE NO.: 62120502
REPORT DATE: 07-13-92
REVIEWED BY:

CLIENT SAMPLE ID : ET1
SAMPLE TYPE .....: Soil
SAMPLED BY .....: D. Bollschweiler
SUBMITTED BY ....: L. Thurman
SAMPLE SOURCE ...: WSMR Evap Tank
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 06-22-92
SUBMITTAL DATE : 06-23-92
EXTRACTION DATE: 06-29-92
ANALYSIS DATE .: 07-02-92

Method 8270 - Semi-Volatile Organics
Appendix IX Compounds

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
2-sec-Butyl-4,6-Dinitrophenol ....:	<200.	ug/Kg	200.
4-Chloro-3-methylphenol .....:	<200.	ug/Kg	200.
2-Chlorophenol .....:	<200.	ug/Kg	200.
2,4-Dichlorophenol .....:	<200.	ug/Kg	200.
2,6 Dichorophenol .....:	<200.	ug/Kg	200.
2,4-Dimethylphenol .....:	<200.	ug/Kg	200.
4,6-Dinitro-2-Methylphenol .....:	<200.	ug/Kg	200.
2,4-Dinitrophenol .....:	<200.	ug/Kg	200.
2-Methylphenol .....:	<200.	ug/Kg	200.
3-Methylphenol .....:	<200.	ug/Kg	200.
4-Methylphenol .....:	<100.	ug/Kg	100.
2-Nitrophenol .....:	<200.	ug/Kg	200.
4-Nitrophenol .....:	<500.	ug/Kg	500.
Pentachlorophenol .....:	<300.	ug/Kg	300.
Phenol .....:	<200.	ug/Kg	200.
2,3,4,6-Tetrachlorophenol .....:	<100.	ug/Kg	100.
2,4,5-Trichlorophenol .....:	<100.	ug/Kg	100.
2,4,6-Trichlorophenol .....:	<100.	ug/Kg	100.
Acenaphthene .....:	<200.	ug/Kg	200.
Acenaphthylene .....:	<200.	ug/Kg	200.
Acetophenone .....:	<660.	ug/Kg	660.
2-Acetylaminofluorene .....:	<200.	ug/Kg	200.
4-Aminobiphenyl .....:	<200.	ug/Kg	200.
Aniline .....:	<500.	ug/Kg	500.
Anthracene .....:	<200.	ug/Kg	200.
Aramite .....:	<1300.	ug/Kg	1300.
Benzo(a)anthracene .....:	<200.	ug/Kg	200.
Benzo(a)pyrene .....:	<200.	ug/Kg	200.
Benzo(b)fluoranthene .....:	<660.	ug/Kg	660.
Benzo(ghi)perylene .....:	<200.	ug/Kg	200.

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2755 North Main
Las Cruces, NM 88001

SAMPLE NO. : 6201694
INVOICE NO.: 62120502
REPORT DATE: 07-13-92
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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Benzo(K)fluoranthene .....:	<200.	ug/Kg	200.
Benzyl alcohol .....:	<1300.	ug/Kg	1300.
Bis(2-Chloroethoxyl)methane .....:	<200.	ug/Kg	200.
Bis(2-Chloroethyl)ether .....:	<200.	ug/Kg	200.
Bis(2-chloroisopropyl)ether .....:	<200.	ug/Kg	200.
Bis(2-ethylhexyl) phthalate .....:	<200.	ug/Kg	200.
4-Bromophenyl phenyl ether .....:	<100.	ug/Kg	100.
Butyl benzyl phthalate .....:	<200.	ug/Kg	200.
Di-n-butyl phthalate .....:	<100.	ug/Kg	100.
2-Chloro-1,3-Butadiene .....:	<100.	ug/Kg	100.
4-Chloroaniline .....:	<200.	ug/Kg	200.
Chlorobenzilate .....:	<3300.	ug/Kg	3300.
2-Chloronaphthalene .....:	<200.	ug/Kg	200.
4-Chlorophenyl phenyl ether .....:	<200.	ug/Kg	200.
Chrysene .....:	<200.	ug/Kg	200.
Diallate (cis of trans) .....:	<660.	ug/Kg	660.
Dibenzo(a,h)anthracene .....:	<200.	ug/Kg	200.
Dibenzofuran .....:	<660.	ug/Kg	660.
1,2-Dichlorobenzene .....:	<200.	ug/Kg	200.
1,3-Dichlorobenzene .....:	<200.	ug/Kg	200.
1,4-Dichlorobenzene .....:	<200.	ug/Kg	200.
3,3'-Dichlorobenzidine .....:	<300.	ug/Kg	300.
Diethyl Phthalate .....:	<200.	ug/Kg	200.
O,O-Diethyl-O-2-Pyrazinyl .....:	<1000.	ug/Kg	1000.
Phosphorothioate .....:			
Dimethoate .....:	<1300.	ug/Kg	1300.
a,a Dimethylphenethylamine .....:	<1000.	ug/Kg	1000.
Dimethyl phthalate .....:	<200.	ug/Kg	200.
p-Dimethylaminozobenzene .....:	<1000.	ug/Kg	1000.
7,12-Dimethylbenz(a)anthracene ...:	<660.	ug/Kg	660.
3,3'-Dimethylbenzidine .....:	<660.	ug/Kg	660.
M-Dimitrobenzene .....:	<200.	ug/Kg	200.
2,4-Dinitrotoluene .....:	<200.	ug/Kg	200.
2,6-Dinitrotoluene .....:	<200.	ug/Kg	200.
Disulfoton .....:	<660.	ug/Kg	660.
Ethyl Methanesulfonate .....:	<1300.	ug/Kg	1300.
Famphur .....:	<1300.	ug/Kg	1300.
Fluoranthene .....:	<200.	ug/Kg	200.

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SAMPLE NO. : 6201694
INVOICE NO.: 62120502
REPORT DATE: 07-13-92
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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Fluorene	<200.	ug/Kg	200.
Hexachlorobutadiene	<200.	ug/Kg	200.
Hexachlorobenzene	<200.	ug/Kg	200.
Hexachlorocyclopentadiene	<200.	ug/Kg	200.
Hexachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Hexachlorodibenzofurans	<200.	ug/Kg	200.
Hexachloroethane	<200.	ug/Kg	200.
Hexachlorophene	<3300.	ug/Kg	3300.
Hexachloropropene	<660.	ug/Kg	660.
Indo(1,2,3-cd)pyrene	<200.	ug/Kg	200.
Isophorone	<200.	ug/Kg	200.
Isosafrole	<660.	ug/Kg	660.
Kepone	<1300.	ug/Kg	1300.
Methapyrilene	<6600.	ug/Kg	6600.
Methylmethansulfonate	<660.	ug/Kg	660.
3-Methylcholanthrene	<200.	ug/Kg	200.
3-Methylcholanthrene	<200.	ug/Kg	200.
2-Methylnaphthalene	<660.	ug/Kg	660.
Napthalene	<200.	ug/Kg	200.
1,4-Naphthoquinone	<660.	ug/Kg	660.
1-Naphthylamine	<660.	ug/Kg	660.
2-Naphthylamine	<200.	ug/Kg	200.
5-Nitro-o-toluidine	<660.	ug/Kg	660.
2-Nitrophenol	<200.	ug/Kg	200.
3-Nitroaniline	<1000.	ug/Kg	1000.
4-Nitroaniline	<1000.	ug/Kg	1000.
Nitrobenzene	<200.	ug/Kg	200.
4-Nitroquinoline-1-oxide	<2600.	ug/Kg	2600.
N-Nitrosodibutylamine	<200.	ug/Kg	200.
N-Nitroso-di-n-propylamine	<200.	ug/Kg	200.
N-Nitrosodiethylamine	<200.	ug/Kg	200.
N-Nitroso Dimethyl Amine	<400.	ug/Kg	400.
N-Nitrosodiphenylamine	<200.	ug/Kg	200.
N-Nitrosomethylethylamine	<100.	ug/Kg	100.
N-Nitrosomorpholine	<200.	ug/Kg	200.
N-Nitrosopiperidine	<1000.	ug/Kg	1000.
N-Nitrosopyrrolidine	<2600.	ug/Kg	2600.
Di-n-Octyl Phthalate	<100.	ug/Kg	100.

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SAMPLE NO. : 6201694
INVOICE NO.: 62120502
REPORT DATE: 07-13-92
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D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Pentachlorobenzene ....:	<100.	ug/Kg	100.
Pentachlorodibenzo-p-Dioxins ....:	<200.	ug/Kg	200.
Pentachlorodibenzofurans ....:	<200.	ug/Kg	200.
Pentachloroethane ....:	<100.	ug/Kg	100.
Pentachloronitrobenzene ....:	<1300.	ug/Kg	1300.
Phenacetin ....:	<1300.	ug/Kg	1300.
Phenanthrene ....:	<200.	ug/Kg	200.
Phorate ....:	<660.	ug/Kg	660.
2-Picoline ....:	<500.	ug/Kg	500.
Pronamide ....:	<660.	ug/Kg	660.
Pyrene ....:	<200.	ug/Kg	200.
Pyridine ....:	<1000.	ug/Kg	1000.
Safrole ....:	<660.	ug/Kg	660.
1,2,4,5-Tetrachlorobenzene ....:	<660.	ug/Kg	660.
2,3,7,8-Tetrchlorodibenzo-p-dioxin :	<200.	ug/Kg	200.
Tetrachlorodibenzo-p-dioxins ....:	<200.	ug/Kg	200.
Tetrachlordibenzofurans ....:	<200.	ug/Kg	200.
1,1,1,2-Tetrachloroethane ....:	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethane ....:	<50.	ug/Kg	50.
Tetraethlydithiopyrophosphate ....:	<1000.	ug/Kg	1000.
1,2,4-Trichlorobenzene ....:	<200.	ug/Kg	200.
Methyl parathion ....:	<660.	ug/Kg	660.
Parathion ....:	<660.	ug/Kg	660.
2,4,5-TP (Silvex) ....:	<500.	ug/Kg	500.
2,4,5-T ....:	<500.	ug/Kg	500.

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SAMPLE NO. : 6201694
INVOICE NO.: 62120502
REPORT DATE: 07-08-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ET1
SAMPLE TYPE .....: Soil
SAMPLED BY .....: D. Bollschweiler
SUBMITTED BY ....: L. Thurman
SAMPLE SOURCE ...: WSMR Evap Tank
ANALYST .....: S. SMITH

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 06-22-92
SUBMITTAL DATE : 06-23-92
EXTRACTION DATE: 06-25-92
ANALYSIS DATE .: 07-06-92

Method 8080 - Pesticides & PCB'S

DATA TABLE

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/Kg	10.
4,4'-DDE	<10.	ug/Kg	10.
4,4'-DDT	<10.	ug/Kg	10.
Aldrin	<10.	ug/Kg	10.
alpha-BHC	<10.	ug/Kg	10.
beta-BHC	<10.	ug/Kg	10.
delta-BHC	<10.	ug/Kg	10.
Chlordane	<150.	ug/Kg	150.
Dieldrin	<10.	ug/Kg	10.
Endosulfan I	<10.	ug/Kg	10.
Endosulfan II	<10.	ug/Kg	10.
Endosulfan sulfate	<10.	ug/Kg	10.
Endrin	<10.	ug/Kg	10.
Endrin aldehyde	<10.	ug/Kg	10.
Heptachlor	<10.	ug/Kg	10.
Hetachlor Epoxide	<10.	ug/Kg	10.
Hexachlorobenzene	<25.	ug/Kg	25.
Lindane	<10.	ug/Kg	10.
Methoxychlor	<40.	ug/Kg	40.
Toxaphene	<250.	ug/Kg	250.
PCB 1016	<100.	ug/Kg	100.
PCB 1221	<500.	ug/Kg	500.
PCB 1232	<100.	ug/Kg	100.
PCB 1242	<100.	ug/Kg	100.
PCB 1248	<100.	ug/Kg	100.
PCB 1254	<100.	ug/Kg	100.
PCB 1260	<100.	ug/Kg	100.

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SAMPLE NO. : 6201695
INVOICE NO.: 62120502
REPORT DATE: 07-08-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ET2
SAMPLE TYPE .....: Water
SAMPLED BY .....: D. Bollschweilwer
SUBMITTED BY ....: L. Thurman
SAMPLE SOURCE ...: WSMR Evap Tank

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 06-22-92
SUBMITTAL DATE : 06-23-92
EXTRACTION DATE: --

Inorganic Non-Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Ammenable .....:	<0.01	mg/L	0.01	07-06-92
Cyanide, Total(Distillation) .....:	0.42	mg/L	0.01	06-30-

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SAMPLE NO. : 6201695
INVOICE NO.: 62120502
REPORT DATE: 07-08-92
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PAGE : 1 OF 1

CLIENT SAMPLE ID : ET2
SAMPLE TYPE .....: Water
SAMPLED BY .....: D. Bollschweilwer
SUBMITTED BY ....: L. Thurman
SAMPLE SOURCE ...: WSMR Evap Tank

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 06-22-92
SUBMITTAL DATE : 06-23-92
EXTRACTION DATE: --

Inorganic Chemistry-Total Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Total Antimony .....:	0.05	mg/L	0.05	07-13-92
Total Arsenic .....:	<0.01	mg/L	0.01	07-01-92
Total Barium .....:	30.	mg/L	0.20	07-02-92
Total Beryllium .....:	<0.05	mg/L	0.05	07-13-92
Total Cadmium .....:	0.05	mg/L	0.05	07-02-92
Total Chromium .....:	0.10	mg/L	0.10	07-02-92
Total Cobalt .....:	<0.05	mg/L	0.05	07-13-92
Total Copper .....:	0.13	mg/L	0.05	07-06-92
Total Lead .....:	0.62	mg/L	0.20	07-02-92
Total Mercury .....:	<0.001	mg/L	0.001	07-02-92
Total Nickel .....:	0.24	mg/L	0.05	07-06-92
Total Selenium .....:	<0.05	mg/L	0.05	07-02-92
Total Silver .....:	0.25	mg/L	0.05	07-02-92
Total Tin .....:	<1.0	mg/L	1.0	07-13-92
Total Thallium .....:	<0.05	mg/L	0.05	07-13-92
Total Vanadium .....:	<0.05	mg/L	0.05	07-13-92
Total Zinc .....:	0.24	mg/L	0.05	07-06-92

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REPORT DATE: 07-08-92
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PAGE : 1 OF 2

CLIENT SAMPLE ID : ET2
SAMPLE TYPE .....: Water
SAMPLED BY .....: D. Bollschweilwer
SUBMITTED BY ....: L. Thurman
SAMPLE SOURCE ...: WSMR Evap Tank
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 06-22-92
SUBMITTAL DATE : 06-23-92
EXTRACTION DATE: 06-26-92
ANALYSIS DATE .: 06-29-92

Method 8260 - Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
Acetone	<20.	ug/L	20.
Acrolein	<100.	ug/L	100.
Acrylonitrile	<100.	ug/L	100.
Benzene	<5.0	ug/L	5.0
Bromodichloromethane	<5.0	ug/L	5.0
Bromoform	<5.0	ug/L	5.0
Bromomethane	<5.0	ug/L	5.0
Carbon Disulfide	<1.0	ug/L	1.0
Carbon tetrachloride	<2.5	ug/L	2.5
Chlorobenzene	<5.0	ug/L	5.0
Dibromochloromethane	<5.0	ug/L	10.
Chloroethane	<5.0	ug/L	10.
Chloroform	<2.5	ug/L	2.5
Chloromethane	<5.0	ug/L	5.0
3-Chloropropene	<10.	ug/L	10.
Dibromochloropropane	<10.	ug/L	10.
1,2-Dibromoethane (EDB)	<10.	ug/L	10.
Dibromomethane	<5.0	ug/L	5.0
Trans-1,4-Dichloro-2-Butene	<10.	ug/L	10.
Dichlorodifluoromethane	<10.	ug/L	10.
1,1-Dichloroethane	<2.5	ug/L	2.5
1,2-Dichloroethane	<2.5	ug/L	2.5
1,1-Dichloroethene	<2.5	ug/L	2.5
trans 1,2-Dichloroethene	<1.5	ug/L	1.5
Dichloromethane	<2.5	ug/L	2.5
1,2-Dichloropropane	<2.5	ug/L	2.5
cis 1,3-Dichloropropylene	<5.0	ug/L	5.0
Cis 1,3-Dichloropropylene	<5.0	ug/L	5.0
1,4-Dioxane	<20.	ug/L	20.
Ethylbenzene	<5.0	ug/L	5.0

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SAMPLE NO. : 6201695
INVOICE NO.: 62120502
REPORT DATE: 07-08-92
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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide ..... :	<100.	ug/L	100.
Ethylmethacrylate ..... :	<100.	ug/L	100.
2-Hexanone ..... :	<20.	ug/L	20.
Iodomethane (Methyliodide) ..... :	<10.	ug/L	10.
Isobutyl alcohol ..... :	<10.	ug/L	10.
Methacrylonitrile ..... :	<50.	ug/L	50.
Methyl ethyl ketone ..... :	<20.	ug/L	20.
Methyl Methacrylate ..... :	<50.	ug/L	50.
Methyl isobutyl ketone ..... :	<20.	ug/L	20.
Styrene ..... :	<2.5	ug/L	2.5
1,1,2,2-Tetrachloroethene ..... :	<5.0	ug/L	5.0
Toluene ..... :	<5.0	ug/L	5.0
1,1,1-Trichloroethane ..... :	<2.5	ug/L	2.5
1,1,2-Trichloroethane ..... :	<2.5	ug/L	2.5
Trichloroethene ..... :	<1.5	ug/L	1.5
Trichlorofluoromethane ..... :	<5.0	ug/L	5.0
1,2,3-Trichloropropane ..... :	<2.5	ug/L	2.5
Vinyl Acetate ..... :	<100.	ug/L	100.
Vinyl chloride ..... :	<5.0	ug/L	5.0
Xylenes ..... :	<1.0	ug/L	1.0

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REPORT DATE: 07-08-92
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CLIENT SAMPLE ID : ET2
SAMPLE TYPE .....: Water
SAMPLED BY .....: D. Bollschweilwer
SUBMITTED BY ....: L. Thurman
SAMPLE SOURCE ...: WSMR Evap Tank
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 06-22-92
SUBMITTAL DATE : 06-23-92
EXTRACTION DATE: 06-26-92
ANALYSIS DATE .: 06-29-92

Method 8270 - Semi Volatile Organics
Appendix IX Compounds

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
2-sec-Butyl-4,6-Dinitrophenol ....:	<10.	ug/L	10.
4-Chloro-3-methylphenol .....:	<20.	ug/L	20.
2-Chlorophenol .....:	<10.	ug/L	10.
2,4-Dichlorophenol .....:	<10.	ug/L	10.
2,6 Dichorophenol .....:	<10.	ug/L	10.
2,4-Dimethylphenol .....:	<10.	ug/L	10.
4,6-Dinitro-2-Methylphenol .....:	<10.	ug/L	10.
2,4-Dinitrophenol .....:	<10.	ug/L	10.
2-Methylphenol .....:	<10.	ug/L	10.
3-Methylphenol .....:	<10.	ug/L	10.
4-Methylphenol .....:	<10.	ug/L	10.
2-Nitrophenol .....:	<10.	ug/L	10.
4-Nitrophenol .....:	<50.	ug/L	50.
Pentachlorophenol .....:	<10.	ug/L	10.
Phenol .....:	<10.	ug/L	10.
2,3,4,6-Tetrachlorophenol .....:	<10.	ug/L	10.
2,4,5-Trichlorophenol .....:	<10.	ug/L	10.
2,4,6-Trichlorophnol .....:	<10.	ug/L	10.
Acenaphthene (H2O) .....:	<10.	ug/L	10.
Acetophenone .....:	<10.	ug/L	10.
Acenaphthylene .....:	<10.	ug/L	10.
2-Acetylaminofluorene .....:	<10.	ug/L	10.
4-Aminobiphenyl .....:	<20.	ug/L	20.
Aniline .....:	<50.	ug/L	50.
Anthracene (H2O) .....:	<10.	ug/L	10.
Aramite (H2O) .....:	<65.	ug/L	65.
Benzo(a)anthracene (H2O) .....:	<10.	ug/L	10.
Benzo(a)pyrene (H2O) .....:	<10.	ug/L	10.
Benzo(b)fluoranthene (H2O) .....:	<30.	ug/L	30.
Benzo(k)fluoranthene (H2O) .....:	<10.	ug/L	10.

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SAMPLE NO. : 6201695
INVOICE NO.: 62120502
REPORT DATE: 07-08-92
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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Benzyl alcohol (H2O) .....:	<130.	ug/L	130.
Bis(2-Chloroethoxy)methane (H2O) .:	<10.	ug/L	10.
Bis(2-Chloroethyl)ether (H2O) ....:	<10.	ug/L	10.
Bis(2-chloroisopropyl)ether .....:	<10.	ug/L	10.
Bis(2-ethylhexyl) phthalate (H2O) :	<10.	ug/L	10.
4-Bromophenyl phenyl ether .....:	<10.	ug/L	10.
Butyl benzyl phthalate (H2O) .....:	<10.	ug/L	10.
Di-n-butyl phthalate (H2O) .....:	<10.	ug/L	10.
2-Chloro-1,3-Butadiene .....:	<10.	ug/L	10.
4-Chloroaniline .....:	<20.	ug/L	20.
Chlorobenzilate .....:	<100.	ug/L	100.
2-Chloronaphthalene .....:	<10.	ug/L	10.
4-Chlorophenyl phenyl ether .....:	<10.	ug/L	10.
Chrysene (H2O) .....:	<10.	ug/L	10.
Diallate (cis of trans) .....:	<50.	ug/L	50.
Dibenzo(a,h)anthracene (H2O) .....:	<66.	ug/L	66.
Dibenzofuran .....:	<10.	ug/L	10.
1,2-Dichlorobenzene .....:	<10.	ug/L	10.
1,3-Dichlorobenzene .....:	<10.	ug/L	10.
1,4-Dichlorobenzene .....:	<10.	ug/L	10.
3,3'-Dichlorobenzidine .....:	<30.	ug/L	30.
Diethyl Phthalate (H2O) .....:	<10.	ug/L	10.
O,O-Diethyl-O-2-Pyrazinyl- .....:	<10.	ug/L	10.
Phosphorothioate .....:			
Dimethoate (H2O) .....:	<130.	ug/L	130.
a,a Dimethylphenethylamine (H2O) .:	<10.	ug/L	10.
Dimethyl phthalate (H2O) .....:	<10.	ug/L	10.
p-Dimethylaminozobenzene .....:	<10.	ug/L	10.
7,12-Dimethylbenz(a)anthracene ...:	<66.	ug/L	66.
(H2O) .....:			
3,3'-Dimethylbenzidine .....:	<66.	ug/L	66.
M-Dimitrobenzene .....:	<10.	ug/L	10.
2,4-Dinitrotoluene .....:	<10.	ug/L	10.
2,6-Dinitrotoluene .....:	<10.	ug/L	10.
Disulfoton .....:	<66.	ug/L	66.
Ethyl Methanesulfonate .....:	<130.	ug/L	130.
Famphur .....:	<130.	ug/L	130.
Fluoranthene .....:	<10.	ug/L	10.

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CLIENT Advanced Sciences Inc.
Attn: David Bollschweiler
2755 North Main
Las Cruces, NM 88001

SAMPLE NO. : 6201695
INVOICE NO.: 62120502
REPORT DATE: 07-08-92
REVIEWED BY:

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Fluorene	<10.	ug/L	10.
Hexachlorobutadiene	<10.	ug/L	10.
Hexachlorobenzene	<10.	ug/L	10.
Hexachlorocyclopentadiene	<10.	ug/L	10.
Hexachlorodibenzo-p-Dioxins	<20.	ug/L	20.
Hexachlorodibenzofurans	<20.	ug/L	20.
Hexachloroethane	<10.	ug/L	10.
Hexachlorophene	<330.	ug/L	330.
Hexachloropropene	<66.	ug/L	66.
Indeno(e,2,3-cd)pyrene	<10.	ug/L	10.
Isophorone	<10.	ug/L	10.
Isosafrole	<66.	ug/L	66.
Kepone	<130.	ug/L	130.
Methapyrilene	<660.	ug/L	660.
Methylmethansulfonate	<66.	ug/L	66.
3-Methylcholanthrene	<10.	ug/L	10.
2-Methylnaphthalene	<66.	ug/L	66.
Napthalene	<10.	ug/L	10.
1,4-Naphthoquinone	<66.	ug/L	66.
1-Naphthylamine	<66.	ug/L	66.
2-Naphthylamine	<66.	ug/L	66.
2-Naphthylamine	<10.	ug/L	10.
5-Nitro-o-toluidine	<66.	ug/L	66.
2-Nitrophenol	<10.	ug/L	10.
3-Nitroaniline	<50.	ug/L	50.
4-Nitroaniline	<10.	ug/L	10.
Nitrobenzene	<10.	ug/L	10.
4-Nitroquinoline-1-oxide	<260.	ug/L	260.
N-Nitrosodibutylamine	<10.	ug/L	10.
N-Nitroso-di-n-propylamine	<10.	ug/L	10.
N-Nitrosodiethylamine	<10.	ug/L	10.
N-Nitroso Dimethyl Amine	<20.	ug/L	20.
N-Nitrosodiphenylamine	<10.	ug/L	10.
N-Nitrosomethylethylamine	<10.	ug/L	10.
N-Nitrosomorpholine	<10.	ug/L	10.
N-Nitrosopiperidine	<130.	ug/L	130.
N-Nitrosopyrrolidine	<260.	ug/L	260.
Di-n-Octyl Phthalate	<10.	ug/L	10.

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SAMPLE NO. : 6201695
INVOICE NO.: 62120502
REPORT DATE: 07-08-92
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D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Pentachlorobenzene ..... :	<66.	ug/L	66.
Pentachlorodibenzo-p-Dioxins ..... :	<10.	ug/L	10.
Pentachlorodibenzofurans ..... :	<10.	ug/L	10.
Pentachloroethane ..... :	<10.	ug/L	10.
Pentachloronitrobenzene ..... :	<130.	ug/L	130.
Phenacetin ..... :	<130.	ug/L	130.
Phenanthrene ..... :	<10.	ug/L	10.
Phorate ..... :	<66.	ug/L	66.
2-Picoline ..... :	<10.	ug/L	10.
Pronamide ..... :	<66.	ug/L	66.
Pyrene ..... :	<10.	ug/L	10.
Pyridine ..... :	<10.	ug/L	10.
Safrole ..... :	<66.	ug/L	66.
1,2,4,5-Tetrachlorobenzene ..... :	<66.	ug/L	66.
2,3,7,8-Tetrchlorodibenzo-p-dioxin :	<10.	ug/L	10.
Tetrachlorodibenzo-p-dioxins ..... :	<10.	ug/L	10.
Tetrachlordibenzofurans ..... :	<10.	ug/L	10.
1,1,1,2-Tetrachloroethane ..... :	<10.	ug/L	10.
1,1,2,2-Tetrachloroethane ..... :	<10.	ug/L	10.
Tetraethlydithiopyrophosphate .... :	<10.	ug/L	10.
1,2,4-Trichlorobenzene ..... :	<10.	ug/L	10.
Methyl parathion ..... :	<66.	ug/L	66.
Parathion ..... :	<66.	ug/L	66.
2,4,5-TP (Silvex) ..... :	<10.	ug/L	10.
2,4,5-T ..... :	<10.	ug/L	10.

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SAMPLE NO. : 6201695
INVOICE NO.: 62120502
REPORT DATE: 07-08-92
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PAGE : 1 OF 1

CLIENT SAMPLE ID : ET2
SAMPLE TYPE .....: Water
SAMPLED BY .....: D. Bollschweilwer
SUBMITTED BY ....: L. Thurman
SAMPLE SOURCE ...: WSMR Evap Tank
ANALYST .....: S. SMITH

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 06-22-92
SUBMITTAL DATE : 06-23-92
EXTRACTION DATE: 06-24-92
ANALYSIS DATE .: 06-30-92

Method 8080 - Pesticides & PCB'S

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<0.30	ug/L	0.30
4,4'-DDE	<0.30	ug/L	0.30
4,4'-DDT	<0.30	ug/L	0.30
Aldrin	<0.30	ug/L	0.30
alpha-BHC	<0.30	ug/L	0.30
beta-BHC	<0.30	ug/L	0.30
delta-BHC	<0.30	ug/L	0.30
Chlordane	<4.5	ug/L	4.5
Dieldrin	<0.30	ug/L	0.30
Endosulfan I	<0.30	ug/L	0.30
Endosulfan II	<0.30	ug/L	0.30
Endosulfan sulfate	<0.30	ug/L	0.30
Endrin	<0.30	ug/L	0.30
Endrin aldehyde	<0.30	ug/L	0.30
Heptachor	<0.30	ug/L	0.30
Hetachlor Epoxide	<0.30	ug/L	0.30
Hexachlorobenzene	<1.5	ug/L	1.5
Lindane	<0.3	ug/L	0.3
Methoxychlor	<1.2	ug/L	1.2
Toxaphene	<7.5	ug/L	7.5
PCB 1016	<3.0	ug/L	3.0
PCB 1221	<150.	ug/L	150.
PCB 1232	<3.0	ug/L	3.0
PCB 1242	<3.0	ug/L	3.0
PCB 1248	<3.0	ug/L	3.0
PCB 1254	<3.0	ug/L	3.0
PCB 1260	<3.0	ug/L	3.0

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SAMPLE NO. : 6201696
INVOICE NO.: 62120502
REPORT DATE: 07-08-92
REVIEWED BY:
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CLIENT SAMPLE ID : ET3
SAMPLE TYPE .....: Soil
SAMPLED BY .....: D. Bollschweiler
SUBMITTED BY ....: L. Thurman
SAMPLE SOURCE ...: WSMR Evap Tank, bkgd

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 06-22-92
SUBMITTAL DATE : 06-23-92
EXTRACTION DATE: --

Inorganic Non-Metals

D A T A T A B L E

Parameter	Result	Unit	Detection Limit	Analysis Date
Cyanide, Ammenable .....:	<1.0	mg/Kg	1.0	07-06-92
Cyanide, Total(Distillation) .....:	<1.0	mg/Kg	1.0	06-30-92

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SAMPLE NO. : 6201696
INVOICE NO.: 62120502
REPORT DATE: 07-08-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ET3
SAMPLE TYPE .....: Soil
SAMPLED BY .....: D. Bollschweiler
SUBMITTED BY ....: L. Thurman
SAMPLE SOURCE ...: WSMR Evap Tank, bkgd

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 06-22-92
SUBMITTAL DATE : 06-23-92
EXTRACTION DATE: --

Inorganic Chemistry-Total Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date
Total Antimony .....:	<2.5	mg/Kg	2.5	06-26-92
Total Arsenic .....:	1.2	mg/Kg	2.5	06-25-92
Total Barium .....:	220.	mg/Kg	10.0	07-02-92
Total Beryllium .....:	<2.5	mg/Kg	2.5	06-26-92
Total Cadmium .....:	<2.5	mg/Kg	2.5	07-02-92
Total Chromium .....:	<5.0	mg/Kg	5.0	07-02-92
Total Cobalt .....:	<2.5	mg/Kg	2.5	06-26-92
Total Copper .....:	<2.5	mg/Kg	2.5	06-26-92
Total Lead .....:	<10.0	mg/Kg	10.0	07-02-92
Total Mercury .....:	<0.50	mg/Kg	0.50	06-26-92
Total Nickel .....:	<2.5	mg/Kg	2.5	07-10-92
Total Selenium .....:	<2.5	mg/Kg	2.5	07-02-92
Total Silver .....:	3.5	mg/Kg	2.5	07-02-92
Total Tin .....:	4.0	mg/Kg	2.5	06-26-92
Total Thallium .....:	<5.0	mg/Kg	5.0	06-26-92
Total Vanadium .....:	13.	mg/Kg	2.5	06-26-92
Total Zinc .....:	11.	mg/Kg	2.5	07-13-92

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SAMPLE NO. : 6201696
INVOICE NO.: 62120502
REPORT DATE: 07-08-92
REVIEWED BY:

CLIENT SAMPLE ID : ET3
SAMPLE TYPE .....: Soil
SAMPLED BY .....: D. Bollschweiler
SUBMITTED BY ....: L. Thurman
SAMPLE SOURCE ...: WSMR Evap Tank, bkgd
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 06-22-92
SUBMITTAL DATE : 06-23-92
EXTRACTION DATE: 06-28-92
ANALYSIS DATE .: 06-28-92

Method 8260 - Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
Acetone	<100.	ug/Kg	100.
Acrolein	<1000.	ug/Kg	1000.
Acrylonitrile	<1000.	ug/Kg	1000.
Benzene	<50.	ug/Kg	50.
Bromodichloromethane	<100.	ug/Kg	100.
Bromoform	<100.	ug/Kg	100.
Bromomethane	<100.	ug/Kg	100.
Carbon Disulfide	<10.	ug/Kg	10.
Carbon tetrachloride	<50.	ug/Kg	50.
Chlorobenzene	<50.	ug/Kg	50.
Dibromochloromethane	<100.	ug/Kg	100.
Chloroethane	<100.	ug/Kg	100.
Chloroform	<50.	ug/Kg	50.
Chloromethane	<100.	ug/Kg	100.
3-Chloropropene	<100.	ug/Kg	100.
1,2-Dibromo-3-chloropropane	<50.	ug/Kg	50.
1,2Dibromoethane	<100.	ug/Kg	100.
Dibromomethane	<250.	ug/Kg	250.
trans-1,4-Dichloro-2-Butene	<100.	ug/Kg	100.
Dichlorodifluoromethane	<250.	ug/Kg	250.
1,1-Dichloroethane	<50.	ug/Kg	50.
1,2-Dichloroethane	<50.	ug/Kg	50.
1,1-Dichloroethene	<50.	ug/Kg	50.
trans 1,2-Dichloroethene	<50.	ug/Kg	50.
Dichloromethane	<50.	ug/Kg	50.
1,2-Dichloropropane	<50.	ug/Kg	50.
Chloroethylvinyl Ether	<50.	ug/Kg	50.
Cis 1,3-Dichloropropylene	<50.	ug/Kg	50.
1,4-Dioxane	<200.	ug/Kg	200.
Ethylbenzene	<50.	ug/Kg	50.

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SAMPLE NO. : 6201696
INVOICE NO.: 62120502
REPORT DATE: 07-08-92
REVIEWED BY:
PAGE : 2 OF 2

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide ..... :	<500.	ug/Kg	500.
Ethylmethacrylate ..... :	<1000.	ug/Kg	1000.
2-Hexanone ..... :	<100.	ug/Kg	100.
Iodomethane (Methyliodide) ..... :	<100.	ug/Kg	100.
Isobutyl alcohol ..... :	<100.	ug/Kg	100.
Methacrylonitrile ..... :	<500.	ug/Kg	500.
Methyl ethyl ketone ..... :	<100.	ug/Kg	100.
Methyl Methacrylate ..... :	<500.	ug/Kg	500.
Methyl isobutyl ketone ..... :	<100.	ug/Kg	100.
Styrene ..... :	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethene ..... :	<50.	ug/Kg	50.
Toluene ..... :	<50.	ug/Kg	50.
1,1,1-Trichloroethane ..... :	<50.	ug/Kg	50.
1,1,2-Trichloroethane ..... :	<50.	ug/Kg	50.
Trichloroethene ..... :	<50.	ug/Kg	50.
Trichlorofluoromethane ..... :	<100.	ug/Kg	100.
1,2,3-Trichloropropane ..... :	<50.	ug/Kg	50.
Vinyl Acetate ..... :	<1000.	ug/Kg	1000.
Vinyl chloride ..... :	<100.	ug/Kg	100.
Xylenes ..... :	<10.	ug/Kg	10.

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SAMPLE NO. : 6201696
INVOICE NO.: 62120502
REPORT DATE: 07-08-92
REVIEWED BY:

CLIENT SAMPLE ID : ET3
SAMPLE TYPE .....: Soil
SAMPLED BY .....: D. Bollschweiler
SUBMITTED BY ....: L. Thurman
SAMPLE SOURCE ...: WSMR Evap Tank, bkgd
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 06-22-92
SUBMITTAL DATE : 06-23-92
EXTRACTION DATE: 06-29-92
ANALYSIS DATE .: 07-02-92

Method 8270 - Semi-Volatile Organics
Appendix IX Compounds

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
2-sec-Butyl-4,6-Dinitrophenol ....:	<200.	ug/Kg	200.
4-Chloro-3-methylphenol .....:	<200.	ug/Kg	200.
2-Chlorophenol .....:	<200.	ug/Kg	200.
2,4-Dichlorophenol .....:	<200.	ug/Kg	200.
2,6 Dichorophenol .....:	<200.	ug/Kg	200.
2,4-Dimethylphenol .....:	<200.	ug/Kg	200.
4,6-Dinitro-2-Methylphenol .....:	<200.	ug/Kg	200.
2,4-Dinitrophenol .....:	<200.	ug/Kg	200.
2-Methylphenol .....:	<200.	ug/Kg	200.
3-Methylphenol .....:	<200.	ug/Kg	200.
4-Methylphenol .....:	<100.	ug/Kg	100.
2-Nitrophenol .....:	<200.	ug/Kg	200.
4-Nitrophenol .....:	<500.	ug/Kg	500.
Pentachlorophenol .....:	<300.	ug/Kg	300.
Phenol .....:	<200.	ug/Kg	200.
2,3,4,6-Tetrachlorophenol .....:	<100.	ug/Kg	100.
2,4,5-Trichlorophenol .....:	<100.	ug/Kg	100.
2,4,6-Trichlorophenol .....:	<100.	ug/Kg	100.
Acenaphthene .....:	<200.	ug/Kg	200.
Acenaphthylene .....:	<200.	ug/Kg	200.
Acetophenone .....:	<660.	ug/Kg	660.
2-Acetylaminofluorene .....:	<200.	ug/Kg	200.
4-Aminobiphenyl .....:	<200.	ug/Kg	200.
Aniline .....:	<500.	ug/Kg	500.
Anthracene .....:	<200.	ug/Kg	200.
Aramite .....:	<1300.	ug/Kg	1300.
Benzo(a)anthracene .....:	<200.	ug/Kg	200.
Benzo(a)pyrene .....:	<200.	ug/Kg	200.
Benzo(b)fluoranthene .....:	<660.	ug/Kg	660.
Benzo(ghi)perylene .....:	<200.	ug/Kg	200.

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SAMPLE NO. : 6201696
INVOICE NO.: 62120502
REPORT DATE: 07-08-92
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DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Benzo(K)fluoranthene	<200.	ug/Kg	200.
Benzyl alcohol	<1300.	ug/Kg	1300.
Bis(2-Chloroethoxyl)methane	<200.	ug/Kg	200.
Bis(2-Chloroethyl)ether	<200.	ug/Kg	200.
Bis(2-chloroisopropyl)ether	<200.	ug/Kg	200.
Bis(2-ethylhexyl) phthalate	<200.	ug/Kg	200.
4-Bromophenyl phenyl ether	<100.	ug/Kg	100.
Butyl benzyl phthalate	<200.	ug/Kg	200.
Di-n-butyl phthalate	<100.	ug/Kg	100.
2-Chloro-1,3-Butadiene	<100.	ug/Kg	100.
4-Chloroaniline	<200.	ug/Kg	200.
Chlorobenzilate	<3300.	ug/Kg	3300.
2-Chloronaphthalene	<200.	ug/Kg	200.
4-Chlorophenyl phenyl ether	<200.	ug/Kg	200.
Chrysene	<200.	ug/Kg	200.
Diallate (cis of trans)	<660.	ug/Kg	660.
Dibenzo(a,h)anthracene	<200.	ug/Kg	200.
Dibenzofuran	<660.	ug/Kg	660.
1,2-Dichlorobenzene	<200.	ug/Kg	200.
1,3-Dichlorobenzene	<200.	ug/Kg	200.
1,4-Dichlorobenzene	<200.	ug/Kg	200.
3,3'-Dichlorobenzidine	<300.	ug/Kg	300.
Diethyl Phthalate	<200.	ug/Kg	200.
O,O-Diethyl-O-2-Pyrazinyl	<1000.	ug/Kg	1000.
Phosphorothioate			
Dimethoate	<1300.	ug/Kg	1300.
a,a Dimethylphenethylamine	<1000.	ug/Kg	1000.
Dimethyl phthalate	<200.	ug/Kg	200.
p-Dimethylaminozobenzene	<1000.	ug/Kg	1000.
7,12-Dimethylbenz(a)anthracene ...	<660.	ug/Kg	660.
3,3'-Dimethylbenzidine	<660.	ug/Kg	660.
M-Dimitrobenzene	<200.	ug/Kg	200.
2,4-Dinitrotoluene	<200.	ug/Kg	200.
2,6-Dinitrotoluene	<200.	ug/Kg	200.
Disulfoton	<660.	ug/Kg	660.
Ethyl Methanesulfonate	<1300.	ug/Kg	1300.
Famphur	<1300.	ug/Kg	1300.
Fluoranthene	<200.	ug/Kg	200.

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SAMPLE NO. : 6201696
INVOICE NO.: 62120502
REPORT DATE: 07-08-92
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D A T A T A B L E (Cont.)

Parameter	Result	Unit	Detection Limit
Fluorene	<200.	ug/Kg	200.
Hexachlorobutadiene	<200.	ug/Kg	200.
Hexachlorobenzene	<200.	ug/Kg	200.
Hexachlorocyclopentadiene	<200.	ug/Kg	200.
Hexachlorodibenzo-p-Dioxins	<200.	ug/Kg	200.
Hexachlorodibenzofurans	<200.	ug/Kg	200.
Hexachloroethane	<200.	ug/Kg	200.
Hexachlorophene	<3300.	ug/Kg	3300.
Hexachloropropene	<660.	ug/Kg	660.
Indo(1,2,3-cd)pyrene	<200.	ug/Kg	200.
Isophorone	<200.	ug/Kg	200.
Isosafrole	<660.	ug/Kg	660.
Kepone	<1300.	ug/Kg	1300.
Methapyrilene	<6600.	ug/Kg	6600.
Methylmethansulfonate	<660.	ug/Kg	660.
3-Methylcholanthrene	<200.	ug/Kg	200.
3-Methylcholanthrene	<200.	ug/Kg	200.
2-Methylnaphthalene	<660.	ug/Kg	660.
Napthalene	<200.	ug/Kg	200.
1,4-Naphthoquinone	<660.	ug/Kg	660.
1-Naphthylamine	<660.	ug/Kg	660.
2-Naphthylamine	<200.	ug/Kg	200.
5-Nitro-o-toluidine	<660.	ug/Kg	660.
2-Nitrophenol	<200.	ug/Kg	200.
3-Nitroaniline	<1000.	ug/Kg	1000.
4-Nitroaniline	<1000.	ug/Kg	1000.
Nitrobenzene	<200.	ug/Kg	200.
4-Nitroquinoline-1-oxide	<2600.	ug/Kg	2600.
N-Nitrosodibutylamine	<200.	ug/Kg	200.
N-Nitroso-di-n-propylamine	<200.	ug/Kg	200.
N-Nitrosodiethylamine	<200.	ug/Kg	200.
N-Nitroso Dimethyl Amine	<400.	ug/Kg	400.
N-Nitrosodiphenylamine	<200.	ug/Kg	200.
N-Nitrosomethylethylamine	<100.	ug/Kg	100.
N-Nitrosomorpholine	<200.	ug/Kg	200.
N-Nitrosopiperidine	<1000.	ug/Kg	1000.
N-Nitrosopyrrolidine	<2600.	ug/Kg	2600.
Di-n-Octyl Phthalate	<100.	ug/Kg	100.

(1) Copy to Client

Westech Laboratories Inc.
10737 Gateway West, No. 100
El Paso, Texas 79935
(915) 592-3591 • fax 592-3594

CLIENT Advanced Sciences Inc.
Attn: David Bollschweiler
2755 North Main
Las Cruces, NM 88001

SAMPLE NO. : 6201696
INVOICE NO.: 62120502
REPORT DATE: 07-08-92
REVIEWED BY:
PAGE : 4 OF 4

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Pentachlorobenzene ..... :	<100.	ug/Kg	100.
Pentachlorodibenzo-p-Dioxins ..... :	<200.	ug/Kg	200.
Pentachlorodibenzofurans ..... :	<200.	ug/Kg	200.
Pentachloroethane ..... :	<100.	ug/Kg	100.
Pentachloronitrobenzene ..... :	<1300.	ug/Kg	1300.
Phenacetin ..... :	<1300.	ug/Kg	1300.
Phenanthrene ..... :	<200.	ug/Kg	200.
Phorate ..... :	<660.	ug/Kg	660.
2-Picoline ..... :	<500.	ug/Kg	500.
Pronamide ..... :	<660.	ug/Kg	660.
Pyrene ..... :	<200.	ug/Kg	200.
Pyridine ..... :	<1000.	ug/Kg	1000.
Safrole ..... :	<660.	ug/Kg	660.
1,2,4,5-Tetrachlorobenzene ..... :	<660.	ug/Kg	660.
2,3,7,8-Tetrchlorodibenzo-p-dioxin :	<200.	ug/Kg	200.
Tetrachlorodibenzo-p-dioxins ..... :	<200.	ug/Kg	200.
Tetrachlordibenzofurans ..... :	<200.	ug/Kg	200.
1,1,1,2-Tetrachloroethane ..... :	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethane ..... :	<50.	ug/Kg	50.
Tetraethlydithiopyrophosphate .... :	<1000.	ug/Kg	1000.
1,2,4-Trichlorobenzene ..... :	<200.	ug/Kg	200.
Methyl parathion ..... :	<660.	ug/Kg	660.
Parathion ..... :	<660.	ug/Kg	660.
2,4,5-TP (Silvex) ..... :	<500.	ug/Kg	500.
2,4,5-T ..... :	<500.	ug/Kg	500.

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Las Cruces, NM 88001

SAMPLE NO. : 6201696
INVOICE NO.: 62120502
REPORT DATE: 07-08-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ET3
SAMPLE TYPE .....: Soil
SAMPLED BY .....: D. Bollschweiler
SUBMITTED BY ....: L. Thurman
SAMPLE SOURCE ...: WSMR Evap Tank, bkgd
ANALYST .....: S. SMITH

AUTHORIZED BY : D.Bollschweiler
CLIENT P.O. : --
SAMPLE DATE ...: 06-22-92
SUBMITTAL DATE : 06-23-92
EXTRACTION DATE: 06-25-92
ANALYSIS DATE .: 06-30-92

Method 8080 - Pesticides & PCB'S

D A T A T A B L E

Parameter	Result	Unit	Detection Limit
4,4'-DDD	<10.	ug/Kg	10.
4,4'-DDE	<10.	ug/Kg	10.
4,4'-DDT	<10.	ug/Kg	10.
Aldrin	<10.	ug/Kg	10.
alpha-BHC	<10.	ug/Kg	10.
beta-BHC	<10.	ug/Kg	10.
delta-BHC	<10.	ug/Kg	10.
Chlordane	<150.	ug/Kg	150.
Dieldrin	<10.	ug/Kg	10.
Endosulfan I	<10.	ug/Kg	10.
Endosulfan II	<10.	ug/Kg	10.
Endosulfan sulfate	<10.	ug/Kg	10.
Endrin	<10.	ug/Kg	10.
Endrin aldehyde	<10.	ug/Kg	10.
Heptachlor	<10.	ug/Kg	10.
Hetachlor Epoxide	<10.	ug/Kg	10.
Hexachlorobenzene	<25.	ug/Kg	25.
Lindane	<10.	ug/Kg	10.
Methoxychlor	<40.	ug/Kg	40.
Toxaphene	<250.	ug/Kg	250.
PCB 1016	<100.	ug/Kg	100.
PCB 1221	<500.	ug/Kg	500.
PCB 1232	<100.	ug/Kg	100.
PCB 1242	<100.	ug/Kg	100.
PCB 1248	<100.	ug/Kg	100.
PCB 1254	<100.	ug/Kg	100.
PCB 1260	<100.	ug/Kg	100.

(1) Copy to Client

APPENDIX B

PROPOSED SUBPART S GUIDELINES, 27 JULY 1990

X. Regulatory Impact Analysis

A. Executive Order No. 12291 . Regulatory Impact Analysis

1. *Background.* In conjunction with the development of today's proposed rule, EPA performed a regulatory impact analysis (RIA), as mandated by Executive Order 12291. These analyses are required for "major" regulations, defined as those likely to result in annual effects on the economy of $ 100 million or more; a major increase in costs or prices for consumers or individual industries; or significant adverse effects on competition, employment, investment, productivity, innovation, or international trade. The results of the RIA prepared for today's rulemaking demonstrate that the rule is a "major" regulation.

Pursuant to the Regulatory Flexibility Act, 5 U.S.C. 601 *et seq.*, the Agency is also required to assess the impact of a proposed or final rule on small entities (*i.e.*, small businesses, small organizations, and small governmental jurisdictions). The results of this assessment, which was conducted as part of the RIA, are presented below in section X.B.

The complete regulatory impact analysis document is available in the docket established for this proposed rule. The following is a summary of the analytical methodology used in conducting the RIA, and the results of the analysis.

2. *Summary and Major Conclusions.* The analysis conducted by the Agency indicates that the corrective action rule may result in a wide range of costs, depending on the nature of the remedies selected in site-specific decisionmaking. Given the large, national scope of this rule, and the flexibility provided by the provisions outlined in this proposal, these uncertainties are expressed in the following discussion.

Overall, the analysis found that about 31 percent of facilities are projected to require corrective action for releases to ground water from solid waste management units (Media other than ground water were not analyzed due to data and modeling limitations.) The average annualized per facility costs for non-Federal facilities under today's proposed rule are estimated to range between $1.8 million to $0.4 million. The total present value national cost of the proposed rule, as an increment over the pre-HSWA corrective action program, is likely to range between $7 billion and $42 billion. The costs of cleaning up Federal facilities, presented separately, are much more uncertain and could range between $3 billion to $18 billion.

The above results reflect two of four regulatory alternatives that were analyzed which the Agency believes reflect the flexibility inherent in the proposed rule. These alternatives provide an upper and lower bound to the costs of the proposed rule and reflect the Agency's uncertainty about several of the data and assumptions used in estimating costs, such as the types of remedial measures that will be ultimately implemented. While both regulatory alternatives would require cleanup to health-based levels, the key distinction between them is in the choice of allowable corrective action remedies. The analysis assumed that the lower bound option would be more flexible than the upper bound (*e.g.*, by allowing use of exposure controls in cases where certain remedies were technically infeasible or prohibitively expensive).

3. *Scope and Analytical Approach.* In developing the RIA for today's proposed rule, the Agency analyzed both qualitatively and quantitatively several basic alternatives which could have been adopted in structuring the corrective action rule The alternatives studied cover a range, from a highly conservative "cleanup to background" approach with very little flexibility in adjusting remedies for site-specific conditions, to alternatives which trigger cleanup of releases in only limited circumstances, and would allow, in many cases, contamination to remain within a facility's property and beyond. The analysis indicates that these alternatives have quite different environmental results, as well as impacts on the regulated community.

In developing the RIA, EPA assembled data to estimate the potential scope of the RCRA corrective action program. The data used in generating these estimates was primarily obtained from the Agency's existing database on RCRA facilities (the "Hazardous Waste Data Management System," or HWDMS), and an analysis conducted for the RIA which examined a sample set of 65 RCRA Facility Assessment (RFA) reports. These reports are typically prepared by EPA or the States prior to issuance of RCRA permits, and provide preliminary findings as to what releases have or may have occurred, and what investigations should be conducted to verify and/or characterize the releases. These preliminary RFA findings were extrapolated to provide estimates of the numbers and types of facilities that may require corrective action. Certain data from the reports were also used to support modeling for the quantitative analysis of the RIA. A summary of the RIA estimates as to the size and distribution of RCRA facilities that may need corrective action are presented in the following section of this discussion.

4. *Potential Scope of the Corrective Action Program.* EPA estimates that there are approximately 5,700 facilities regulated under RCRA subtitle C that are potentially subject to the corrective action authorities of sections 3004(u) and 3008(h). Based on preliminary survey results from RFA reports, it is estimated that roughly 80,000 solid waste management units exist at these facilities; this number includes some 3,000 land-based hazardous waste management units (*e.g.*, hazardous waste landfills and surface impoundments) that were subject to corrective action prior to the 1984 HSWA amendments. The number of solid waste management units at individual facilities varies widely, up to as many as 1,300. Federal facilities, because of their large size, typically contain many more solid waste management units—an average of 55 per facility, according to the RFA survey results. The survey indicated that there are an average of 12 solid waste management units (including hazardous waste management units) at non-Federal facilities.

The types of solid waste management units found at facilities are diverse. More than one-third (36 percent) are tanks used for storage or treatment of wastes. Landfills comprise 16 percent, and surface impoundments 15 percent. The remainder are units such as container storage areas, piles, land treatment units, incinerators and other miscellaneous units. The survey also found a wide diversity within unit categories in terms of size, age, general condition, types of wastes managed, and other factors.

The survey revealed that, on average, 62 percent of all facilities have indications of possible releases, based on RFA findings, sufficient to require follow-up remedial investigations (*i.e.*, RFIs). Typically, facilities that have subtitle C land disposal units and incinerators are more likely to require follow-up investigations than are treatment/storage facilities (74 percent, 70 percent and 56 percent, respectively). The Agency's experience with the corrective action program to date (as confirmed by the RFAsurvey results) indicates that one-half of these facilities (or one-third of the total universe) will require some type of remedial action, based on the confirmation of a release in the RFI.

Potential releases of concern most often noted in RFA findings are releases

to ground water and soil: of all facilities, 30 percent have actual or suspected releases to ground water, 34 percent to soil. Facilities with confirmed or suspected releases to surface water and air are less common—17 percent and 7 percent respectively, based on the RFAs surveyed.

Based on the results of the models used in the quantitative analysis conducted for the RIA, approximately 31 percent (1,700 RCRA facilities) will have ground-water contamination requiring remediation.

5. *Qualitative Analysis.* EPA considered three strategies for implementing corrective action under the HSWA mandate that permits for all treatment, storage, or disposal facilities (TSDFs) address releases from SWMUs to all environmental media. The following is a summary of each alternative strategy.

Strategy 1—Cleanup to background levels as soon as practicable for all facilities. This strategy represented the most stringent and environmentally conservative option of the three. Regulations modeled after this approach would require complete restoration of all contamination back to the unit boundary, as quickly as could be practicably achieved. In order to ensure that solid waste management units would continue to meet what would amount to a "zero release" standard, extensive source controls would be required, perhaps often involving treatment or destruction of all wastes that could cause future contamination.

This strategy would, if implemented, at least theoretically achieve the highest degree of protection to human health and the environment. Realistically, however, current technologies cannot consistently achieve such a cleanup standard. In addition, the economic impacts of such a regulatory approach would obviously be much greater than the other options, and could be expected to cause substantially more owner/operators to become insolvent, thereby placing additional demands on other funding sources, such as State or Federal cleanup funds.

Strategy 2—Cleanup to health-based levels, with flexibility in timing. In broad terms, this strategy would require cleanup of releases to the unit boundary to concentration levels safe for lifetime human exposure. The timing for achieving these levels would vary depending on a number of site-specific factors, such as the extent and nature of the contamination, exposure potential, availability of technologies, and other factors. Source controls would be required in order to prevent further releases above health-based levels.

This strategy would also achieve a conservative level of protection. The economic impacts of this strategy, although substantial, would be considerably smaller than for Strategy 1.

Strategy 3—Cleanup to health-based standards only where actual or imminent exposure exists. Under Strategy 3, corrective actions would be required only if there was evidence of actual or imminent exposure to contaminated media (*e.g.*, contaminated drinking water wells), above health-based standards. The extent of cleanup would be tied to alleviating that exposure; cleanup to the unit boundary would not be required unless exposure were actually of concern at that point. Required source control measures would be less extensive than under Strategy 1 or 2. Protection against future exposure to contamination would rely heavily on institutional controls.

This regulatory approach would achieve a minimum level of protection, as compared to the other two strategies. By allowing contaminated media to remain contaminated based on current exposure patterns, protection against future exposure could not be guaranteed. Thus, Strategy 3 is the least protective strategy. This strategy would, however, be substantially less costly to owner/operators, relative to Strategies 1 and 2.

Today's proposed rule adopts the Strategy 2 approach. The Agency believes that this regulatory strategy provides an optimum balance in ensuring a high degree of protection of human health and the environment, while not placing unnecessary burdens on facility owner/operators.

It should be understood that crafting a comprehensive rulemaking within the broad confines of any of the three alternatives listed above would, of necessity, require addressing a large number of specific policy questions. Thus, a variety of specific regulatory blueprints could be created under any one alternative. In this regard, as noted below, we have developed two alternatives for the purpose of quantitative analysis that we believe reflect the bounds of flexibility of implementation afforded by this rule. This is reflected in the rule proposed today, which is generally patterned after Strategy 2, but also contains certain regulatory requirements that could be considered in line with Strategies 1 and 3.

6. *Description of Options Analyzed Quantitatively.* In developing the quantitative analysis for the RIA, a similar range of regulatory options were assessed as in the qualitative analysis. For comparison purposes, however, the analysis also examined a "baseline" option—in effect, the pre-HSWA corrective action program. In addition, the Agency developed four regulatory options, two of which were generally believed to reflect the flexibility inherent in the proposed rule. It should also be noted that in structuring the modeling logic for this analysis, it was necessary to make certain assumptions and use decision rules that vary slightly from those used in the qualitative analysis; however, the broad regulatory alternatives examined in the qualitative and quantitative analyses are generally the same.

The quantitative analysis examined each of the five regulatory options in terms of the following criteria: cost, protection of human health and the environment, flexibility in implementation, and technical practicability. This analysis evaluates the effects of each alternative only as it would address contamination of ground water.

Detailed information on the data used in this analysis, and how the models were constructed, are presented in the RIA document. The following is a summary of the options modeled, and the general assumptions used in constructing each.

Option 1: Baseline (Pre-HSWA). This option represents requirements under RCRA prior to enactment of the 1984 HSWA corrective action requirements and is used as the basis for comparison of costs and benefits of other options. Only land disposal units that received hazardous waste after July 26, 1982, and thus were regulated under part 264, subpart F, were examined. The corrective action trigger and target concentrations are the same, either the background concentration or a maximum contaminant level. (For modeling purposes, the baseline scenario assumed that cleanup targets would not be established at "alternate concentration limits" under subpart F.) Only onsite cleanup within the facility boundary is addressed. Ground-water removal and treatment, or capping, are the only corrective action remedies considered.

Option 2: Immediate Cleanup to Background. This option is the strictest of those evaluated. All SWMUs, in addition to regulated subtitle C land disposal units, were addressed. Any detectable release to ground water in excess of background levels would trigger corrective action, and both on-site and off-site contamination must be cleaned up to background levels as soon as practical. For purposes of this analysis, we assumed that background

contamination did not exist and, therefore, assumed that cleanup to background was equivalent to cleanup to detection limits. Source controls are required with a bias toward excavation

Option 3: Immediate Cleanup to Health-Based Standards. This option is similar to the previous one in that all SWMUs are addressed, source control remedies such as excavation are required, and off-site contamination must be addressed as soon as detected. However, corrective action would be triggered only if concentrations were detected above a health-based standard, rather than above background concentrations. This option involves a strong preference towards source control remedies and towards cleanup of contamination as quickly as possible. Use of technical infeasibility waivers is very limited, even if remedies cannot reasonably be expected to achieve the target. In addition, unlike the previous option, cleanup of on-site contamination could be deferred until facility closure, at which point cleanup to health-based levels would be required.

Option 4: Flexible Cleanup to Health-Based Standards. This option also addresses SWMUs, and health-based standards are used as both trigger and target levels. As in the previous option, owners and operators may defer cleanup of on-site releases until facility closure. However, in this alternative owners and operators have considerable flexibility in identifying corrective action remedies. Here, remedies less costly than source control can be chosen if they achieve target within a reasonable time frame. As a decision rule to reflect the fact that the problems of scale and other technical difficulties will preclude certain remedies at complex sites, remedies that failed to achieve cleanup in a reasonable period of time (assumed to be about 130 years for this analysis) or that would be extraordinarily expensive (*i.e.*, over $150 million) were rejected as "impracticable." Instead, exposure controls would be relied on to prevent risk in these cases. It is important to note that this approach is not intended to imply that remedies of this scope would never be undertaken, or to define the limits of technical practicability.

Option 5: Flexible Cleanup Based on Actual Exposure. This option is the least stringent of the five. It is similar to Option 4, except that cleanup of off-site exposure could be deferred if there is no actual human exposure to the release. If there is an off-site exposure, corrective action must address the exposure. Again, under this option, there is a flexible approach towards remedy selection.

The Agency believes that options 3 and 4 provide an upper and lower bound on the range of outcomes that may result during implementation of the proposed rule. This range results from the flexible nature of the proposed rule and the uncertainty about the choice of remediation measures in the field and the performance of the remedies that are selected. EPA expects that the real effects of the rule are likely to lie somewhere between these two options.

7. *Results of Quantitative Analysis.* The analysis estimated that approximately 31 percent of all RCRA facilities will trigger corrective action in all the post-HSWA options analyzed, as compared to 14 percent that would trigger under the baseline pre-HSWA scenario. This reflects the requirement that all SWMUs, not just land disposal units, are subject to corrective action under post-HSWA options. Note that even in the post-HSWA options, approximately two-thirds of the facilities will not trigger corrective action for ground water.

It is important to note that differences in trigger levels did not result in significant differences in the number of facilities triggering corrective actions. However, differences in target levels for the various regulatory options made a significant difference in how many corrective actions were "successful" in achieving cleanup levels, as is discussed later in this section. In examining the potential benefits of the proposal (Options 3 and 4) as compared to other options, the Agency developed an "effectiveness" test which measures the degree to which a particular option is successful in achieving its cleanup level The results of the test demonstrate that Options 3 and 4 are the most successful in achieving the cleanup target. This analysis supports the Agency's selection of Options 3 and 4 for the proposed rule. The effectiveness test should not, however, be viewed as a measure of all the potential benefits of remediation of contaminated ground water.

The point when corrective action is triggered was also analyzed. The analysis demonstrates that, for Option 2, in which corrective action must begin immediately, approximately 26 percent of all existing RCRA facilities would initiate corrective action in the first year of the program. In Options 3, 4, and 5, in which on-site corrective action can be deferred, only about 12 percent of all facilities would initiate corrective action in the first year. The ability of a facility to defer on-site corrective actions results in lower economic impacts.

For those facilities that trigger corrective action, the analysis estimated the length of time required for a corrective action to reduce contaminant concentrations below the target levels at all wells within 1,500 meters of the release. Under options requiring cleanup to health-based levels (*i.e.*, options 3, 4, and 5), about 51 to 56 percent of the facilities reach cleanup targets at all well distances within 75 years of the initiation of corrective action. In contrast, under the two options requiring cleanup to background, only about 34 percent of facilities triggering corrective action are projected to achieve targets within 75 years. This further confirms the presumption that achieving cleanup to background concentrations may be difficult or impossible to achieve technically.

As part of the quantitative analysis, the Agency developed estimates of the costs of corrective action under different regulatory options on a per-facility basis, as well as on a national basis. Typical facility corrective action costs vary significantly depending upon the specific regulatory option. The cost analysis demonstrates that the most stringent post-HSWA regulatory option, (*i.e.*, Option 2, or "Immediate Cleanup to Background") is by far the most costly option, with a mean present value cost of over $281 million per facility, and an annualized per facility cost of about $19 million (at a 3 percent discount rate).

The upper bound proposed rule option, "Immediate Cleanup to Health-Based Standards" option (*i.e.*, Option 3), was estimated to have a mean present value per facility cost of $28.9 million, and annualized per facility costs of $1.8 million. The lower bound regulatory option (*i.e.*, Option 4, or "Flexible Cleanup to Health-Based Standards") was estimated to have a mean present value cost per facility of $6.3 million, and annualized per facility costs of $0.4 million.

The baseline per-facility cost is the lowest of all the options at a mean present value cost of $3.8 million, and an annualized per-facility cost of $0.3 million. The "Flexible Cleanup Based on Actual Exposure" option (*i.e.*, Option 5) was estimated to have a mean present value cost of $4.8 million and annualized per facility costs of $0.3 million.

The total national cost for EPA's corrective action program is influenced by three parameters: The average cost of each action, the number of facilities required to undertake corrective action, and the cost to facility owners and operators of undertaking required investigations. National costs discussed below are presented in incremental

terms (*i.e.*, after subtracting the costs of the baseline scenario).

The "Immediate Cleanup to Background" option is the most expensive, with an incremental total cost above the baseline pre-HSWA scenario of $490 billion. This option was estimated to have an annualized cost of $32.9 billion.

Among the other regulatory options, the differences in costs are primarily a result of differences in timing of cleanup and in the flexibility afforded in terms of choosing corrective action remedies. Option 3 (*i. e.*, "Immediate Cleanup to Health-Based Standards") was estimated at a total cost of $41.8 billion, with an annualized cost of $2.8 billion. This option is relatively costly, due in part to modeling assumptions as to the types of remedial technologies that would be employed to meet these standards.

Option 4 (*i.e.*, "Flexible Cleanup to Health-Based Standards") was among the least costly, with a total cost of $7.4 billion, and an annualized cost of $0.5 billion. The costs are lower because, in general, less expensive technologies are assumed and, for many facilities, final cleanup of contaminated ground water would be deferred for a number of years, thus reducing the present value costs.

Option 5 (*i.e.*, "Flexible Cleanup Based on Actual Exposure"), where both on-site and off-site cleanup of contamination could be deferred until closure if there was no actual exposure, was somewhat less expensive than the above option. This option had a total cost of $5.0 billion, an annualized cost of $0.3 billion.

Today's proposed regulation is most similar to Option 3 (*i.e.*, "Immediate Cleanup to Health-Based Levels") and Option 4 (*i.e.*, "Flexible Cleanup to Health-Based Standards"). These results illustrate that the total national costs of this rule are likely to range between $7 and $42 billion. The relatively wide range reflects the uncertainty in a number of areas, such as the timing of corrective action, the types of remedial measures that will be considered, and the nature and difficulty of remedial measures that are selected. Overall, the Agency believes that this range represents a reasonable bound of the potential effects of the rule, and that in all likelihood, the actual effects will fall somewhere within this range.

The Agency is committed to trying to refine these costs estimates before promulgation of the final rule. To help in this effort, the Agency requests that commenters provide any data or information relevant to the analysis described in the preamble or in the accompanying Regulatory Impact Analysis.

8. *Economic Impacts.* With the cost information developed from the quantitative analysis, the RIA estimated the financial impacts of the proposed rule on affected firms. The results are expressed in terms of predictions of total costs that facility owners and operators would not be able to cover due to insolvency. The results provide an indication of the magnitude of costs that could ultimately be faced by entities other than the immediate owner or operator of the facility. Alternate funding sources might include the Superfund (provided that the facility would be eligible for Superfund funding), State remedial action funds, corporate parents of facility owners and operators, or, through price increases, the customers of the firm owning or operating the facility. The results of this analysis are presented in "undiscounted" numbers, since Superfund monies are generally described in undiscounted terms. For scenarios other than baseline, costs are presented on an incremental basis relative to the baseline.

Under the baseline scenario, it was estimated that 9 percent of all firms owning RCRA facilities would be adversely affected, creating total unfunded costs of $97 million (undiscounted) over the next 50 years.

The "Immediate Cleanup to Background" scenario generated by far the highest level of unfunded costs, totaling $74 billion over the next 50 years. The "Immediate Cleanup to Health-Based Standards" option results in unfunded costs of over $5.1 billion over the next 50 years. The "Flexible Cleanup to Health-Based Standards" option results in unfunded costs of over $0.5 billion over the next 50 years. The "Flexible Cleanup Based on Actual Exposure" option resulted in a total of $0.2 billion unfunded costs, undiscounted, over the next 50 years.

Based on the RIA analysis, EPA anticipates that the ability to fund corrective action costs will vary between industries. Industries that may have a relatively low ability to pay for corrective actions include sanitary services; coating, engraving, and allied services; and miscellaneous wood products. These industries have relatively low net income levels. Industries that show a particularly high ability to pay include petroleum refining, motor vehicles and motor vehicle equipment, and aircraft and aircraft parts.

9. *Federal Facilities.* The RIA discusses Federal facilities as a separate entity because, although they only constitute 6 percent of the total RCRA facility universe, they contain many more SWMUs per facility (on average, 55 per site) and therefore, may incur higher corrective action costs. These costs must be funded by public money.

Based on the RIA analysis, it is estimated that of the 352 Federal RCRA facilities, between 61 percent and 100 percent are likely to require ground-water corrective action under the proposed rule, compared to between 17 percent and 23 percent under the baseline A rough approximation of the costs for these corrective actions, per facility, ranges from $17 million for the baseline scenario to $1.3 billion for the "Immediate Cleanup to Background" option. For the options most similar to the proposed rule (*i.e.*, "Immediate Cleanup to Health-Based Standards" and "Flexible Cleanup to Health-Based Standards") the mean per facility cost is estimated to range from $123 to $29 million, or in annualized costs, from about $8 to $2 million per facility.

The total Federal facility costs, incremental to the baseline, for the options most similar to the proposal range from $3 to $18 billion; the annualized costs range from $0.2 to $1.1 billion. Again, this range reflects the likely bounds on the ways in which the RCRA corrective action program will ultimately be implemented for Federal facilities. Incremental Federal facility costs for other regulatory approaches could be $208 billion for the "Immediate Cleanup to Background" option, or $2 billion for the "Flexible Cleanup Based on Actual Exposure" option. Baseline costs are estimated to be $1 billion.

This analysis thus concludes that, although Federal facilities only comprise 6 percent of the population affected by the corrective action program, they could incur roughly 30 percent of the total cost of the rule.

10. *Further Regulatory Impact Analyses.* Given the scope and potential impacts of this rulemaking, EPA recognizes the need to continue to refine its estimates of the costs and benefits of the rule. The Agency intends to collect additional data and will conduct substantial new analyses prior to finalizing today's rule. In conducting these studies, the Agency believes that it will be of particular value to examine the experience gained in recent years in remediating Federal facilities. Large volumes of information and extensive technical experience have been accumulated specifically by the Department of Defense and the Department of Energy. EPA intends to form an interagency working group to

develop and conduct these further Regulatory Impact Analyses.

The new analyses will be conducted in accordance with the existing Agency guidance on Regulatory Impact Analysis and the draft Regulatory Impact Analysis Guidance published in the 1988 Regulatory Program of the United States. The analyses will explicitly examine the costs, health and environmental benefits, and technological limitations for the key regulatory requirements contained in the proposal—especially for the several alternative approaches to ground water remediation outlined in the proposed rule. This analysis will also estimate the aggregate impacts, identified above, for sites eligible for remediation under this rule and for those sites which are listed on the NPL, and will, therefore, look to this rule as an ARAR under the provisions of CERCLA. Upon completion of the revised analyses, EPA will solicit comment on the results of the analyses and the methodology used to derive them. The Agency will then assess these comments, along with comments which will have been received previously on the proposed rule. Through these actions EPA will ensure that the net social benefits (including environmental and health benefits) of the rule proposed today are maximized, taking into account costs, technological limitations, risks, and realistic assessments of both actual and reasonably expected uses of each site. If the revised RIA, together with the comments received, demonstrate that the rule proposed today does not achieve this outcome, the Agency will make appropriate modifications to the final rule, or if necessary, will repropose the rule.

B. Regulatory Flexibility Act

The Regulatory Flexibility Act requires Federal agencies to fully analyze the economic effects of regulations on small entities. The Agency analyzed the economic impacts for the regulatory options that are most similar to today's proposed rule (*i.e.*, "Immediate Cleanup to Health-Based Standards" and "Flexible Cleanup to Health-Based Standards").

The RIA assumes that a small business is significantly impacted if its excess of cash flow over ten percent of its total liabilities is insufficient to meet corrective action costs, or if its net income is insufficient to meet its corrective action costs.

For the alternative analyzed, it was found that small firms encounter more severe impacts from the corrective action requirements than large firms. The options most similar to the proposed rule result in incremental impacts (*i.e.*, relative to the baseline) on approximately 9 to 11 percent of small businesses owning RCRA facilities.

Based on the Agency's guidelines for implementing the Regulatory Feasibility Act, the results of the analysis as summarized above, suggest that the proposed rule does not impose significant impacts on small entities.

C. Paperwork Reduction Act

The information collection requirements in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* Reporting and recordkeeping burden on the public for this collection is estimated at 42,497 hours for the 674 respondents, with an average of 1.151 hours per response. (Burden estimates should include all aspects of the collection effort and may include time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, completing and reviewing the collection of information, *etc.*)

If you wish to submit comments regarding any aspect of the collection of information, including suggestions for reducing the burden, or if you would like a copy of the information collection request (please reference ICR #1451), contact Rick Westlund, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460 (202-382-2745); and Tim Hunt, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503. The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

List of Subjects in 40 CFR Parts 264, 265, 270, and 271

Administrative practice and procedure, Corrective action, Hazardous waste; Insurance, Reporting and recordkeeping requirements.

Dated: July 5, 1990.

William Reilly,

Administrator.

XI. Supplementary Documents

APPENDIX A.—EXAMPLES OF CONCENTRATIONS MEETING CRITERIA FOR ACTION LEVELS

[Section 264.521(a)(2)(i-iv)]

Constituent name	Class	Air(ug/m^3)	Water (mg/L)	Soils (mg/kg)
Acetone	D		4E−00	8E+03
Acetonitrile	D		2E−01	5E+02
Acetophenone	D	2E−01	4E−00	8E+03
Acrylamide	B2	8E−04	8E−06	2E−01
Acrylonitrile	B1	1E−02	6E−06	1E−00
Aldicarb	D		5E−02	1E+02
Aldrin	B2	2E−04	2E−06	4E−02
Allyl alcohol	D		2E−01	4E+02
Aluminum phosphide	D		1E−02	3E+01
Aniline	B2		6E−03	1E+02
Antimony	D		1E−02	3E+01
Arsenic	A	7E−05	(1)	8E+01
Asbestos (2)	A	2E−02		
Barium cyanide	D		2E−00	6E+03
Barium, ionic	D	4E−01	(1)	4E+03
Benzidine	A	2E−05	2E−07	3E−03
Beryllium	B2	4E−04	8E−06	2E−01
Bis(2-ethylhexyl)phthalate	B2		3E−03	5E+01
Bis(chloroethyl)ether	B2	3E−03	3E−05	6E-01
Bromodichloromethane (3)	B2		3E−05	5E−01
Bromoform (3)	D		7E−01	2E+03
Bromomethane	D	3E+01	5E−02	1E+02
Butyl benzyl phthalate	C		7E−00	2E+04

APPENDIX A.—EXAMPLES OF CONCENTRATIONS MEETING CRITERIA FOR ACTION LEVELS—Continued

[Section 264.521(a)(2)(i-iv)]

Constituent name	Class	Air(ug/m^-3)	Water (mg/L)	Soils (mg/kg)
Cadmium	B1	6E−04	(1)	4E+01
Calcium cyanide	D		1E−00	3E+03
Carbon disulfide	D		4E−00	8E+03
Carbon tetrachloride	B2	3E−02	3E−04	5E−00
Chloral	D		7E−02	2E+02
Chlordane	B2	3E−03	3E−06	5E−01
Chlorine cyanide	D		2E−00	4E+03
Chlorobenzene	D	2E+01	7E−01	2E+03
Chloroform (3)	B2	4E−02	6E−03	1E+02
2-Chlorophenol	D		2E−01	4E+02
Chromium (VI)	A	9E−05	(1)	4E+02
Copper cyanide	D		2E−01	4E+02
m-Cresol	D		2E−00	4E+03
o-Cresol	D		2E−00	4E+03
p-Cresol	D		2E−00	4E+03
Cyanide	D		7E−01	2E+03
Cyanogen	D		1E−00	3E+03
Cyanogen bromide	D		3E−00	7E+03
DDD	B2		1E−04	3E−00
DDE	B2		1E−04	2E−00
DDT	B2	1E−02	1E−04	2E−00
Dibutyl phthalate	D		4E−00	8E+03
Dibutylnitrosamine	B2	6E−04	6E−06	1E−01
3,3'-Dichlorobenzidine	B2		8E−06	2E−00
Dichlorodifluoromethane	D	2E+02	7E−00	2E+04
1,2-Dichloroethane	B2	4E−02	(1)	9E−00
1,1-Dichloroethylene	C	3E−02	(1)	1E+01
2,4-Dichlorophenol	D		1E−01	2E+02
2,4-Dichlorophenoxyacetic acid	D		4E−01	8E+02
1,3-Dichloropropene	B2		1E−02	2E+01
Dieldrin	B2	2E−04	2E−06	4E−02
Diethyl phthalate	D		3E+01	6E+04
Diethylnitrosamine	B2	2E−05	2E−07	5E−00
Dimethoate	D		7E−01	2E+03
Dimethylnitrosamine	B2	7E−05	7E−07	1E−02
m-Dinitrobenzene	D		4E−03	8E−00
2,4-Dinitrophenol	D		7E−02	2E+02
2,3-Dinitrotoluene (and 2,6-, mixture)	B2		5E−06	1E-00
1,4-Dioxane	B2		3E−03	6E+01
Diphenylamine	D		9E−01	2E+03
1,2-Diphenylhydrazine	B2	4E−03	4E−05	9E−01
Disulfoton	D		1E−03	3E−00
Endosulfan	D		2E−03	4E−00
Endothall	D		7E−01	2E+03
Endrin	D		(1)	2E+01
Epichlorohydrin	B2	8E−01	4E−03	7E+01
Ethylbenzene	D		4E-00	8E+03
Ethylene dibromide	B2	5E−03	4E−07	8E−03
Formaldehyde	B1	8E−02		
Formic acid	D		7E+01	2E+05
Glycidylaldehyde	D		1E−02	3E+01
Heptachlor	B2	8E−04	8E−06	2E−01
Heptachlor epoxide	B2	4E−04	4E−06	8E−02
Hexachlorodibenzo-p-dioxin	B2	6E−07	1E−08	1E−04
Hexachlorobutadiene	C	4E−01	4E−03	8E+01
alpha-Hexachlorocyclohexane	B2	6E−04	6E−06	1E−01
beta-Hexachlorocyclohexane	C	2E−02	2E−04	4E−00
Hexachlorocyclopentadiene	D	7E−02	2E−01	6E+02
Hexachloroethane	C	3E−00	3E−02	8E+01
Hexachlorophene	D		1E−02	2E+01
Hydrazine	B2	2E−04	1E−05	2E−01
Hydrogen cyanide	D		7E−01	2E+03
Hydrogen sulfide	D		1E−01	2E+02
Isobutyl alcohol	D		1E+01	2E+04
Isophorone	C		9E−02	2E+03
Lead	B2		(1)	
Lindane (gamma-hexachlorocyclohexane)	B2/C		(1)	5E−01
m-Phenylenediamine	D		2E−01	5E+02
Maleic anhydride	D		4E−00	8E+03
Maleic hydrazide	D		2E+01	4E+04
Mercury (inorganic)	D		(1)	2E+01
Methacrylonitrile	D	7E−01	4E−03	8E-00
Methomyl	D		9E−01	2E+03
Methyl chlorocarbonate	D			
Methyl ethyl ketone	D	3E+02	8E−00	4E+03
Methyl isobutyl ketone	D	7E+01	2E−00	4E+03
Methyl parathion	D		9E−03	2E+01

APPENDIX A.—EXAMPLES OF CONCENTRATIONS MEETING CRITERIA FOR ACTION LEVELS—Continued

[Section 264.521(a)(2)(i-iv)]

Constituent name	Class	Air(ug/m^3)	Water (mg/L)	Soils (mg/kg)
Methylene chloride	B	3E−01	5E−03	9E+01
n-Nitroso-di-n-butylamine	B2	6E−04	6E−06	1E−01
n-Nitroso-n-ethylurea	B			
n-Nitroso-n-methylethylamine	B2		2E−06	3E−02
n-Nitrosodi-n-propylamine	B2		5E−06	1E−01
n-Nitrosodiethanolamine	B2		1E−05	3E−01
n-Nitrosodiphenylamine	B2		7E−03	1E+02
n-Nitrosopyrrolidine	B2	2E−03	2E−05	3E−01
Nickel	D		7E−01	2E+03
Nickel refinery dust	A	4E−03		
Nitric oxide	D		4E−00	8E+03
Nitrobenzene	D	2E−00	2E−02	4E+01
Nitrogen dioxide	D		4E+01	8E+04
Osmium tetroxide	D		4E−04	8E−01
Parathion	C		2E−01	5E+02
Pentachlorobenzene	D		3E−02	6E+01
Pentachloronitrobenzene	C	1E−01	1E−01	2E+02
Pentachlorophenol	D		1E−00	2E+03
Phenol	D		2E+01	5E+04
Phenyl mercuric acetate	D		3E−03	6E−00
Phosphine	D		1E−02	2E+01
Phthalic anhydride	D		7E+01	2E+05
Polychlorinated biphenyls	B2		5E−08	9E−02
Potassium cyanide	D		2E−00	4E+03
Potassium silver cyanide	D		7E−00	2E+04
Propanide	D		3E−00	6E+03
Pyridine	D		4E−02	8E+01
Selenious acid	D		1E−01	2E+02
Selenourea	D		2E−01	4E+02
Silver	D		(1)	2E+02
Silver cyanide	D		4E−00	8E+03
Sodium cyanide	D		1E−00	3E+03
Strychnine	D		1E−02	2E+01
Styrene	C		7E−00	2E+04
1,1,1,2-Tetrachloroethane	C	1E−00	1E−02	3E+02
1,2,4,5-Tetrachlorobenzene	D		1E−02	2E+01
1,1,1,2-Tetrachloroethane	C	1E−00	1E−02	3E+02
1,1,2,2-Tetrachloroethane	C	2E−01	2E−03	4E+01
Tetrachloroethylene	B2	1E−00	7E−04	1E+01
2,3,4,6-Tetrachlorophenol	D		1E−00	2E+03
Tetraethyl lead	D		4E−08	8E−03
Tetraethyldithiopyrophosphate	D		2E−02	4E+01
Thallic oxide	D		2E−03	6E−00
Thallium acetate	D		3E−03	7E−00
Thallium carbonate	D		3E−03	6E−00
Thallium chloride	D		3E−03	6E−00
Thallium nitrate	D		3E−03	7E−00
Thallium sulfate	D		3E−03	6E−00
Thiosemicarbazide	D		2E−01	5E+02
Thiram	D		2E−01	4E+02
Toluene	D	7E+03	1E+01	2E+04
Toxaphene	B2	3E−03	(1)	6E−01
1,2,4-Trichlorobenzene	D	1E+01	7E−01	2E+03
1,1,1-Trichloroethane	D	1E+03	3E−00	7E+03
1,1,2-Trichloroethane	C	6E−01	6E−03	1E+02
Trichloroethylene	B2		(1)	6E+01
Trichloromonofluoromethane	D	7E+02	1E+01	2E+04
2,4,5-Trichlorophenol	D		4E−00	8E+03
2,4,6-Trichlorophenol	B2	2E−01	2E−03	4E+01
2,4,5-Trichlorophenoxyacetic acid	D		(1)	8E+02
1,2,3-Trichloropropane	D		2E−01	5E+02
Vanadium pentoxide	D		3E−01	7E+02
Xylenes	D	1E+03	7E+01	2E+05
Zinc cyanide	D		2E−00	4E+03
Zinc phosphide	D		1E−02	2E+01

(1) MCL available; see appendix B.

(2) The air action level for asbestos is measured in units of fibers/milliliters.

(3) There is an MCL for total trihalomethanes, which includes four constituents: bromoform, bromodichloromethane, chloroform, and dibromochloromethane. Concentration derived using exposure assumptions in appendix D and reference doses for systemic toxicants and verified risk-specific doses at 10−6 for Class A and B carcinogens and 10−5 for Class C carcinogens (see section VI.F.2.6 for further discussion).

A, B and C represents class A, B and C carcinogens, respectively; D represents a systemic toxicant.

Appendix B—Maximum Contaminant Levels

Constituent	MCL (ppm)
Arsenic	0.05
Barium	1
Benzene	0.005
Cadmium	0.010
Carbon tetrachloride	0.005
Chromium VI	0.05
p-Dichlorobenzene	0.075
1,2-Dichloroethane	0.005
1,1-Dichloroethylene	0.007

Appendix B—Maximum Contaminant Levels—Continued

Constituent	MCL (ppm)
2,4-D	0.1
2,4,5-TP Silvex	0.01
Endrin	0.0002
Fluoride	4.0
Lead	0.05
Lindane	0.004
Mercury	0.002
Methoxychlor	0.1
Nitrate	10

Appendix B—Maximum Contaminant Levels—Continued

Constituent	MCL (ppm)
Selenium	0.01
Silver	0.05
Toxaphene	0.005
1,1,1-Trichloroethane	0.2
Trichloroethylene	0.005
Trihalomethanes, total [1]	0.10
Vinyl chloride	0.002

[1] Including chloroform, bromoform, bromodichloromethane, and dibromochloromethane

Appendix C—Range of Concentrations for Establishing Media Protection Standards for Carcinogens

Constituent name	Class	MaxAir (ug/m 3)	MinAir (ug/m 3)	Max-Water (mg/L)	MinWater (mg/L)	MaxSoil (mg/kg)	MinSoil (mg/kg)
Acetone	D						
Acetonitrile	D						
Acetophenone	D						
Acrylamide	B2	8E-02	8E-04	8E-04	8E-06	2E+01	2E-01
Acrylonitrile	B1	1E-00	1E-02	6E-03	6E-05	1E+02	1E-00
Aldicarb	D						
Aldrin	B2	2E-02	2E-04	2E-04	2E-06	4E-00	4E-02
Allyl alcohol	D						
Aluminum phosphide	D						
Aniline	B2			6E-01	6E-03	1E+04	1E+02
Antimony	D						
Arsenic	A	7E-03	7E-05				
Asbestos (2)	A	2E-00	2E-02				
Barium cyanide	D						
Barium, ionic	D						
Benzidine	A	2E-03	2E-05	2E-05	2E-07	3E-01	3E-03
Beryllium	B2	4E-02	4E-04	8E-04	8E-06	2E+01	2E-01
Bis(2-ethylhexyl)phthalate	B2			3E-01	3E-03	5E+03	5E+01
Bis(chloroethyl)ether	B2	3E-01	3E-03	3E-03	3E-05	6E+01	6E-01
Bromodichloromethane	B2			3E-03	3E-05	5E+01	5E-01
Bromoform	D						
Bromomethane	D						
Butyl benzyl phthalate	C						
Cadmium	B1	6E-02	6E-04				
Calcium cyanide	D						
Carbon disulfide	D						
Carbon tetrachloride	B2	3E-00	3E-02	3E-02	3E-04	5E+02	5E-00
Chloral	D						
Chlordane	B2	3E-01	3E-03	3E-03	3E-05	5E+01	5E-01
Chlorine cyanide	D						
Chlorobenzene	D						
Chloroform	B2	4E-00	4E-02	6E-01	6E-03	1E+04	1E+02
2-Chlorophenol	D						
Chromium (VI)	A	9E-03	9E-05				
Copper cyanide	D						
m-Cresol	D						
o-Cresol	D						
p-Cresol	D						
Cyanide	D						
Cyanogen	D						
Cyanogen bromide	D						
DDD	B2			1E-02	1E-04	3E+02	3E-00
DDE	B2			1E-02	1E-04	2E+02	2E-00
DDT	B2	1E-00	1E-02	1E-02	1E-04	2E+02	2E-00
Dibutyl phthalate	D						
Dibutylnitrosamine	B2	6E-02	6E-04	6E-04	6E-06	1E+01	1E-01
3,3'-Dichlorobenzidine	B2			8E-03	8E-05	2E+02	2E-00
Dichlorodifluoromethane	D						
1,2-Dichloroethane	B2	4E-00	4E-02	4E-02	4E-04	8E+02	8E-00
1,1-Dichloroethylene	C	3E-01	3E-03	6E-03	6E-05	1E+02	1E-00
2,4-Dichlorophenol	D						
2,4-Dichlorophenoxyacetic acid	D						
1,3-Dichloropropene	B2						
Dieldrin	B2	2E-02	2E-04	2E-04	2E-06	4E-00	4E-02
Diethyl phthalate	D						

APPENDIX C—RANGE OF CONCENTRATIONS FOR ESTABLISHING MEDIA PROTECTION STANDARDS FOR CARCINOGENS—Continued

Constituent name	Class	MaxAir (ug/m 3)	MinAir (ug/m 3)	Max-Water (mg/L)	MinWater (mg/L)	MaxSoil (mg/kg)	MinSoil (mg/kg)
Diethylnitrosamine	B2	2E-03	2E-05	2E-05	2E-07	5E-01	5E-03
Diethylstilbestrol	D						
Dimethylnitrosamine	B2	7E-03	7E-05	7E-05	7E-07	1E-00	1E-02
m-Dinitrobenzene	D						
2,4-Dinitrophenol	D						
2,3-Dinitrotoluene (and 2,6-, mixture)	B2			5E-03	5E-05	1E+02	1E-00
1,4-Dioxane	B2			3E-01	3E-03	6E+03	6E+01
Diphenylamine	D						
1,2-Diphenylhydrazine	B2	4E-01	4E-03	4E-03	4E-05	9E+01	9E-01
Disulfoton	D						
Endosulfan	D						
Endothall	D						
Endrin	D						
Epichlorohydrin	B2	8E+01	8E-01	4E-01	4E-03	7E+03	7E+01
Ethylbenzene	D						
Ethylene dibromide	B2	5E-01	5E-03	4E-05	4E-07	8E-01	8E-03
Formaldehyde	B1	8E-00	8E-02				
Formic acid	D						
Glycidylaldehyde	D						
Heptachlor	B2	8E-02	8E-04	8E-04	8E-06	2E+01	2E-01
Heptachlor epoxide	B2	4E-02	4E-04	4E-04	4E-06	8E-00	8E-02
Hexachlorodibenzo-p-dioxin	B2	6E-05	6E-07	6E-07	1E-08	1E-02	1E-04
Hexachlorobutadiene	C	4E-00	4E-02	4E-02	4E-04	9E+02	9E-00
alpha-Hexachlorocyclohexane	B2	6E-02	6E-04	6E-04	6E+06	1E-01	1E-01
beta-Hexachlorocyclohexane	C	2E-01	2E-03	2E-03	2E-05	4E+01	4E-01
Hexachlorocyclopentadiene	D						
Hexachloroethane	C	3E+01	3E-01	3E-01	3E-03	5E+03	5E+01
Hexachlorophene	D						
Hydrazine	B2	2E-02	2E-04	1E-03	1E-05	2E+01	2E-01
Hydrogen cyanide	D						
Hydrogen sulfide	D						
Isobutyl alcohol	D						
Isophorone	C			9E-01	9E-03	2E+04	2E+02
Lead	B2						
Lindane (gamma-hexachlorocyclohexane)	B2/C			3E-03	3E-05	5E+01	5E-01
m-Phenylenediamine	D						
Maleic anhydride	D						
Maleic hydrazide	D						
Mercury (inorganic)	D						
Methacrylonitrile	D						
Methomyl	D						
Methyl chlorocarbonate	D						
Methyl ethyl ketone	D						
Methyl isobutyl ketone	D						
Methyl parathion	D						
Methylene chloride	B	3E+01	3E-01	5E-01	5E-03	9E+03	9E+01
n-Nitroso-di-n-butylamine	B2	6E-02	6E-04	6E-04	6E+06	1E-01	1E-01
n-Nitroso-n-ethylurea	B						
n-Nitroso-n-methylethylamine	B2			2E-04	2E-06	3E-00	3E-02
n-Nitrosodi-n-propylamine	B2			5E-04	5E-06	1E+01	1E-01
n-Nitrosodiethanolamine	B2			1E-03	1E-05	3E+01	3E-01
n-Nitrosodiphenylamine	B2			7E-01	7E-03	1E+04	1E+02
n-Nitrosopyrrolidine	B2	2E-01	2E-03	2E-03	2E-05	3E+01	3E-01
Nickel	D						
Nickel refinery dust	A	4E-01	4E-03				
Nitric oxide	D						
Nitrobenzene	D						
Nitrogen dioxide	D						
Osmium tetroxide	D						
Parathion	C						
Pentachlorobenzene	D						
Pentachloronitrobenzene	C	1E-00	1E-02				
Pentachlorophenol	D						
Phenol	D						
Phenyl mercuric acetate	D						
Phosphine	D						
Phthalic anhydride	D						
Polychlorinated biphenyls	B2			5E-04	5E-06	9E-00	9E-02
Potassium cyanide	D						
Potassium silver cyanide	D						
Pronamide	D						
Pyridine	D						
Selenious acid	D						
Selenourea	D						
Silver	D						
Silver cyanide	D						
Sodium cyanide	D						
Strychnine	D						

APPENDIX C—RANGE OF CONCENTRATIONS FOR ESTABLISHING MEDIA PROTECTION STANDARDS FOR CARCINOGENS—Continued

Constituent name	Class	MaxAir (ug/m 3)	MinAir (ug/m 3)	Max-Water (mg/L)	MinWater (mg/L)	MaxSoil (mg/kg)	MinSoil (mg/kg)
Styrene	C						
1,1,1,2-Tetrachloroethane	C	1E+01	1E-01	1E-01	3E+03	3E+03	3E+01
1,2,4,5-Tetrachlorobenzene	D						
1,1,1,2-Tetrachloroethane	C	1E+01	1E-01	1E-01	1E-03	3E+03	3E+01
1,1,2,2-Tetrachloroethane	C	2E-00	2E-02	2E-02	2E-04	4E+02	4E-00
Tetrachloroethylene	B2	1E+02	1E-00	7E-02	7E-04	1E+03	1E+01
2,3,4,6-Tetrachlorophenol	D						
Tetraethyl lead	D						
Tetraethyldithiopyrophosphate	D						
Thallic oxide	D						
Thallium acetate	D						
Thallium carbonate	D						
Thallium chloride	D						
Thallium nitrate	D						
Thallium sulfate	D						
Thiosemicarbazide	D						
Thiram	D						
Toluene	D						
Toxaphene	B2	3E-01	3E-03	3E-03	3E-05	6E+01	6E-01
1,2,4-Trichlorobenzene	D						
1,1,1,Trichloroethane	D						
1,1,2-Trichloroethane	C	6E-00	6E-02	6E-02	6E-04	1E+03	1E+01
Trichloroethylene	B2			3E-01	3E-03	6E+03	6E+01
Trichloromonofluoromethane	D						
2,4,5-Trichlorophenol	D						
2,4,6-Trichlorophenol	B2	2E+01	2E-01	2E-01	2E-03	4E+03	4E+01
2,4,5-Trichlorophenoxyacetic acid	D						
1,2,3-Trichloropropane	D						
Vanadium pentoxide	D						
Xylenes	D						
Zinc cyanide	D						
Zinc phosphide	D						

Appendix D: Recommended Exposure Assumptions for Use in Deriving Action Levels

(Sections 264.521 (a)(2); (b); (c)(3); and (d))

1. In deriving action levels for hazardous constituents in ground-water, assume a water intake of 2 liters/day for 70 kg adult/70 year lifetime exposure period.

2. In deriving action levels for hazardous constituents in air, assume air intake of 20 cubic meters/day for 70 kg adult/70 year lifetime exposure period.

3. In deriving action levels for hazardous constituents in soil, which are known or suspected to be carcinogens, assume soil intake of 0.1 gram/day for 70 kg adult/70 year lifetime exposure period.

4. In deriving action levels for hazardous constituents in soil, other than those which are known or suspected to be carcinogens, assume soil intake of 0.2 gram/day for 16 kg child/5 year exposure period (age 1–6).*

5. In deriving action levels for hazardous constituents in surface water designated by the State for use as a drinking water source, assume a water intake of 2 liters/day for 70 kg adult/70 year lifetime exposure period, unless intake of aquatic organisms is also of concern.

*Not to be averaged over a 70-year lifetime.

Appendix E: Examples of Calculations of Action Levels

I. Governing Equations for Calculating Action Levels

A. *Systemic Toxicants*

$C_m = [RfD \cdot W]/[I \cdot A]$

where:

C_m = action level in medium (units are medium-dependent);
RfD = reference dose (mg/kg/day);
W = body weight (kg);
I = intake assumption (units are medium-dependent); and
A = absorption factor [1] (dimensionless).

B. *Carcinogenic Constituents*

$C_m = [R \cdot W \cdot LT]/[CSF \cdot I \cdot A \cdot ED]$

where:

C_m = action level in medium (units are medium-dependent);
R = assumed risk level (dimensionless) (10^{-6} for class A & B; 10^{-5} for class C carcinogens);
W = body weight (kg);
LT = assumed lifetime (years);
CSF = carcinogenic slope factor $(mg/kg/day)^{-1}$;
I = intake assumption (units are medium-dependent);
A = absorption factor (dimensionless); and
ED = exposure duration (years).

[1] Assumed to be 1 for this appendix, based upon the assumption that the human absorption rate will be the same as the rate in the study upon which the RfD or CPF was developed.

II. Example Calculations for Hazardous Constituents in Air

A. *Systemic Toxicants*

Example calculation for 2,4-dinitrophenol:

$C_a = [0.002\ (mg/kg/d) \cdot 1000\ (\mu g/mg) \cdot 70(kg)]/[20\ (m^3/d) \cdot 1] = 7.0\ \mu g/m^3$

where:

C_a = action level in air ($\mu g/m^3$)
RfD = 0.002 mg/kg/day
W = 70 kg adult
I = 20 m^3/day
A = 1

B. *Carcinogenic Constituents*

Example calculation for 1,1,2,2-tetrachloroethane:

$C_a = [10^{-6} \cdot 1000\ (\mu g/mg) \cdot 70\ (yrs) \cdot 70\ (kg)]/[0.20\ (mg/kg/day)^{-1} \cdot 20\ (m^3/day) \cdot 1 \cdot 70\ (yrs)] = .175\ \mu g/m$

where:

C_a = action level in air ($\mu g/m^3$)
R = 10^{-6} (1,1,2,2-Tetrachloroethane is a Class C carcinogen)
W = 70 kg adult
LT = 70 year lifetime
CSF = 0.20 $(mg/kg/day)^{-1}$
I = 20 m^3/day
A = 1
ED = 70 year exposure duration

III. Sample Calculation for Hazardous Constituents in Water

A. *Systemic Toxicants*

Sample calculation for toluene:

$C_w = [0.30\ (mg/kg/day) \cdot 70\ (kg)]/[2\ (L/day) \cdot 1] = 10.5\ mg/L$

where:

C_w = action level in water (mg/L)

RfD = 0.30 mg/kg/day for toluene
W = 70 kg adult
I = 2 L/day
A = 1

B. *Carcinogenic Constituents*

Sample calculation for 1,1,2,2,-tetrachloroethane:

$C_w = [10^{-6} * 70\ (kg) * 70\ (yr)]/[0.20\ (mg/kg/day)^{-1} * 2\ (L/day) * 1 * 70\ (yr)] = 1.75E-03$ mg/L

where:
C_w = action level in water (mg/L)
$R = 10^{-6}$ (1,1,2,2-Tetrachloroethane is a Class C carcinogen)
W = 70 kg adult
LT = 70 year lifetime
CSF = 0.20 $(mg/kg/day)^{-1}$
I = 2 L/day
A = 1
ED = 70 year exposure duration

IV. Sample Calculations for Hazardous Constituents in Soils

A. *Systemic Toxicants*

Example calculations for toluene:

$C_s = [0.30\ (mg/kg/day) * 16\ (kg)]/[0.2\ (g/day) * 1 * 0.001\ (kg/g)] = 24.000$ mg/kg

where:
C_s = action level in soil (mg/kg)
RfD = 0.30 mg/kg/day for toluene
W = 16 kg (5 year old child)
I = 0.2 g/day
A = 1

B. *Carcinogenic Constituents*

Sample calculation for 1,1,2,2,-tetrachloroethane:

$C_s = [10^{-6} * 70\ (kg) * 70\ (yrs)]/[0.20\ (mg/kg/day)^{-1} * 0.1\ (g/day) * 0.001\ (kg/g) * 1 * 70\ (yrs)] = 35.0$ mg/kg

where:
C_s = action level in soil (mg/kg)
$R = 10^{-6}$ (1,1,2,2-tetrachloroethane is a Class C carcinogen)
W = 70 kg adult
LT = 70 year lifetime
CSF = 0.20 $(mg/kg/day)^{-1}$
I = 0.1 g/day
A = 1
ED = 70 year exposure duration

Appendix F—List of Constituents Showing Action Level Source Data

Constituent name	Class	Noncarcinogenic effects: Oral RFD (mg/kg/d)	Noncarcinogenic effects: Inhalation RFD (mg/kg/d)	Carcinogenic effects: Oral slope factor (mg/kg/d)-1	Carcinogenic effects: Inhalation slope factor (mg/kg/d) [1]
Acetone	D	1.0E−01			
Acetonitrile	D	6.0E−03			
Acetophenone	D	1.0E−01	5.0E−05		
Acrylamide	B2	2.0E−04		4.5E−00	4.5E−00
Acrylonitrile	B1			5.4E−01	2.4E−01
Aldicarb	D	1.3E−03			
Aldrin	B2	3.0E−05		1.7E+01	1.7E+01
Allyl alcohol	D	5.0E−03			
Aluminum phosphide	D	4.0E−04			
Aniline	B2			5.7E−03	
Antimony	D	4.0E−04			
Arsenic	A	1.0E−03			5.0E+01
Asbestos (2)	A				2.3E−01
Barium cyanide	D	7.0E−02			
Barium, ionic	D	5.0E−02	1.0E−04		
Benzidine	A	3.0E−03		2.3E+02	2.3E+02
Beryllium	B2	5.0E−03		4.3E−00	8.4E−00
Bis(2-ethylhexyl)phthlate	B2	2.0E−02		1.4E−02	
Bis(chloroethyl)ether	B2			1.1E−00	1.1E−00
Bromodichloromethane	B2	2.0E−02		1.3E−00	
Bromoform	D	2.0E−02			
Bromomethane	D	1.4E−03	8.0E−03		
Butyl benzyl phthalate	C	2.0E−01			
Cadmium	B1	5.0E−04			6.1E−00
Calcium cyanide	D	4.0E−02			
Carbon disulfide	D	1.0E−01			
Carbon tetrachloride	B2	7.0E−04		1.3E−01	1.3E−01
Chloral	D	2.0E−03			
Chlordane	B2	6.0E−05		1.3E−00	1.3E−00
Chlorine cyanide	D	5.0E−02			
Chlorobenzene	D	2.0E−02	5.0E−03		
Chloroform	B2	1.0E−02		6.1E−03	8.1E−02
2-Chlorophenol	D	5.0E−03			
Chromium (VI)	A	5.0E−03			4.1E+01
Copper cyanide	D	5.0E−03			
m-Cresol	D	5.0E−02			
o-Cresol	D	5.0E−02			
p-Cresol	D	5.0E−02			
Cyanide	D	2.0E−02			
Cyanogen	D	4.0E−02			
Cyanogen bromide	D	9.0E−02			
DDD	B2			2.4E−01	
DDE	B2			3.4E−01	
DDT	B2	5.0E−04		3.4E−01	3.4E−01
Dibutyl phthalate	D	1.0E−01			
Dibutylnitrosamine	B2			5.4E−00	5.4E−00
3,3'-Dichlorobenzidine	B2			4.5E−01	
Dichlorodifluoromethane	D	2.0E−01	5.0E−02		
1,2-Dichloroethane	B2			9.1E−02	9.1E−02
1,1-Dichloroethylene	C	9.0E−03		6.0E−01	1.2E−00
2,4-Dichlorophenol	D	3.0E−03			
2,4-Dichlorophenoxyacetic acid	D	1.0E−02			
1,3-Dichloropropene	B2	3.0E−04			
Dieldrin	B2	5.0E−05		1.6E+01	1.6E+01
Diethyl phthalate	D	8.0E−01			
Diethylnitrosamine	B2			1.5E+02	1.5E+02

APPENDIX F—LIST OF CONSTITUENTS SHOWING ACTION LEVEL SOURCE DATA—Continued

Constituent name	Class	Noncarcinogenic effects		Carcinogenic effects	
		Oral RfD (mg/kg/d)	Inhalation RfD (mg/kg/d)	Oral slope factor (mg/kg/d)-1	Inhalation slope factor (mg/kg/d) [a]
Dimethoate	D	2.0E−02			
Dimethylnitrosamine	B2			5.1E+01	5.1E+01
m-Dinitrobenzene	D	1.0E−04			
2,4-Dinitrophenol	D	2.0E−03			
2,3-Dinitrotoluene (and 2,6-, mixture)	B2			6.8E−01	
1,4-Dioxane	B2			1.1E−02	
Diphenylamine	D	2.5E−02			
1,2-Diphenylhydrazine	B2			8.0E−01	8.0E−01
Disulfoton	D	4.0E−05			
Endosulfan	D	5.0E−05			
Endothall	D	2.0E−02			
Endrin	D	3.0E−04			
Epichlorohydrin	B2	2.0E−03		9.9E−03	4.2E−03
Ethylbenzene	D	1.0E−01			
Ethylene dibromide	B2			8.5E+01	7.6E−01
Formaldehyde	B1				4.5E−02
Formic acid	D	2.0E−00			
Glycidyaldehyde	D	4.0E−04			
Heptachlor	B2	5.0E−04		4.5E−00	4.5E−00
Heptachlor epoxide	B2	1.3E−05		9.1E−00	9.1E−00
Hexachlorodibenzo-p-dioxin	B2			6.2E+06	6.2E+03
Hexachlorobutadiene	C	2.0E−03		7.8E−02	7.8E−02
alpha-Hexachlorocyclohexane	B2			6.3E−00	6.3E−00
beta-Hexachlorocyclohexane	C			1.8E−00	1.8E−00
Hexachlorocyclopentadiene	D	7.0E−03	2.0E−05		
Hexachloroethane	C	1.0E−03		1.4E−02	1.4E−02
Hexachlorophene	D	3.0E−04			
Hydrazine	B2			3.0E−00	1.7E+01
Hydrogen cyanide	D	2.0E−02			
Hydrogen sulfide	D	3.0E−03			
Isobutyl alcohol	D	3.0E−01			
Isophorone	C	2.0E−01		4.1E−08	
Lead	B2				
Lindane (gamma-hexachlorocyclohexane)	B2/C	3.0E−04		1.3E−00	
m-Phenylenediamine	D	6.0E−03			
Maleic anhydride	D	1.0E−01			
Maleic hydrazide	D	6.0E−01			
Mercury (inorganic)	D	3.0E−04			
Methacrylonitrile	D	1.0E−04	2.0E−04		
Methomyl	D	2.5E−02			
Methyl chlorocarbonate	D				
Methyl ethyl ketone	D	5.0E−02	9.0E−02		
Methyl isobutyl ketone	D	5.0E−02	2.0E−02		
Methyl parathion	D	2.5E−04			
Methylene chloride	B	6.0E−02		7.5E−03	1.4E−02
n-Nitroso-di-n-butylamine	B2			5.4E−00	5.4E−00
n-Nitroso-n-ethylurea	B				
n-Nitroso-n-methylethylamine	B2			2.2E+01	
n-Nitrosodi-n-propylamine	B2			7.0E−00	
n-Nitrosodiethanolamine	B2			2.8E−00	
n-Nitrosodiphenylamine	B2			4.9E−03	
n-Nitrosopyrrolidine	B2			2.1E−00	2.1E−00
Nickel	D	2.0E−02			
Nickel refinery dust	A				8.4E−01
Nitric oxide	D	1.0E−01			
Nitrobenzene	D	5.0E−04	60E−04		
Nitrogen dioxide	D	1.0E−00			
Osmium tetroxide	D	1.0E−05			
Parathion	C	6.0E−03			
Pentachlorobenzene	D	8.0E−04			
Pentachloronitrobenzene	C	3.0E−03			2.5E−01
Pentachlorophenol	D	3.0E−02			
Phenol	D	6.0E−01			
Phenyl mercuric acetate	D	8.0E−05			
Phosphine	D	3.0E−04			
Phthalic anhydride	D	2.0E−00			
Polychlorinated biphenyls	B2			7.7E−00	
Potassium cyanide	D	5.0E−02			
Potassium silver cyanide	D	2.0E−01			
Pronamide	D	7.5E−02			
Pyridine	D	1.0E−03			
Selenious acid	D	3.0E−03			
Selenourea	D	5.0E−03			
Silver	D	3.0E−03			
Silver cyanide	D	1.0E−01			
Sodium cyanide	D	4.0E−02			

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APPENDIX F—LIST OF CONSTITUENTS SHOWING ACTION LEVEL SOURCE DATA—Continued

Constituent name	Class	Noncarcinogenic effects		Carcinogenic effects	
		Oral RFD (mg/kg/d)	Inhalation RFD (mg/kg/d)	Oral slope factor (mg/kg/d)-1	Inhalation slope factor (mg/kg/d) [1]
Strychnine	D	3.0E−04			
Styrene	C	2.0E−01			
1,1,1,2-Tetrachloroethane	C	3.0E−02		2.6E−02	2.6E−02
1,2,4,5-Tetrachlorobenzene	D	3.0E−04			
1,1,1,2-Tetrachloroethane	C	3.0E−02		2.6E−02	2.6E−02
1,1,2,2-Tetrachloroethane	C			2.0E−01	2.0E−01
Tetrachloroethylene	B2	1.0E−02		5.1E−02	3.3E−03
2,3,4,6-Tetrachlorophenol	D	3.0E−02			
Tetraethyl lead	D	1.0E−07			
Tetraethyldithiopyrophosphate	D	5.0E−04			
Thallic oxide	D	7.0E−05			
Thallium acetate	D	9.0E−05			
Thallium carbonate	D	8.0E−05			
Thallium chloride	D	8.0E−05			
Thallium nitrate	D	9.0E−05			
Thallium sulfate	D	8.0E−05			
Thiosemicarbazide	D	6.0E−03			
Thiram	D	5.0E−03			
Toluene	D	3.0E−01	2.0E−00		
Toxaphene	B2			1.1E−00	1.1E−00
1,2,4-Trichlorobenzene	D	2.0E−02	3.0E−03		
1,1,1-Trichloroethane	D	9.0E−02	3.0E−01		
1,1,2-Trichloroethane	C	4.0E−03		5.7E−02	5.7E−02
Trichloroethylene	B2			1.1E−02	
Trichloromonofluoromethane	D	3.0E−01	2.0E−01		
2,4,5-Trichlorophenol	D	1.0E−01			
2,4,6-Trichlorophenol	B2			2.0E−03	2.0E−02
2,4,5-Trichlorophenoxyacetic acid	D	1.0E−02			
1,2,3-Trichloropropane	D	6.0E−03			
Vanadium pentoxide	D	9.0E−03			
Xylenes	D	2.0E−00	3.0E−01		
Zinc cyanide	D	5.0E−02			
Zinc phosphide	D	3.0E−04			

For the reasons set out in the preamble, 40 CFR parts 264, 265, 270, and 271 are proposed to be amended as follows:

PART 264—STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

1. The authority citation for part 264 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6924, and 6925.

2. Section 264.1 is amended by revising paragraphs (d) and (g) introductory text to read as follows:

§ 264.1 Purpose, scope and applicability.

* * * * *

(d) The requirements of this part apply to a person disposing of hazardous waste by means of underground injection subject to a permit issued under an Underground Injection control (UIC) program approved or promulgated under the Safe Drinking Water Act only to the extent they are required by § 144.14 of this chapter and to the extent they are included in a RCRA permit by rule granted to such a person under part 270 of this chapter.

* * * * *

(g) Except as required under subpart S of this part governing releases from solid waste management units, the requirements of this part do not apply to:

* * * * *

§ 264.101 [Removed]

3. In 40 CFR part 264, subpart F, it is proposed to remove § 264.101.

4. In 40 CFR part 264, subpart G, it is proposed to amend § 264.113 by redesignating paragraphs (a)(1)(ii) as (a)(1)(iii) and (b)(1)(ii) as (b)(1)(iii), and by adding new paragraphs (a)(1)(ii) and (b)(1)(ii) to read as follows:

§ 264.113 Closure time allowed for closure.

* * * * *

(a) * * *

(1) * * *

(ii) Corrective action required at the unit or the facility under subpart S will delay the completion of partial or final closure; or

* * * * *

(b) * * *

(1) * * *

(ii) Corrective action required at the unit or the facility under subpart S will delay the completion of partial or final closure; or

* * * * *

5. 40 CFR part 264 is amended by adding subpart S to read as follows:

Subpart S—Corrective Action for Solid Waste Management Units

264.500 Purpose and applicability.
264.501 Definitions.
264.502–264.509 [Reserved].
264.510 Requirement to perform remedial investigations.
264.511 Scope of remedial investigations.
264.512 Plans for remedial investigations.
264.513 Reports of remedial investigations.
264.514 Determination of no further action.
264.515–264.519 [Reserved]
264.520 Requirement to perform corrective measure study.
264.521 Action levels.
264.522 Scope of corrective measure studies.
264.523 Plans for corrective measure studies.
264.524 Reports of corrective measure studies.
264.525 Selection of remedy
264.526 Permit modification for remedy.
264.527 Remedy design.
264.528 Progress reports.
264.529 Review of remedy implementation.
264.530 Completion of remedies.

264.531 Determination of technical impracticability.
264.532–264.539 [Reserved]
264.540 Interim measures.
264.541–264.549 [Reserved]
264.550 Management of wastes.
264.551 Management of hazardous wastes.
264.552 Management of non-hazardous solid wastes.
264.553–264.559 [Reserved]
264.560 Required notices.

Subpart S—Corrective Action for Solid Waste Management Units

§ 264.500 Purpose and applicability.

(a) The provisions of this subpart establish requirements for investigation and corrective action for releases of hazardous waste, including hazardous constituents, from solid waste management units.

(b) The owner or operator of a facility seeking a permit under subtitle C of RCRA must institute investigations and/or corrective action, as necessary to protect human health and the environment, for all releases of hazardous waste, including hazardous constituents, from any solid waste management unit at the facility, regardless of the time at which waste was placed in such unit.

(c) Requirements for investigations and/or corrective action will be specified in the permit. The permit will contain schedules of compliance for such investigations and/or corrective action (where such cannot be completed prior to issuance of the permit) and assurances of financial responsibility for completing such corrective action.

(d) The owner or operator must implement corrective actions beyond the facility property boundary, where necessary to protect human health and the environment, unless the owner or operator demonstrates to the satisfaction of the Regional Administrator that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such actions. The owner or operator is not relieved of responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. Assurances of financial responsibility for completing such corrective action must be provided.

(e) For protection of ground water from landfills, surface impoundments, land treatment units, and waste piles that received listed or identified hazardous waste after July 26, 1982, the provisions of this subpart apply only as specifically provided herein.

(f) The provisions of this subpart do not apply to:

(1) Permits for land treatment demonstrations using field test or laboratory analyses (see § 270.63).

(2) Emergency permits (see § 270.61).

(3) Permits by rule for ocean disposal barges or vessels (see § 270.60(a)).

(4) Research, development, and demonstration permits (see § 270.65).

§ 264.501 Definitions.

For the purpose of complying with the requirements of this subpart, the following definitions apply:

Corrective Action Management Unit means a contiguous area within a facility as designated by the Regional Administrator for the purpose of implementing corrective action requirements of this subpart, which is contaminated by hazardous wastes (including hazardous constituents), and which may contain discrete, engineered land-based sub-units.

Facility means all contiguous property under the control of the owner or operator seeking a permit under subtitle C of RCRA.

Hazardous Constituent means any constituent identified in appendix VIII of 40 CFR part 261, or any constituent identified in appendix IX of 40 CFR part 264.

Hazardous Waste means a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical chemical, or infectious characteristics may cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed. The term hazardous waste includes hazardous constituent as defined above.

Release means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of hazardous wastes (including hazardous constituents) into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing hazardous wastes or hazardous constituents).

Solid Waste Management Unit means any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

§§ 264.502–264.509 [Reserved]

§ 264.510 Requirement to perform remedial investigations.

If the Regional Administrator determines that hazardous waste (including hazardous constituents) have been, are likely to have been, or, based on site-specific circumstances, are likely to be released into the environment from a solid waste management unit at the facility, the Regional Administrator may specify in the permit schedule of compliance that the permittee investigate and characterize solid waste management units and releases from solid waste management units at the facility.

§ 264.511 Scope of remedial investigations.

(a) Investigations required under § 264.510 shall characterize the nature, extent, direction, rate, movement and concentration of releases, as required by the Regional Administrator. In addition, such investigations may include, but are not limited to, the following:

(1) Characterizations of the environmental setting at the facility, including:

(i) Hydrogeological conditions;

(ii) Climatological conditions;

(iii) Soil characteristics;

(iv) Surface water and sediment quality and other characteristics; or

(v) Air quality and meteorological conditions.

(2) Characterization of solid waste management units from which releases have been or may be occurring, including unit and waste characteristics.

(3) Descriptions of humans and environmental systems which are, may have been, or, based on site-specific circumstances, may be exposed to release(s).

(4) Information that will assist the Regional Administrator in assessing risks to human health and the environment from releases from solid waste management units.

(5) Extrapolations of future movement, degradation and fate of contaminants.

(6) Laboratory, bench-scale or pilot-scale tests or studies to determine the feasibility or effectiveness of treatment technologies or other technologies that may be appropriate in implementing remedies at the facility.

(7) Statistical analyses to aid in the interpretation of data required under § 264.510, in accordance with statistical methods approved by the Regional Administrator.

(b) Samples of ground water, surface water, soils, or air which are collected as part of remedial investigations

required under § 264.510 shall be analyzed for those constituents and parameters determined to be necessary by the Regional Administrator to accurately and adequately characterize the presence of hazardous wastes (including hazardous constituents) in the samples.

§ 264.512 Plans for remedial investigations.

(a) The Regional Administrator may require the permittee to develop and submit a plan(s) for conducting any remedial investigations required under § 264.510 of this subpart. Such plans shall be subject to review and approval or modification by the Regional Administrator, and shall be developed and submitted according to a schedule specified in the schedule of compliance. Such plans may include, but are not limited to, the following:

(1) Overall approach, including objectives, schedules, and qualifications of personnel conducting investigations.

(2) Technical and analytical approach and methods for investigations.

(3) Quality assurance procedures, including:

(i) Data collection strategy;

(ii) Sampling, chain of custody procedures; and

(iii) Methods of sample analysis.

(4) Data management procedures, including formats for documenting analytical results and tracking sample custody, and other results of investigations.

(b) Upon approval or modification of the plan by the Regional Administrator, the plan shall be incorporated expressly or by reference as a part of the permit schedule of compliance. The permittee shall conduct the studies and investigations in accordance with the plan and any other requirements specified in the permit schedule of compliance.

§ 264.513 Reports of remedial investigations.

(a) The Regional Administrator may require periodic reports to be submitted by the permittee during remedial investigations required under § 264.510, and may, based on information from the investigations, or other information, require new or modified investigations. Such modifications will, if necessary, be specified by modifying the permit schedule of compliance.

(b) Upon conclusion of the remedial investigations, the permittee shall submit to the Regional Administrator for approval:

(1) A final report describing the procedures, methods, and results of the remedial investigations, in such format and containing such information as specified by the Regional Administrator; and

(2) A summary of the report.

(c) If, upon receipt of the final report and summary, the Regional Administrator determines that the final report and summary do not fully satisfy the requirements for the report and summary specified in the permit schedule of compliance, or otherwise do not provide a full and accurate summary and description of the remedial investigations, the Regional Administrator may require the permittee to submit a revised report.

(d) Upon approval of the summary, the permittee shall mail it to all individuals on the facility mailing list (required under § 124.10(c)(1)(viii)).

(e) All raw data, such as laboratory reports, drilling logs and other supporting information generated from investigations required under § 264.510 shall be maintained at the facility (or other location approved by the Regional Administrator) during the term of the permit, including any reissued permit.

§ 264.514 Determination of no further action.

(a)(1) Based on the results of investigations required under § 264.510 or other relevant information the permittee may submit an application to the Regional Administrator for a permit modification to terminate the schedule of compliance for corrective action, according to the procedures for Class III permit modifications under § 270.42.

(2) The permit modification application must contain information demonstrating that there are no releases of hazardous waste (including hazardous constituents) from solid waste management units at the facility that may pose a threat to human health or the environment.

(b) If the Regional Administrator, upon review of the request for a permit modification, reports submitted under § 264.513, or other information, determines that there is no such threat to human health and the environment from releases from solid waste management units at the facility. The Regional Administrator shall grant the permit modification according to the procedures of § 270.42.

(c) Any determination made pursuant to § 264.514(b) will not affect the authority or responsibility of the Regional Administrator to:

(1) Modify the permit at a later date to require the permittee to perform such investigations and studies as may be necessary to comply with the requirements of this Subpart, if new information or subsequent analysis indicates that there are, or are likely to be, releases from solid waste management units at the facility that may pose a threat to human health or the environment; or

(2) Require continued or periodic monitoring under the terms of the permit if the Regional Administrator determines, based on site-specific circumstances, that releases are likely to occur.

§§ 264.515–264.519 [Reserved]

§ 264.520 Requirement to perform corrective measure study.

(a) If at any time the Regional Administrator determines that concentrations of hazardous constituents in ground water in an aquifer, surface water, soils, or air exceed an action level (as defined under § 264.521), and there is reason to believe that such hazardous constituents have been released from a solid waste management unit at the facility, the Regional Administrator shall require as part of the permit schedule of compliance that the permittee perform a corrective measure study, according to the requirements of §§ 264.522–264.524, except as otherwise provided under § 264.520(c).

(b) If the Regional Administrator determines that a constituent(s) present in a concentration below an action level (as defined under § 264.521) may pose a threat to human health or the environment, given site-specific exposure conditions, and there is reason to believe that the constituent(s) has been released from a solid waste management unit at the facility, the Regional Administrator may require a corrective measure study according to the requirements of §§ 264.522–264.524.

(c) If an action level has been exceeded (as provided under § 264.520(a), but the Regional Administrator determines that the release(s) may nevertheless not pose a threat to human health and the environment, the Regional Administrator may allow the permittee to apply for a determination of no further action, according to § 264.514.

(d) The Regional Administrator shall notify the permittee in writing of the requirement to conduct a corrective measure study. This notice shall identify the hazardous constituent(s) which exceed action levels defined under § 264.521, as well as any hazardous constituent(s) identified pursuant to § 264.520(b).

(e) For purposes of §§ 264.520, 264.521, 264.525 (d) and (e), the term "constituent" refers to hazardous

constituents, as defined in § 264.501, as well as other hazardous wastes (as defined in § 264.501) that are single chemical constituents.

§ 264.521 Action levels.

Action levels are defined as follows:

(a) Action levels for constituents in ground water in an aquifer which the Regional Administrator has reason to believe may have been released from a solid waste management unit at the facility shall be concentration levels specified as:

(1) Maximum contaminant levels (MCLs) promulgated under § 141.2 of the Safe Drinking Water Act (40 CFR part 141 subpart B); or

(2) For constituents for which MCLs have not been promulgated, a concentration which satisfies the following criteria, assuming exposure through consumption of the water contaminated with the constituent:

(i) Is derived in a manner consistent with Agency guidelines for assessing the health risks of environmental pollutants (51 FR 33992, 34006, 34014, 34028); and

(ii) Is based on scientifically valid studies conducted in accordance with the Toxic Substances Control Act (TSCA) Good Laboratory Practice Standards (40 CFR part 792), or equivalent; and

(iii) For carcinogens, represents a concentration associated with an excess upper bound lifetime cancer risk of $1x10^{-6}$ due to continuous constant lifetime exposure, and considers the overall weight of evidence for carcinogenicity; and

(iv) For systemic toxicants, represents a concentration to which the human population (including sensitive subgroups) could be exposed on a daily basis that is likely to be without appreciable risk of deleterious effects during a lifetime.

(b) Action levels for constituents in air which the Regional Administrator has reason to believe may have been released from a solid waste management unit at the facility shall be defined as concentrations which meet the criteria specified in § 264.521(a)(2)(i)–(iv), assuming exposure through inhalation of the air contaminated with the constituent, as measured or estimated at the facility boundary, or another location closer to the unit if necessary to protect human health and the environment.

(c) Action levels for constituents in surface water which the Regional Administrator has reason to believe may have been released from a solid waste management unit at the facility shall be specified as:

(1) Water Quality Standards established pursuant to section 303(c) of the Clean Water Act (40 CFR part 131) by the State in which the facility is located, where such standards are expressed as numeric values; or

(2) Numeric interpretations of State narrative water quality standards, if appropriate, where water quality standards expressed as numeric values have not been established by the State; or

(3) MCLs promulgated under the Safe Drinking Water Act for constituents in surface waters designated by the State for drinking water supply, where numeric values or numeric interpretations, described in paragraphs (1) and (2), are not available; or

(4) For constituents in surface waters designated by the State for drinking water supply for which numeric values, numeric interpretations, or MCLs (as described in paragraphs 1–3 above) are not available, a concentration which meets the criteria specified in § 264.521(a)(2)(i)–(iv), assuming exposure through consumption of the water contaminated with the constituent; or

(5) For constituents in surface waters designated for a use or uses other than drinking water supply and for which numeric values or numeric interpretations (as described in paragraphs (1) and (2) above) have not been established, a concentration established by the Regional Administrator which meets the criteria specified in § 264.521(a)(2)(i)–(iv), considering the use or uses of the receiving waters.

(d) Action levels for constituents in soils that the Regional Administrator has reason to believe may have been released from a solid waste management unit at the facility shall be defined as concentrations which meet the criteria specified in § 264.521(a)(2)(i)–(iv), assuming exposure through consumption of the soil contaminated with the constituent.

(e) If, for a constituent(s) detected in ground water in an aquifer, air, surface water or soils, a concentration level that meets the criteria of § 264.521(a)–(d) is not available, the Regional Administrator may establish an action level for the constituent as:

(1) A level that is an indicator for protection of human health and the environment, using the exposure assumptions for the medium specified under § 264.521(a)–(d); or

(2) The background concentration of the constituent.

§ 264.522 Scope of corrective measure studies.

(a) As determined by the Regional Administrator, corrective measure studies required under § 264.520 may include, but are not limited to, the following:

(1) Evaluation of performance, reliability, ease of implementation, and potential impacts of the remedy, including safety impacts, cross media impacts, and control of exposure to any residual contamination.

(2) Assessment of the effectiveness of potential remedies in achieving adequate control of sources and cleanup of the hazardous waste (including hazardous constituents) released from solid waste management units.

(3) Assessment of the time required to begin and complete the remedy.

(4) Estimation of the costs of remedy implementation.

(5) Assessment of institutional requirements, such as State or local permit requirements, or other environmental or public health requirements which may substantially affect implementation of the remedy(s).

(b) The Regional Administrator may require the permittee to evaluate as part of the corrective measure study one or more specific potential remedies. These remedies may include a specific technology or combination of technologies that, in the Regional Administrator's judgment, achieves or may achieve the standards for remedies specified in § 264.525(a) given appropriate consideration of the factors specified in § 264.525(b).

§ 264.523 Plans for corrective measure studies.

(a) The Regional Administrator may require the permittee to develop and submit a plan(s) for conducting a corrective measure study required under § 264.520. The plan shall be subject to review and approval or modification by the Regional Administrator, and shall be developed and submitted according to a schedule specified in the permit schedule of compliance. Such plans may include, but are not limited to, the following:

(1) Description of the general approach to investigating and evaluating potential remedies;

(2) Definition of the overall objectives of the study;

(3) Description of the specific remedy(s) which will be studied;

(4) Plans for evaluating remedies to ensure compliance with the standards for remedies specified in § 264.525(a);

(5) Schedules for conducting the study; and

(6) Proposed format for information presentation.

(b) Upon approval or modification of the corrective measure study plan by the Regional Administrator, the plan shall be incorporated expressly or by reference as part of the permit schedule of compliance. The permittee shall conduct the studies and investigations in accordance with the plan and any other requirements as specified in the permit schedule of compliance.

§ 264.524 Reports of corrective measure studies.

(a) The Regional Administrator may require periodic reports during the conduct of the corrective measure study, and may, based on information from these reports or other information, require the permittee to modify the corrective measure study. Such modifications will, if necessary, be specified by modifying the permit schedule of compliance.

(b) Upon completion of the corrective measure study, the permittee shall submit a report summarizing the results of the study. This report must include a detailed description of the remedies assessed pursuant to § 264.522 or § 264.524(a). The report shall describe how any proposed remedy(s) meets the standards for remedies as specified in § 264.525(a).

(c) Upon review of the corrective measure study report, the Regional Administrator may require the permittee to evaluate further, and report upon, one or more additional remedies, or develop particular elements of one or more proposed remedies. Such further requirements will, if necessary, be specified by modifying the permit schedule of compliance.

§ 264.525 Selection of remedy.

Based on the results of the corrective measure study, and any further evaluations conducted under § 264.524(c), the Regional Administrator shall, except as otherwise provided under paragraph (f) of this section, select a remedy that, at a minimum, meets the standards listed in paragraph (a) of this section.

(a) *Standards for remedies.* Remedies must:

(1) Be protective of human health and the environment;

(2) Attain media cleanup standards as specified pursuant to paragraphs (d) and (e) of this section;

(3) Control the source(s) of releases so as to reduce or eliminate, to the extent practicable, further releases of hazardous wastes (including hazardous constituents) that may pose a threat to human health and the environment; and

(4) Comply with standards for management of wastes as specified in §§ 264.550–264.559 of this subpart.

(b) *Remedy selection factors.* In selecting a remedy which meets the standards of § 264.525(a), the Regional Administrator shall consider the following evaluation factors as appropriate:

(1) *Long-term reliability and effectiveness.* Any potential remedy(s) may be assessed for the long-term reliability and effectiveness it affords, along with the degree of certainty that the remedy will prove successful. Factors that shall be considered in this evaluation include:

(i) Magnitude of residual risks in terms of amounts and concentrations of waste remaining following implementation of a remedy, considering the persistence, toxicity, mobility and propensity to bioaccumulate of such hazardous wastes (including hazardous constituents);

(ii) The type and degree of long-term management required, including monitoring and operation and maintenance;

(iii) Potential for exposure of humans and environmental receptors to remaining wastes;

(iv) Long-term reliability of the engineering and institutional controls, including uncertainties associated with land disposal of untreated wastes and residuals; and

(v) Potential need for replacement of the remedy.

(2) *Reduction of toxicity, mobility or volume.* A potential remedy(s) may be assessed as to the degree to which it employs treatment that reduces toxicity, mobility or volume of hazardous wastes (including hazardous constituents). Factors that shall be considered in such assessments include:

(i) The treatment processes the remedy(s) employs and materials it would treat;

(ii) The amount of hazardous wastes (including hazardous constituents) that would be destroyed or treated;

(iii) The degree to which the treatment is irreversible;

(iv) The residuals that will remain following treatment, considering the persistence, toxicity, mobility and propensity to bioaccumulate of such hazardous wastes (including hazardous constituents).

(3) The short-term effectiveness of a potential remedy(s) may be assessed considering the following:

(i) Magnitude of reduction of existing risks;

(ii) Short-term risks that might be posed to the community, workers, or the environment during implementation of such a remedy, including potential threats to human health and the environment associated with excavation, transportation, and redisposal or containment;

(iii) Time until full protection is achieved.

(4) *Implementability.* The ease or difficulty of implementing a potential remedy(s) may be assessed by considering the following types of factors:

(i) Degree of difficulty associated wit constructing the technology;

(ii) Expected operational reliability o the technologies;

(iii) Need to coordinate with and obtain necessary approvals and permit from other agencies;

(iv) Availability of necessary equipment and specialists;

(v) Available capacity and location o needed treatment, storage and disposal services.

(5) *Cost.* The types of costs that may be assessed include the following:

(i) Capital costs;

(ii) Operation and maintenance costs;

(iii) Net present value of capital and operation and maintenance costs;

(iv) Potential future remedial action costs.

(c) *Schedule for remedy.* The Regional Administrator shall specify as part of the selected remedy a schedule(s) for initiating and completing remedial activities. The Regional Administrator will consider the following factors in determining the schedule of remedial activities:

(1) Extent and nature of contamination.

(2) Practical capabilities of remedial technologies in achieving compliance with media cleanup standards, and other objectives of the remedy.

(3) Availability of treatment or disposal capacity for wastes managed during implementation of the remedy.

(4) Desirability of utilizing technologies which are not currently available, but which may offer significant advantages over already available technologies in terms of effectiveness, reliability, safety, or ability to achieve remedial objectives.

(5) Potential risks to human health and the environment from exposure to contamination prior to completion of the remedy.

(6) Other relevant factors.

(d) *Media Cleanup Standards.* Except as otherwise provided by § 264.525(d)(2), the Regional Administrator shall specify in the selected remedy requirements for remediation of contaminated media as follows:

(1) Regional Administrator shall specify concentration levels of hazardous constituents in ground water, surface water, air or soils that the remedy must achieve, as necessary to protect human health and the environment. Such media cleanup standards will be established by the Regional Administrator as follows:

(i) The cleanup standard(s) shall be concentration levels in the affected media which protect human health and the environment.

(ii) Unless a lower concentration level is deemed necessary to protect environmental receptors, cleanup standards shall be established as follows:

(A) For known or suspected carcinogens, cleanup standards shall be established at concentration levels which represent an excess upperbound lifetime risk to an individual of between 1×10^{-6} and 1×10^{-6}. The Regional Administrator shall use the 1×10^{-6} risk level as the point of departure in establishing such concentration levels.

(B) For systemic toxicants, cleanup standards shall represent concentration levels to which the human population (including sensitive subgroups) could be exposed on a daily basis without appreciable risk of deleterious effect during a lifetime.

(iii) In establishing media cleanup standards which meet the requirements of § 264.525(d)(1) (i) and (ii), above, the Regional Administrator may consider the following:

(A) Multiple contaminants in the medium;

(B) Exposure threats to sensitive environmental receptors;

(C) Other site-specific exposure or potential exposure to contaminated media;

(D) The reliability, effectiveness, practicability, or other relevant features of the remedy.

(iv) For ground water and surface water that is a current or potential source of drinking water, the Regional Administrator shall consider maximum contaminant levels promulgated under section 141.2 of the Safe Drinking Water Act (40 CFR part 141 subpart B) in establishing media cleanup standards.

(v) If the permittee can demonstrate to the satisfaction of the Regional Administrator that a specific concentration of a constituent in a medium at the facility is naturally occurring or from a source other than a solid waste management unit at the facility, the cleanup level established under this Subpart for the constituent in the medium shall not be below that specific concentration, unless the Regional Administrator establishes that:

(A) Remediation to levels below that specified concentration is necessary to protect human health and the environment; and

(B) Such remediation is in connection with an areawide cleanup under RCRA or other authorities.

(2) The Regional Administrator may determine that remediation of a release of a constituent from a solid waste management unit to a media cleanup standard established pursuant to § 264.525(d)(1) is not necessary if the permittee demonstrates to the Regional Administrator's satisfaction that:

(i) The affected medium is also contaminated by substances that are naturally occurring or have originated from a source other than a solid waste managment unit at the facility, and those substances are present in concentrations such that remediation of the release from the solid waste management unit would provide no significant reduction in risks to actual or potential receptors; or

(ii) The constituent(s) is present in ground water that:

(A) Is not a current or potential source of drinking water, and

(B) Is not hydraulically connected with waters to which the hazardous constituents are migrating or are likely to migrate in a concentration(s) greater than an action level(s) specified according to § 264.522; or

(iii) Remediation of the release(s) to media cleanup standards is technically impracticable.

(3) If a determination is made pursuant to paragraph (d)(2) of this section the Regional Administrator may require any alternative measure(s) or standards he or she determines are necessary to protect human health and the environment, including the control of further releases.

(e) *Compliance with media cleanup standards.* The Regional Administrator shall specify in the remedy requirements for achieving compliance with the media cleanup standards established under § 264.525(d) (or alternative levels under § 264.525(d)(1)(v) or (d)(3)), as follows:

(1) The Regional Administrator shall specify where compliance with such standards or levels must be achieved, as follows:

(i) For ground water, the cleanup standard(s) or levels shall be achieved throughout the contaminated ground water, or, at the Regional Administrator's discretion, when waste is left in place, up to the boundary of a waste management area encompassing the original source(s) of release.

The Regional Administrator shall specify the locations at which ground-water monitoring wells must be located for purposes of:

(A) Monitoring the effectiveness of the ground-water remediation program; and

(B) Demonstrating compliance with the ground-water cleanup standard(s) or level(s).

(ii) For air, the cleanup standard(s) or level(s) shall be achieved at the location of the most exposed individual, or other specified point(s) of exposure closer to the source of the release, if determined by the Regional Administrator to be necessary to protect human health and the environment. The Regional Administrator shall specify locations where air monitoring devices must be installed, or what emission modeling or testing, atmospheric dispersion models, or other methods must be used to demonstrate that compliance with any air cleanup standard(s) or level(s) has been achieved at the point(s) of exposure.

(iii) For surface water, the cleanup standard(s) or level(s) shall be achieved at the point where the release(s) enters the surface water. For releases that have accumulated in surface water sediments, the Regional Administrator may, as necessary to protect human health and the environment, require that a cleanup standard(s) or level(s) be achieved at designated locations in the sediments. The Regional Administrator will specify the locations where surface water or sediment samples must be taken to monitor surface water quality, and demonstrate that compliance with any surface water cleanup standard(s) or level(s) has been achieved.

(iv) For soils, the cleanup standard(s) shall be achieved at any point where direct contact exposure to the soils may occur. The Regional Administrator will specify the locations, or methods for determining appropriate locations, where soil samples must be taken to demonstrate compliance with the soil cleanup standard(s) or level(s).

(v) If the owner/operator is unable to obtain the necessary permission to undertake corrective action beyond the facility boundary, and can demonstrate to the satisfaction of the Regional Administration that despite the owner/operator's best efforts, she is as a result unable to achieve media cleanup standards or levels beyond the facility boundary, then media cleanup standards or levels must be achieved to the extent practicable, as specified by the Regional Administrator.

(2) The Regional Administrator will specify in the remedy the sampling and analytical methods, any statistical analyses that may be required, and the frequency(s) of sampling or monitoring

that may be required to characterize levels of hazardous constituents in ground water, surface water, air or soils.

(3) The Regional Administrator will specify in the remedy the length of time during which the permittee must, in order to achieve compliance with a media cleanup standard or level, demonstrate that concentrations of hazardous constituents have not exceeded the standard(s). Factors that may be considered by the Regional Administrator in determining these timing requirements include:

(i) Extent and concentration of the release(s);

(ii) Behavior characteristics of the hazardous constituents in the affected medium;

(iii) Accuracy of monitoring or modeling techniques;

(iv) Characteristics of the affected media; and

(v) Seasonal, meteorological, or other environmental variabilities which may affect the accuracy of monitoring or modeling results

(f) Conditional remedies. (1) If the criteria of § 264.525(f)(2) are met, the Regional Administrator may select a conditional remedy that protects human health and the environment under plausible exposure conditions during the term of the permit.

(2) A conditional remedy must:

(i) Protect human health and the environment; and

(ii) Achieve all media cleanup standards or levels as specified pursuant to paragraphs (d) and (e) of this section beyond the facility boundary as soon as practicable; and

(iii) Prevent further significant environmental degration by implementing, as soon as practicable:

(A) treatment or other necessary engineering controls to control any source(s) of releases; and

(B) engineered measures as necessary to prevent further significant migration of releases within the facility boundary.

(iv) Institute effective institutional or other controls to prevent any significant exposure to hazardous wastes at the facility; and

(v) Continue the monitoring of releases so as to determine whether further significant environmental degradation occurs; and

(vi) Include assurances of financial responsibility for the remedy; and

(vii) Comply with standards for management of wastes as specified in §§ 264.550–264.559 of this subpart.

(3) If at any time during the term of the permit, any condition of paragraph (f)(2) of this section is violated, the Regional Administrator shall modify the permit to:

(i) Require the permittee to perform additional studies or actions, or implement additional controls to achieve compliance with the requirements of paragraph (f)(2) of this section; or

(ii) Require additional studies, actions, or controls as necessary to implement a remedy which meets the standards of § 264.525(a).

(4) The permit shall not be terminated until a remedy which meets the standards of § 264.525(a) has been implemented and certified complete according to § 264.530.

§ 264.526 Permit modification for remedy.

(a) The Regional Administrator shall modify the permit to specify the remedy selected according to § 264.525, according to the procedures for major permit modifications under § 270.41.

(b) The permit modification shall include, at a minimum, the following:

(1) Description of the technical features of the remedy that are necessary for achieving the standards for remedies specified in § 264.525(a) and/or (f).

(2) All media cleanup standards established pursuant to § 264.525(d).

(3) Requirements for achieving compliance with media cleanup standards, pursuant to § 264.525(e).

(4) Requirements for complying with the standards for management of wastes, pursuant to §§ 264.550–264.559.

(5) Requirements for removal, decontamination, closure, or post-closure of units, equipment, devices or structures that will be used to implement the remedy.

(6) A schedule for initiating and completing the major technical features and milestones of the remedy.

(7) Requirements for submission of reports and other information.

(c)(1) The schedule of compliance specified in the permit modification shall include a schedule for the permittee to demonstrate financial assurance for completing the remedy specified according to § 264.526(b). The schedule shall require the demonstration no later than 120 days after the effective date of the permit modification.

(2) If the remedy requires closure of a hazardous waste management unit, and the schedule of compliance for the remedy supplants or modifies the unit's closure or post-closure plan, the Regional Administrator may partially or fully release existing financial assurance for closure, post-closure, and third party liability required under §§ 264.143, 264.145, and 264.147. Such releases shall not be effective until the financial assurance requirements at § 264.526(c)(1) are satisfied.

(d) A remedy specified in a permit modification may be separated into phases. A remedy phase may consist of any set of actions performed over time, or any actions that are concurrent but located at different areas, provided that the actions are consistent with the final remedy.

§ 264.527 Remedy design.

(a) The Regional Administrator may require the permittee, upon modification of the permit according to § 264.526, to prepare detailed construction plans and specifications to implement the approved remedy at the facility, unless such plans and specifications have already been specified in the permit modification. Such plans shall be subject to review and approval or modification by the Regional Administrator, and shall be developed and submitted in accordance with the permit schedule of compliance. Upon approval by the Regional Administrator, the plan shall be incorporated expressly or by reference into part of the permit schedule of compliance. The plans and specifications must include, but are not limited to, the following:

(1) Designs and specifications for units in which hazardous wastes and non-hazardous solid wastes will be managed, as specified in the approved remedy.

(2) Implementation and long-term maintenance plans.

(3) Project schedule.

(4) Construction quality assurance program.

(b) Upon approval of the plans and specifications for the remedy, the permittee shall—

(1) Implement the remedy in accordance with the plans and specifications, and consistent with the objectives of the remedy specified in the permit;

(2) Place the plans and specifications in the information repository, if required under § 270.36;

(3) Provide written notice of the availability for inspection of the approved plans and specifications for the remedy to all individuals on the facility mailing list. If an information repository has not been required pursuant to § 270.36, the notice shall specify where the plans and specifications are available for inspection; and

(4) Revise the cost estimate used to demonstrate financial assurance under § 264.526(c), if necessary.

§ 264.528 Progress reports.

(a) The permittee may be required by the Regional Administrator to provide

progress reports during the design, construction, operation and maintenance of any remedy. Frequency and format of reports shall be determined by the Regional Administrator and specified in the permit schedule of compliance. Such reports may include, but are not limited to:

(1) Summaries of progress of remedy implementation, including results of monitoring and sampling activities, progress in meeting media cleanup standards, and description of other remediation activities.

(2) Problems encountered during the reporting period, and actions taken or proposed to resolve the problems

(3) Changes in personnel conducting or managing the remedial effort.

(4) Project work for next reporting period.

(5) Copies of laboratory reports and field sampling reports.

(b) All raw data, such as laboratory reports, drilling logs and other supporting information generated from the remedial activities shall be maintained at the facility (or other location approved by the Regional Administrator) during the life of the permit, including the term of any reissued permits.

§ 264.529 Review of remedy implementation.

The Regional Administrator shall periodically review the progress of the remedy. Based on such review, the Regional Administrator may modify the permit schedule of compliance to require additional remedial measures to ensure prompt completion, safety, effectiveness, protectiveness, or reliability of the remedy.

§ 264.530 Completion of remedies.

(a) Remedies specified pursuant to § 264.526 shall be considered complete when the Regional Administrator determines that:

(1) Compliance with all media cleanup standards (or alternate levels) as specified in the permit have been achieved, according to the requirements of § 264.525(e); and

(2) All actions required to control the source(s) of contamination have been satisfied; and

(3) Procedures specified for removal, decontamination, closure, or post-closure care of units, equipment, devices or structures required to implement the remedy have been complied with.

(b) Upon completion of the remedy, the permittee shall submit to the Regional Administrator, by registered mail, a request for termination of the corrective action schedule of compliance according to the procedures for Class III modifications in § 270.42. The request shall include a certification that the remedy has been completed in accordance with the requirements of § 264.530(a), and that all other terms and conditions specified in the permit pursuant to Subpart S have been satisfied. The certification must be signed by the permittee and by an independent professional(s) skilled in the appropriate technical discipline(s).

(c) When, upon receipt of the certification, and in consideration of public comments and any other relevant information, the Regional Administrator determines that the corrective measure remedy has been completed in accordance with the terms and conditions of the permit and the requirements for remedy completion under § 264.530(a), the Regional Administrator shall:

(1) Modify the permit to terminate the corrective action schedule of compliance, according to the Class III procedures of § 270.42.

(2) Upon modification of the permit, release the permittee from the requirements for financial assurance for corrective action under § 264.500(c) and § 264.90.

(d) If a remedy includes one or more identified phases, the Regional Administrator may:

(1) Require separate certification that the remedy phase has been completed as specified in the permit, to be signed by the permittee and an independent professional(s) skilled in the appropriate technical discipline(s); and

(2) Release the permittee from the requirements for financial assurance for that remedy phase, if the Regional Administrator determines that the remedy phase has been successfully completed.

§ 264.531 Determination of technical impracticability.

(a) The Regional Administrator may determine, based on information developed by the permittee or other information, that compliance with a requirement(s) for the remedy is not technically practicable. In making such determinations, the Regional Administrator shall consider:

(1) The permittee's efforts to achieve compliance with the requirement(s); and

(2) Whether other currently available or new and innovative methods or technologies could practicably achieve compliance with the requirements.

(b) If the Regional Administrator determines that compliance with a remedy requirement is not technically practicable, the Regional Administrator shall modify the permit schedule of compliance to specify as necessary and appropriate:

(1) Further measures that may be required of the permittee to control exposure of humans or the environment to residual contamination, as necessary to protect human health and the environment; and

(2) Alternate levels or measures for cleaning up contaminated media, controlling the source(s) of contamination, or for removal or decontamination of equipment, units, devices, or structures required to implement the remedy which:

(i) Are technically practicable; and

(ii) Are consistent with the overall objectives of the remedy

§§ 264.532-264.539 [Reserved]

§ 264.540 Interim measures.

(a) If, at any time the Regional Administrator determines, based on consideration of the factors specified in § 264.540(b), that a release or, based on site-specific circumstances, a threatened release from a solid waste management unit(s) at the facility poses a threat to human health or the environment, the Regional Administrator may specify in the permit interim measures required of the permittee to abate, minimize, stabilize, mitigate, or eliminate the release(s) or threat of release(s).

(b) The following factors may be considered by the Regional Administrator in determining whether an interim measure(s) is required:

(1) Time required to develop and implement a final remedy;

(2) Actual or potential exposure of nearby populations or environmental receptors to hazardous wastes (including hazardous constituents);

(3) Actual or potential contamination of drinking water supplies or sensitive ecosystems;

(4) Further degradation of the medium which may occur if remedial action is not initiated expeditiously;

(5) Presence of hazardous wastes (including hazardous constituents) in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release;

(6) Presence of high levels of hazardous wastes (including hazardous constituents) in soils largely at or near the surface, that may migrate;

(7) Weather conditions that may cause hazardous wastes (including hazardous constituents) to migrate or be released;

(8) Risks of fire or explosion, or potential for exposure to hazardous wastes (including hazardous constituents) as a result of an accident

or failure of a container or handling system:

(9) Other situations that may pose threats to human health and the environment.

(c) If the Regional Administrator determines that an interim measure is necessary pursuant to § 264.540(a), the Regional Administrator shall notify the permittee of the necessary actions required. Such actions shall be implemented as soon as practicable, in accordance with a schedule as specified by the Regional Administrator. The Regional Administrator shall modify the permit schedule of compliance, if necessary, to require implementation of an interim measure, in accordance with the procedures of § 270.34 or § 270.41, as appropriate.

(d) Interim measures should, to the extent practicable, be consistent with the objectives of, and contribute to the performance of any remedy which may be required pursuant to § 264.525.

§§ 264.541-549 (Reserved)

§ 264.550 Management of wastes.

(a) All solid wastes which are managed pursuant to a remedy required under § 264.525, or an interim measure required under § 264.540, shall be managed in a manner:

(1) That is protective of human health and the environment; and

(2) That complies with applicable Federal, State and local requirements.

(b) The Regional Administrator shall specify in the permit requirements for units in which wastes will be managed, and other waste managament activities, as determined by the Regional Administrator to be necessary for protection of human health and the environment.

§ 264.551 Management of hazardous wastes.

(a) Except as Provided herein and in paragraphs (b) and (c) of this section any treatment, storage or disposal of listed or identified hazardous waste necessary to implement a remedy or an interim measure shall be in accordance with the applicable standards of 40 CFR parts 262, 264, 268 and 269. Requirements for closure contained in subpart G of 40 CFR part 264, except for § 264.111, may be waived by the Regional Administrator for units created for the purpose of managing corrective action wastes.

(b)(1) For temporary units (except for incinerators and other non-tank thermal treatment units) in which hazardous wastes will be stored or treated, the Regional Administrator may determine that a design, operating, or closure standard(s) applicable to such unit(s) solely by regulation may be replaced by alternative requirements which are protective of human health and the environment.

(2) Any temporary unit to which alernative requirements are applied according to paragraph (b)(1) of this section shall:

(i) Be operated for a period not exceeding 180 calendar days, unless the period is extended under § 264.551(b)(3) below; and

(ii) Be located at the facility; and

(iii) Be used only for treatment or storage of hazardous wastes (including hazardous constituents), or other solid wastes that have originated within the boundary of the facility.

(3) The Regional Administrator may grant an extension to the 180-day period of a temporary unit if hazardous wastes must remain in the unit due to unforeseen, temporary, and uncontrollable circumstances. The owner/operator must request this extension as a Class I modification, with Director approval, under the procedures of § 270.42.

(4) In establishing standards to be applied to temporary units, the Regional Administrator shall consider the following factors:

(i) The length of time such unit(s) will be in operation.

(ii) Type of unit, and volumes of wastes to be managed.

(iii) Potential for releases from the unit(s).

(iv) Physical and chemical characteristics of the wastes to be managed in the unit(s).

(v) Hydrogeological and other relevant environmental conditions at the facility which may influence the migration of any potential releases.

(vi) Potential for exposure of humans and environmental receptors if releases were to occur from the unit(s).

(5) The Regional Administrator shall specify in the permit the length of time that such units will be allowed to operate, and specific design, operating, and closure requirements for the unit(s).

(c) For the purposes of implementing remedies under this subpart, the Regional Administrator may designate an area of contamination as a corrective action management unit.

(1) Movement or consolidation of wastes within a corrective action management unit will not constitute placement of hazardous wastes in a hazardous waste management unit.

(2) Consolidation of wastes within the corrective action management unit will not constitute creation of a new, replacement, or lateral expansion of a hazardous waste management unit.

(3) In making determinations as to whether a corrective action managemen unit is appropriate for implementing a remedy at a facility, and/or the nature and configuration of a corrective action management unit at a facility, the Regional Administrator may consider the following:

(i) The nature, extent and location of surficial contamination at the facility;

(ii) The potential benefits of a corrective action management unit in achieving remedial objectives for the facility, including (but not limited to):

(A) Expediting the timing of remedy implementation; and

(B) Enhancing the effectiveness, cost-effectiveness, reliability or protectiveness of a remedy;

(iii) The practicability of alternative remedial approaches; or

(iv) Other relevant factors.

(4) The requirements of subpart G of 40 CFR part 264 will not apply to corrective action management units. Th Regional Administrator will specify in the permit closure requirements for any corrective action management unit, in consideration of the following factors:

(i) Unit characteristics;

(ii) Volume of wastes which will remain after closure;

(iii) Potential for releases from the unit;

(iv) Physical and chemical characteristics of the wastes;

(v) Hydrological and other relevant environmental conditions at the facility which may influence the migration of any potential releases; and

(vi) Potential for exposure of humans and environmental receptors if release were to occur from the unit.

(5) Closure requirements specified fo corrective action management units under paragraph (c)(3) of this section shall:

(i) Minimize the need for further maintenance; and

(ii) Control, minimize, or eliminate, t the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated runoff, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere.

(6) The Regional Administrator will specify in the permit post-closure requirements for any corrective action management unit, as necessary to protect human health and the environment, including monitoring an maintenance activities and the frequency with which they will be performed to ensure the integrity of th

cap, final cover, or other containment system.

§ 264.552 Management of non-hazardous solid wastes.

(a) Treatment, storage and disposal of non-hazardous solid wastes pursuant to a remedy or interim measure required under this subpart shall be in accordance with applicable technical standards for solid waste management as specified in regulations promulgated pursuant to RCRA subtitle D.

(b) For any unit in which non-hazardous solid wastes will be managed pursuant to a remedy or interim measure, the Regional Administrator may specify additional design and operating standards for the unit(s), as necessary to protect human health and the environment. In determining appropriate design and operating requirements for such units, the Regional Administrator shall consider the factors specified under § 264.551(b)(2).

§§ 264.553–264.559 [Reserved]

§ 264.560 Required notices.

(a) *Notification of ground-water contamination.* If at any time the permitted discovers that hazardous constituents in ground water that may have been released from a solid waste management unit at the facility have migrated beyond the facility boundary in concentrations that exceed action levels (as defined under § 264.521), the permittee shall, within fifteen days of discovery, provide written notice to the Regional Administrator and any person who owns or resides on the land which overlies the contaminated ground water.

(b) *Notification of air contamination.* If at any time the permittee discovers that hazardous constituents in air that may have been released from a solid waste management unit at the facility have or are migrating to areas beyond the facility boundary in concentrations that exceed action levels (as defined under § 264.521), and that residences or other places at which continuous, long-term exposure to such constituents might occur are located within such areas, the permittee shall, within fifteen days of such discovery:

(1) Provide written notification to the Regional Administrator; and

(2) Initiate any actions that may be necessary to provide notice to all individuals who have or may have been subject to such exposure.

(c) Notification of residual contamination. If hazardous wastes or hazardous constituents in solid waste management units, or which have been released from solid waste management units, will remain in or on the land after the term of the permit has expired, the Regional Administrator may require the permittee to record, in accordance with State law, a notation in the deed to the facility property or in some other instrument which is normally examined during title search that will, in perpetuity, notify any potential purchaser of the property of the types, concentrations and locations of such hazardous wastes or hazardous constituents.

PART 265—INTERIM STATUS STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

6. The authority citation for part 265 continues to read as follows:

Authority: 42 U.S.C. 6905, 6924, and 6925.

7. In 40 CFR part 265, subpart G, it is proposed to amend § 265.112(b) by adding new paragraph (b)(8), and to amend § 265.113 by redesignating paragraphs (a)(1)(ii) as (a)(1)(iii) and (b)(1)(ii) as (b)(1)(iii), and by adding new paragraphs (a)(1)(ii) and (b)(1)(ii) to read as follows:

§ 265.112 Closure plan, amendment of plan.

* * * * *

(b) * * *

(8) Information which complies with the requirements of 40 CFR 270.14(d) for all solid waste management units at the facility.

* * * * *

§ 265.113 Closure, time allowed for closure.

* * * * *

(a) * * *

(1) * * *

(ii) Corrective action required at the unit or the facility under subpart S will delay the completion of partial or final closure; or

* * * * *

(b) * * *

(1) * * *

(ii) Corrective action required at the unit or the facility under subpart S will delay the completion of partial or final closure; or

* * * * *

PART 270—EPA ADMINISTERED PERMIT PROGRAMS: THE HAZARDOUS WASTE PERMIT PROGRAM

8. The authority citation for part 270 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912, 6925, 6927, and 6974

9. It is proposed to amend paragraph (c) of § 270.1 by adding the following introductory text immediately before the sentence which begins "The denial of a permit for the active life * * *," as follows:

§ 270.1 Purpose and scope of these regulations.

* * * * *

(c) * * * Owners and operators must also have permits covering any period necessary to comply with the requirements of subpart S of part 264.* * *

* * * * *

10. It is proposed to amend § 270.30(l) by adding new paragraph (l)(12) to read as follows:

§ 270.30 Conditions applicable to all permits.

* * * * *

(l) * * *

(12) *Information pertinent to corrective action requirements.* (i) If the permittee discovers additional solid waste management units or learns of releases of hazardous wastes (including hazardous constituents) from previously identified or newly discovered solid waste management units at the facility, the permittee shall submit the following information to the Director:

(A) *Identification of additional solid waste management unit(s).* Within thirty days of the receipt of information about a previously unknown and unreported solid waste management unit at the facility (as defined in 40 CFR 264.501), the permittee shall submit the following information to the Director:

(*1*) The location of the unit on the topographic map submitted as part of the part B application in accordance with 40 CFR 270.14(b)(19) or a topographic map of comparable scale which clearly indicates the location of the unit in relation to other solid waste management units at the facility.

(*2*) Designation of type of unit.

(*3*) General dimensions of the unit.

(*4*) When the unit was operated.

(*5*) Specification of all wastes that have been managed in the unit, if available.

(*6*) All available information pertaining to any release of hazardous wastes (including hazardous constituents) from the unit.

(*B*) Sampling and analysis data. The Director may require the permittee to perform sampling and analysis of ground water (which may involve the installation of wells), soils, surface water, or air, as necessary to determine whether a release(s) from such unit(s)

has occurred, is likely to have occurred, or will likely occur.

(C) *Releases of hazardous waste.* If the permittee discovers a release of hazardous wastes (including hazardous constituents) from a solid waste management unit at the facility that may pose a threat to human health and the environment, the permittee shall, within twenty days of the discovery, submit the following information to the Director:

(*1*) Identification of the solid waste management unit(s) from which the release has occurred, to include the type of unit, and location of the unit clearly indicated on a facility map; and

(*2*) Any other information currently available concerning the release, including potential exposure pathways, controls already imposed to address the release, and any action planned for further cleanup.

(ii) Based upon information supplied under (A), (B), or (C) above the Director may, as necessary, require further investigations or corrective measures in accordance with the standards for corrective action specified in 40 CFR subpart S. Such additional activities shall, if necessary, be specified by modifying an existing schedule of compliance according to § 270.34(c), or by initiating a permit modification according to § 270.41.

* * * * *

11. Section 270.33 is amended by adding the following sentence at the end of paragraph (a) to read as follows:

§ 270.33 Schedules of Compliance

(a) * * * Schedules of compliance for corrective action are governed solely by § 270.34.

* * * * *

12. * * * It is proposed to amend 40 CFR part 270, subpart C, by adding new § 270.34 to read as follows:

§ 270.34 Schedules of compliances for corrective action.

Schedules of compliance for corrective action are governed by this section and not § 270.33.

(a) The Director may include a schedule of compliance in the permit for purposes of specifying the terms and conditions necessary for the permittee to comply with the requirements of subpart S of part 264. Permit schedules of compliance issued under this section shall contain terms and conditions deemed by the Director to be necessary to protect human health and the environment.

(b) The permittee shall adhere to the schedules specified in the permit. If at any time the permittee determines that schedules cannot be met, the permittee shall, within 15 days of such determination, notify the Director and submit a request for a permit modification under § 270.42, with an explanation of why the current schedule cannot be met.

(c) The Director may modify the permit to include conditions in the schedule of compliance as necessary to comply with the requirements of subpart S of part 264. The following procedures will be followed unless the Director determines instead that it is appropriate to modify the permit pursuant to § 270.41(a)(5)(ix):

(1) The Director will notify the permittee in writing of the proposed modification. Such notice will:

(i) Describe the exact change(s) to be made to the permit conditions;

(ii) Provide an explanation of why the modification is needed; and

(iii) Provide notification of the date by which comments on the proposed modification must be received. Such date will not be less than twenty days from the date the notice of proposed modification is received by the permittee, or after the public notice is published under § 270.34(c)(2);

(iv) Provide notification that supporting documentation or data may be available for inspection at the Regional or State office; and

(v) Include the name and address of an Agency contact to whom comments may be sent.

(2) The Director shall:

(i) Publish a notice of the proposed modification in a newspaper distributed in the locality of the facility, which includes notice of items (1)(i)–(v);

(ii) Mail a notice of the proposed modification to all persons on the facility mailing list maintained according to 40 CFR 124.10(c)(1)(viii). Such notice will include items (1)(i)–(v), and shall be mailed concurrently with notice to the permittee;

(iii) For facilities which have established an information repository pursuant to § 270.36, the Director shall place a notification of the proposed modification, including items (1)(i)–(v), in the information repository concurrently with actions taken under (i)–(ii).

(3) If the Director receives no written comment on the proposed modification, the modification will become effective five days after the close of the comment period; the Director will promptly notify the permittee and individuals on the facility mailing list in writing that the modification has become effective, and will place a copy of the modified permit in the information repository if a repository is maintained for the facility.

(4) If the Director receives written comment on the proposed modification, the Director shall make a final determination concerning the modification within thirty days after the end of the comment period if practicable. The Director shall then:

(i) Notify the permittee in writing of the final decision. Such notification shall:

(A) Indicate the effective date of the modification, which shall be no later than fifteen days after the date of notification of the final modification decision.

(B) Include an explanation of how comments were considered in developing the final modification, and

(C) Provide a copy of the final modification;

(ii) Provide notice of the final modification decision, including paragraphs (c)(4)(i)(A) and (i)(B) of this section, in a newspaper of local distribution in the vicinity of the facility; and

(iii) Place a copy of items (i)(A)–(i)(C) in the information repository for the facility if such a repository is maintained.

(5) Modifications initiated and finalized by the Director using procedures in § 270.34(c) are not subject to administrative appeal.

* * * * *

B. It is proposed to amend 40 CFR part 270, subpart C, by adding new

§ 270.36 Information repository.

(a) At any time during conduct of investigations or other activities required under part 264, subpart S, the Director may require the permittee to establish and maintain an information repository for the purpose of making accessible to interested parties documents, reports and other public information developed pursuant to investigations and activities required under part 264, subpart S.

(b) The information repository shall contain all documents, reports, data and other information which the Director deems relevant to public understanding of the activities, findings and plans for such corrective action initiatives.

(c) The information repository shall, when feasible, be located within reasonable distance of the facility, or if not feasible, at the facility. The repository shall be accessible to the public during reasonable hours, as required by the Director.

(d) In the permit schedule of compliance, the Director shall specify requirements for informing the public about the information repository. At a minimum, written notice about the information repository shall be given to

all individuals on the facility mailing list.

(e) Information regarding procedures for submission of comments shall be made available at the repository.

* * * * *

14. It is proposed to amend § 270.41 by revising the introductory text and by adding new paragraph (a)(5)(ix) to read as follows:

§ 270.41 Modification or revocation and reissuance of permits.

When the Director receives any information (for example, inspects the facility, receives information submitted by the permittee as required in the permit (see § 270.30), receives a request for modification or revocation and reissuance under § 124.5, or conducts a review of the permit file) he or she may determine whether one or more of the causes listed in paragraphs (a) and (b) of this section for modification, or revocation and reissuance or both exist. If cause exists, the Director may modify or revoke and reissue the permit accordingly, subject to the limitations of paragraph (c) of this section, and may request an updated application if necessary. When a permit is modified, only the conditions subject to modification are reopened. If a permit is revoked and reissued, the entire permit is reopened and subject to revision and the permit is reissued for a new term. (See 40 CFR 124.5(c)(2).) If cause does not exist under this section, the Director shall not modify or revoke and reissue the permit, except on request of the permittee or in accordance with § 270.34(c). If a permit modification is requested by the permittee, the Director shall approve or deny the request according to the procedures of 40 CFR 270.42. The Director may also modify the permit schedule of compliance for corrective action under the procedures of § 270.34(c). Otherwise, a draft permit must be prepared and other procedures in part 124 (or procedures of an approved State program) followed.

(a) * * *

(5) * * *

(ix) The Director determines good cause exists for modification of the permit for the purposes of compliance with subpart S of part 264.

* * * * *

15. It is proposed to revise paragraphs (b)(3)(i) and (c)(3)(vii) of § 270.60 as follows:

§ 270.60 Permits by rule.

* * * * *

(b) * * *

(3) * * *

(i) Complies with 40 CFR subpart S; and

* * * * *

(c) * * *

(3) * * *

(vii) for NPDES permits issued after November 8, 1984, 40 CFR subpart S.

* * * * *

PART 271—REQUIREMENTS FOR AUTHORIZATION OF STATE HAZARDOUS WASTE PROGRAMS

16. The authority citation for part 271 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), and 6926.

17. It is proposed to amend § 271.1(j) by adding the following entry in Table 1 in chronological order by date of publication:

§ 271.1 [Amended]

TABLE 1—REGULATIONS IMPLEMENTING THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984

Date	Title of Regulation
* *	* * *
July 27, 1990	Corrective Action for Solid Waste Management U[illegible]
* *	* * *

[FR Doc. 90-16737 Filed 7-26-90; 8:45 am]

BILLING CODE 6560-50-M

BNA

Journal

CONGRESS

Senate Bills And Resolutions Introduced

S 2936, July 30, to amend the Hazardous Materials Transportation Act to authorize appropriations for FY's 1990, 1991, and 1992 (Exon) to Commerce.

S 2892, July 24, to amend the Solid Waste Disposal Act to provide management standards and recycling requirements for spent lead-acid batteries (Wirth and Heinz) to Environment.

House Bills And Resolutions Introduced

HR 5390, July 27, to prevent and control infestations of the coastal inland waters of the United States by zebra mussel and other non-indigenous aquatic nuisance species (Hertel and others) to Merchant Marine.

HR 5363, July 25, to establish an organizational unit within the State Department to develop and implement programs that address health and environmental problems along the border of the United States and Mexico (Coleman and Bustamante) jointly to Energy and Foreign Affairs.

HR 5372, July 25, to amend the Toxic Substances Control Act to reduce the levels of lead in the environment (Luken and Sikorski) to Energy.

HR 5359, July 24, to amend the Solid Waste Disposal Act to provide management standards and recycling requirements for spend lead-acid batteries (Horres and others) to Energy and Commerce.

EXECUTIVE BRANCH

Interior

The Office of Surface Mining announced July 25 the approval of a proposed amendment to the Wyoming permanent regulatory program under the Surface Mining Control and Reclamation Act (55 FR 30221). For further information contact E.E. Filer, Director, OSM Casper Field Office, Federal Building, 100 E. B St., Room 2128, Casper, Wyo. 82601-1918; (307) 261-5776.

APPENDIX C

COPY OF DAILY FIELD LOG BOOKS

June 24, 1992

8:15 am - Called Harold M. at ES:E to arrange meeting to pick up key with HUSE. Meeting was scheduled for 9:30 am.

9:35 am - John D & myself arrive at ES-E to meet w/ Harold. He was not in!

Janice Mendoza gave us the key, & said he would meet us on site at approx 10:00.

9:55 am: Stopped by Thyssen Sun this office to inform him about the project. He said he had a few items we might be able to use from inside down underneath. He also gave us an additional key to open the gate at the HUSE. He said we would return them when

completed for the day.

10:15 Am - John & I arrive at HOSF.

- We inspected the Emp. tank & found approx 5 transformers inside the outer part of tank, and an additional 10-15 transformers were located just south of the tank, approx 5-10 feet.

- Janice said he would speak to T. Smith about removing the transformers.

10:45 - We left the site.

11:00 - Arrive at Chem lab. John & I introduced ourself to Jeff Hamlin & mister ? his employees. We informed them of our intentions to

11:20 - Dropped of Janice M. at officers club.

11:35 - Went by EG-E to drop off HOSE key w/ someone for Janice, Noone there!

11:45 - Found Janice at Officers Club & returned the key to him.

12:00 - Departed Post to U.

Dave

June 4, 1992

June 22, 1992 Monday

David Bollschweiler, George Arguedas, & John Dupuy comprise ASI's field team.

0700: Prepping for field work, loading supplies. Clear, warm, & slight breeze from East.

10:35: Pick up HWSF gate key from Javier Mendoza

10:49 Enter HWSF, set up decon pad for our activities. Javier Mendoza stopped by to view progress & left @ 11:03.

Tailgate safety briefing: John Dupuy

10:55 Collect sampler from tank residual materials & free water in tank. Tank contains approx. 2 inches of rain water.

11:35 Sampling complete; filling out sample ID Labels & C of C forms

SAMPLE ID	SAMPLED MATERIAL
ET 1	residual material
ET 2	free water in tank
ET 3	background soil sample
ET 4	trip blank

We are leaving two (2) DOT-Closed Top barrels on-site. Personnel & equipment is decomned; sampler logged-in

12:30 Off-site (HWSF); went to HQ & turned in gate key to Javier Mendoza. D Bollschweiler & G Arguedas will secure for supplies in town this afternoon

John R Dupuy
June 22, 1992

June 29, 1992 Monday

David Bollschweiler, George Espinosa, and Tony Taylor comprise DOE's field team.

10:15 George picked up Eng from Javier Mendoza, ESE.

10:20 Tony T. went to Turnaround Services office to ask if we had a place we could store our equipment.

He said we could use the small building next to the west gate.

10:35 We arrived at the site. Dave set up decon area as described in Closure Plan.

10:50 Dave began cleaning the inside tank w/ a shovel.

[illegible] extension cord to use the steam cleaner and vacuum.

Photos (2) Dave cleaning tank

11:25 Dave B. continues to clean Evap tank of salt material.

11:30 Dave tested the tank on the decon platform and deconed himself and the decon pools.

We checked the emergency shower & eye wash to insure that they were properly.

The eye wash functioned okay, but the shower had a few leaks in the piping. Would

George attached tank at site with extension cord

11:45 am: George and Dave Begin Cleaning the tank again

11:50 am Started to load liquid into drums. Drum was placed on plastic mat outside the Fuel tank.

Used 5 gallon bucket to remove solid material from tank.

1:00 pm - Decon water was left in decon pool on concrete pad.

All equipment ready for start of decon.

1:20 pm - Left HWSF

11:50 pm Thomas Smith & 4 Individuals from Environmental Safety Group (in constant for the HWSF) arrive at site.

12:10 pm: Dave started the tank & decon of the assistance at George.

12:35 pm Dave & George gather the supplies and put them in the storage Bldg

June 29 1992

June 30 1990

835 am - Arrive at ES-E and picked up key from Harris in Off.

905 am - Arrive at HWSF and began set up for day's activity

- Dave, George and Tony write up the field crew.

- Dave and George & Tony collect a tailgate meeting to go over the procedures as written in the closure plan. The safety plan was reviewed by all team members.

temp approx 90°F
wind 0-5 N-S

9:35 - George ordered the tank pit begin to use steam cleaner to decon the tank. Dave B.

9:50 am sides & tank bottom were steam cleaned and water was pumped to the East end of the tank.

- The epoxy coating on the bottom of the tank was not intact completely. Spots of peeling and cracking.

Dave B. used small 1-2 gallon bucket to gather water from the sump area and put it in the decon rinsate drum.

10:00 1/2 Complete cleaning tank.

Began to use vacuum to collect water from tank.

type: Craftsman
3.5 hp 16 gallon
wet/dry vac

liquid from the wet/dry vac was then dumped into the bung type drum.

10:30am Continue to vacuum the tank rinsate solution

10:40am All liquids ~~[illegible]~~ vacuumed from tank. George & Dave Decon and will take a break.

10:45 - Dave & George started going down the tank again to complete Decon #1.

George started steam cleaning Decon #2

11:50am finished Decon #2

Day 2 completed pingle

and put it in drum.

11:20am Start Decon #3 w/ steam cleaner

11:30 Complete Decon #3

Dave & George continue to collect rinsate water.

→ winds increasing to approx 10-15 mph

- decided to complete this cleaning on-2 area site to avoid any splash potential. This will also allow time for the tank to dry.

11:40 George & Dave finished the tank and went through decon procedures as previously done.

July 1 1986

11:45 Equipment was put away. All equipment used inside the trailer was left inside the trailer. Other equipment was put in storage building.

12:00 p.m. - left HWSF & locked gate

12:15 p.m. - Returned key to ES-E, Harrison Orr.

12:20 left work

June 30 1986

9:10 a.m. Picked up key from Harrison Orr, ES-E and informed him that we would produce a duplicate sample of the tank contents today for him to take to WSMR Chem Lab.

- We said okay

9:35 a.m. Arrive at HWSF

- Thurmond Smith was at the HWSF w/ a co-worker

(1) We loaded drums from the storage building to a truck.

- I informed Mr. Smith that we could not start until the truck was out of the way.

- We said they would be

8:45 Dave, George and Tony conducted a tailgate meeting to discuss the SRS Plan and relevant safety concerns.

Samples taken: SPIGOT

Potable water

#1 8:55 am
#2 9:00 am
#3 9:05 am
#4 9:08 am
#5 9:10 am

Dave B & Tony T filled all sample bottles to be used for weekly & monthly Chains for Samples

9:30 am Truck Completed loading and moved, allowing us to start operations.

9:35 am George w/ Dave entered the tank and began using the steam cleaner to decon the tank. Decon #4.

9:50 am Washdown #4 complete. Dave & George used vacuum to collect water and put it in drum.

9:55 am Washdown #5 start
10:05 Washdown #5 complete

Water collected on East end at manhole hatch and sampled from clean bucket.

Rinsate #1 10:05
#2 10:08
#3 10:10
#4 10:12
#5 10:15

Vac check

Duplicate samples taken for WSMR Chem Lab

Remote #1 10:17
#2 10:19
#3 10:20
#4 10:22
#5 10:23

10:30: George & David exited the tent on the plastic & decomed themselves in the decon pools.

* Decon water was left to evaporate. We will pick up tomorrow at next day.

All tyvex, gloves, boots etc. were removed & placed in waste drum. The vacuum pump was also placed in 55 gallon

10:45 Equipment was put away & steam cleaner loaded in to Suburban.

11:15 left HWIF

11:35 Arrive at ES-E, gave Warren an the fly and samples to WSMR Chem Lab.

12:15 pm: Leave WSMR

July 9 1992

9:30am - Road Block at corner Nike Road - unable to get on site.

July 10 1992

8:15am - Arrive at AOSF

One of our decon tubs was missing from decon pad

Both tubs had rocks in them to prevent from blowing away.

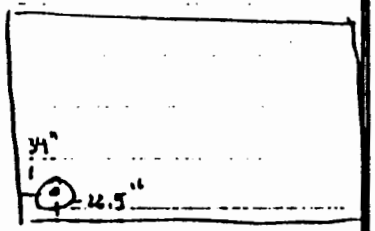
Dave George, & Tony took off around the perimeter of the site & could not find the tub.

8:30 - we held a tailgate H&S meeting. Items discussed were the hazards, ask, with concrete breaking activities.

8:40 - Decon area was set up.

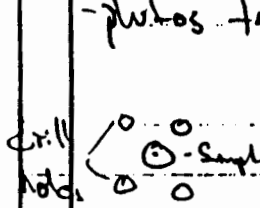
8:43 - Dave in Level C - 7?? began drilling TH-X from

at Sample location #1.



- Tank floor appears to be approx 8" in depth. Samples collected from drill remains.

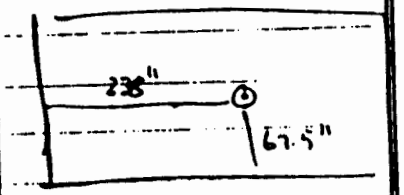
- photos taken at sample pt. & drill holes.



- Drill bit left at sample #1 pad to contain water sample #2 & #3.

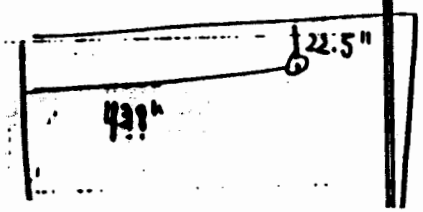
note: appear to have hit rebar while drilling drill holes at #1.

9:15am - Began drilling surrounding drill holes at sample location #2



- May have hit rebar again at approx. 8-9".

5:38 pm - Began drilling sample pt. #3



*All sample locations were selected using a random number generator (HP-10C) to obtain numbers between 0 & 1, as follows:

Random #

0 > x < 1 x # indicates which hole to take

||

↑ sample locations

these from each sector were randomly chosen by drawing from the 3 possible for each sector.

9:59 All sampling complete on #3.

Dave & George went through decon process before exiting site.

10:10 Stored all equipment on Storage Building and left the House.

Tue 10 1998

AUGUST 06, 1992

CONDUCTED TAILGATE 10:05-10:10

BEGAN DRILLING OF HOLES INTO SOUTH WALL 10:12

COMPLETED DRILLING OF 8 HOLES TO DEPTHS OF 2'-6" 10:40

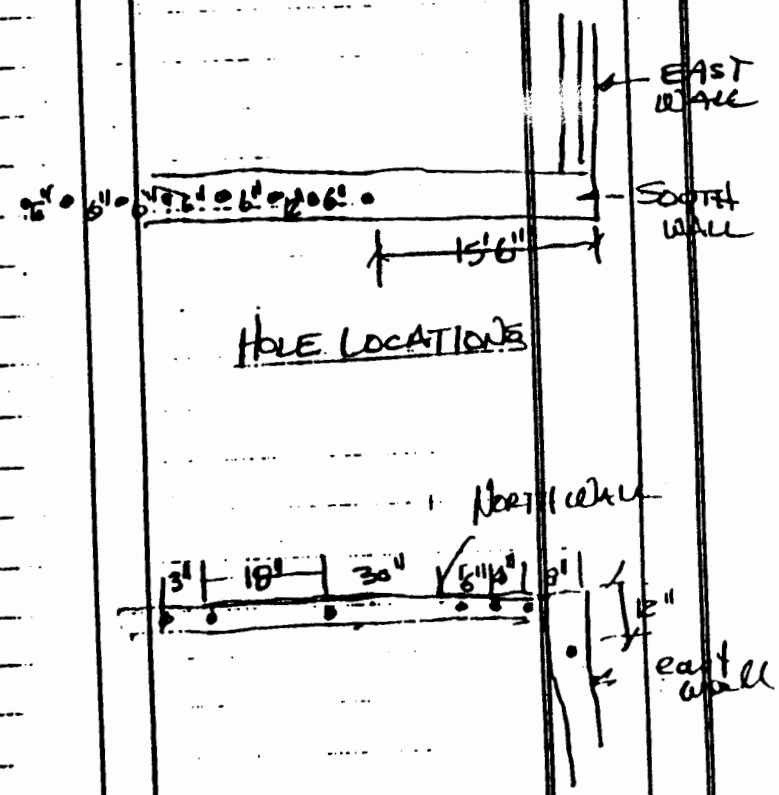
OBTAINED 500 GRAMS OF POWDERED CONCRETE (USMR-OUTTANK.S)

BEGAN DRILLING OF HOLES INTO NORTH WALL 10:44

COMPLETED DRILLING OF 7 HOLES TO DEPTHS OF 2'-6" 11:05

OBTAINED 500 GRAMS OF POWDERED CONCRET (USMR-OUTTANK.N)

TOOK 6 PHOTOGRAPHS



Beam make Hole then
Casing with Hole
At Drill Locations.
Deep Auger
Took Soil Samples
Hole #1 (cont)
0-6" @ 10:00
30-36" @ 10:00

Hole #2 (cont)
0-6" at 11:2 am
30-36" at 11:3 am

Hole #3 (cont)
0-6" at 12:05 pm
30-36" (cont) 12:15 pm

7:00 am Large Diam
mixing the Bentonite
plan was to cement
the PVC pipe place

- Put the [illegible] PVC [illegible]
in hole [illegible]

12:35 pm - Hole #1 (cont) PVC
was cemented and placed
to dry

12:45 - Hole #2 (cont) PVC
was cemented and
placed to dry

12:50 - Hole #3 (cont) PVC
was cemented in drill hole
and placed to dry

- Cage #1 cleaned the
tank. All debris was
placed in the tank.

- 1:20 pm - 1' 2 inch of soil
was sampled (Tank contents #1)
1:30 pm - 2' 4 in of soil
was sample (Tank contents #2)

1:40pm Decon Drum #1 sampled
1:50pm Decon Drum #2 sampled

2:30pm - Left site to deliver samples to WESTECH labs in El Paso Tx.

4:00pm - Arrive samples & drop all at WESTECH (see COC).

4:30pm - Left for A-1 Rental return Jackhammer to A-1 Rental

2/9/93 Hazardous Waste Storage Facility.

8:30 AM.

Weather cloudy, 50°F raining off on on.

PMR is on site to cut the wall of the Evap. tank flush with the concrete pad.

ASI Personnel Joel Gibbon George

PMR J.D.

ASI is going to sample in the three existing bore holes

Wes-Tech
1.915-592-3591
534-8535

left blank

2/10/93

Arrived at the Evaporator tank at 8:30 A.M. with PMR J.D.

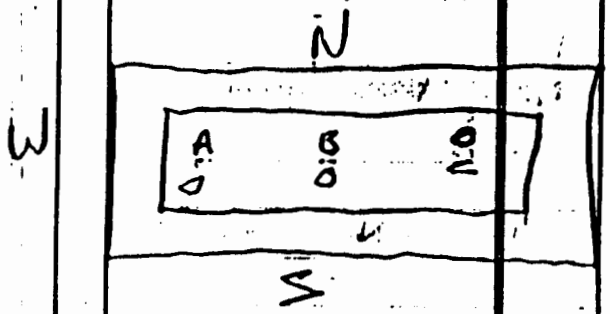
PMR used a cutting torch to cut through the wire mesh on top of the tank.

12:30 more PMR boys showed up with DINO concrete jack hammers.

Finished at 3:30 P.M.

2/11/93
Arrived at 8:30 A.M.
Worked until 3:30 P.M.

Sampling Appendix II



1 A: The starting depth of the core hole was 42"-50" / 9:15 A.M.

2 A: 72"-81" 9:25 A.M. Soil is sandy Tan in color

1 B The starting depth of the core was 35"-42" 9:40

At 46" He checks hard soil that there not the to core through so we only got one sample at B site

1 C The starting depth is 43"-51" 10:15 A.M.

2 C 72"-78" at 10:30 A.M. Soil sandy Tan in color

2 B The second sample was attained after the pounded through check with a piece of rebar. This was taken from 72"-80" 1:45 P.M.

Harrison + Kolle visited the site at 1:30 P.M.

Completed concrete sealing 3:00 P.M. Left site 3:30 P.M

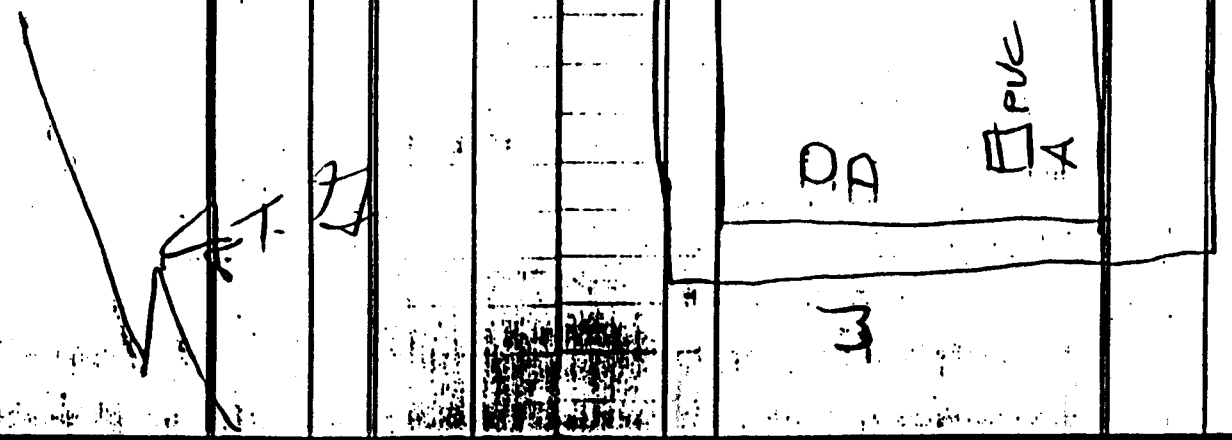
2/12/93

A missle mission kept ASI + PHR off of the HWSF until 1:00 P.M.

cut three new four inch holes and surface samples

0-6" inches below the concrete

Sample here taken at approximately equal distances



Concrete floor is 9" thick at location D

Keys to Thurmond Smith at 2:30 P.M.

2/22 White Sands Missile Range 8:00 A.M. A roadblock near the Navy Desert Slip. The roadblock lasted until 12:10 p.m.

At 12:30 p.m. installed the three temporary core holes with 2 inch PVC pipe.

The 2 inch PVC pipe was duct taped into place as a temporary fix.

Three inch PVC pipe will be grouted into place next week.

Left the site returned

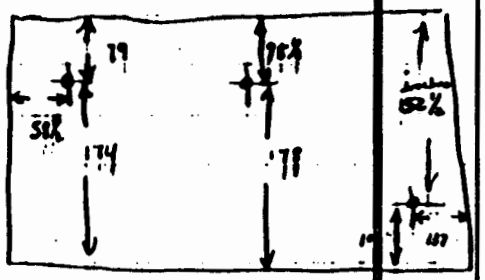
2/14/93

2/22/93 Monday.

arrived at 1:30 PM at Thurman Smith office for keys

arrived at 2:00 PM. at HWSF
clean 4 in. pvc pipe and put caps on both, new holes are capped with 3 inch pvc and capped and vent. was [illegible] stapled stakes to mate a unit

New holes



PVC used 30 inches

finish job at 3:15 PM.

route to "C" station to finish PMW Sampler project

4:00 PM done to Thurman Smith office and return keys to [illegible]

[illegible]

2/24/93 Wednesday

arrival at 7:30 AM at Thurman Smith office.

arrived at 8:05 AM – HWSF – load film in camera – 15 photograph taken different angles used PENTAX K1000 film in camera

9:00 – finish photographs

[illegible]

APPENDIX D

USGS SITE GROUNDWATER REPORT

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

WATER BALANCE AND GEOHYDROLOGY OF THE HAZARDOUS-WASTE DISPOSAL FACILITY, WHITE SANDS MISSILE RANGE, OTERO COUNTY, NEW MEXICO

By Cynthia G. Abeyta

Administrative Report

Prepared for the
U.S. DEPARTMENT OF THE ARMY,
WHITE SANDS MISSILE RANGE

Albuquerque, New Mexico

1992

U.S. DEPARTMENT OF THE INTERIOR
MANUEL LUJAN, JR., *Secretary*
U.S. GEOLOGICAL SURVEY
Dallas L. Peck, *Director*

ADMINISTRATIVE REPORT

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
acre	0.004047	square kilometer
cubic-foot per day	0.02832	cubic-meter per day
foot	0.3048	meter
foot per mile	0.1894	meter per kilometer
foot squared per day	0.09290	meter squared per day
gallon	3.785	liter
gallon per minute	0.00006309	cubic meter per second
gallon per minute per foot	0.2070	liter per second per meter
inch	25.40	millimeter
mile	1.609	kilometer
ounce, fluid	0.02957	liter
ounce, dry	28.35	gram
pint	0.4732	liter
pound	4.536	kilogram
square mile	2.590	square kilometer

$$^{\circ}F = (1.8 \times {}^{\circ}C) + 32$$
$$^{\circ}C = ({}^{\circ}F - 32)/1.8$$

Sea level: In this report, "sea level" refers to the National Geodetic Vertical Datum of 1929--a geodetic datum derived from a general adjustment of the first-order level nets of the United States and Canada, formerly called Sea Level Datum of 1929.

WATER BALANCE AND GEOHYDROLOGY OF THE HAZARDOUS WASTE DISPOSAL FACILITY, WHITE SANDS MISSILE RANGE, OTERO COUNTY, NEW MEXICO

By Cynthia G. Abeyta

ABSTRACT

The Hazardous Waste Disposal Facility on White Sands Missile Range contains a landfill operated from 1971-81 containing various types of chemical wastes. The requirement of an evaluation of geohydrologic conditions of the Hazardous Waste Disposal Facility to determine the potential for migration of hazardous wastes buried in the site's landfill, through the uppermost aquifer to nearby water-supply wells or to surface-water bodies, has led to a geohydrologic investigation of the area.

A qualitative water balance of the Hazardous Waste Disposal Facility shows potential evaporation is more than five times the precipitation, which is the source of natural recharge to ground water at the facility. Most of the precipitation is consumed by evaporation except during periods of substantial precipitation. When precipitation is greater than potential evaporation, recharge to ground water might occur. The long-term rate of recharge at the facility was estimated to be 0.019 inch per year. This estimate is based on the assumption that the movement of soil water is strictly vertical. The heterogeneity of the bolson-fill deposits results in some lateral flow of water through the unsaturated zone, which affects the estimated recharge rate.

The bolson-fill deposits underlying the Hazardous Waste Disposal Facility consist of interbedded clay, silt, sand, and gravel. Depth to water at the facility is 230 feet below land surface; the water table slopes to the southwest at about 1 foot per mile in the area of the facility and at about 7 feet per mile northwest of the facility. There are no streams, ponds, or

lakes in the area; the nearest production well yielding potable wat miles west of the study area.

Transmissivity values obtained from an aquifer test conducted on th ranged from 1,000 to 1,300 feet squared per day. The specific capacity aquifer in the area tested was 2.10 gallons per minute per foot of draw Estimated values of hydraulic conductivity for the assumed water-produci zone ranged from 12.5 to 16.3 feet per day.

The ground water in the area typically contains concentrations of dissolved solids ranging from 10,000 to 35,000 milligrams per liter and water is considered very saline. Chemical analyses indicated concentra of 110-160 micrograms per liter of manganese, 510-1,200 micrograms per of zinc, and 0.30-1.30 micrograms per liter of toluene in water from we upgradient from the landfill. The concentration of lindane in water fr test well downgradient from the landfill was at the detection limit of microgram per liter. The molecular formula, molecular weight, wat solubility, and health effects for a number of the chemical compounds b at the landfill are presented.

INTRODUCTION

The U.S. Department of the Army is evaluating geohydrologic conditions of the Hazardous Waste Disposal Facility on the White Sands Missile Range, New Mexico, to determine the potential for migration of hazardous wastes, which were buried in the landfill, through the uppermost aquifer to nearby water-supply wells or to surface water. In 1988, the U.S. Geological Survey, in cooperation with the U.S. Army, initiated a study in the White Sands Missile Range, Hazardous Waste Disposal Facility area (fig. 1) to identify geohydrologic conditions of the facility. Results of the study will be used by the U.S. Army to aid in determining ground-water-monitoring requirements at the facility as specified in 40 CFR Part 265.90C (U.S. Environmental Protection Agency, 1988b).

Purpose and Scope

This report presents the results of a 1-year study to identify geohydrologic conditions at and in the vicinity of the Hazardous Waste Disposal Facility, White Sands Missile Range. Specific objectives were to: (1) compile information on the characteristics of the chemical wastes buried in the landfill; (2) evaluate the water balance of precipitation, evaporation, surface-water inflow and outflow, and ground-water recharge and discharge; (3) describe geohydrologic characteristics of the unsaturated zone and the shallow aquifer; and (4) describe the quality of ground water in the vicinity of the facility.

The geohydrology of the Hazardous Waste Disposal Facility was characterized on the basis of existing data and new data collected during water years 1988 and 1989 (September 1988 through September 1989). Aquifer-test data and ground-water-quality data were obtained from four test wells; test well TW-4 was installed during this study (figs. 1 and 2). Water-quality data for wells at the facility were obtained during water year 1989.

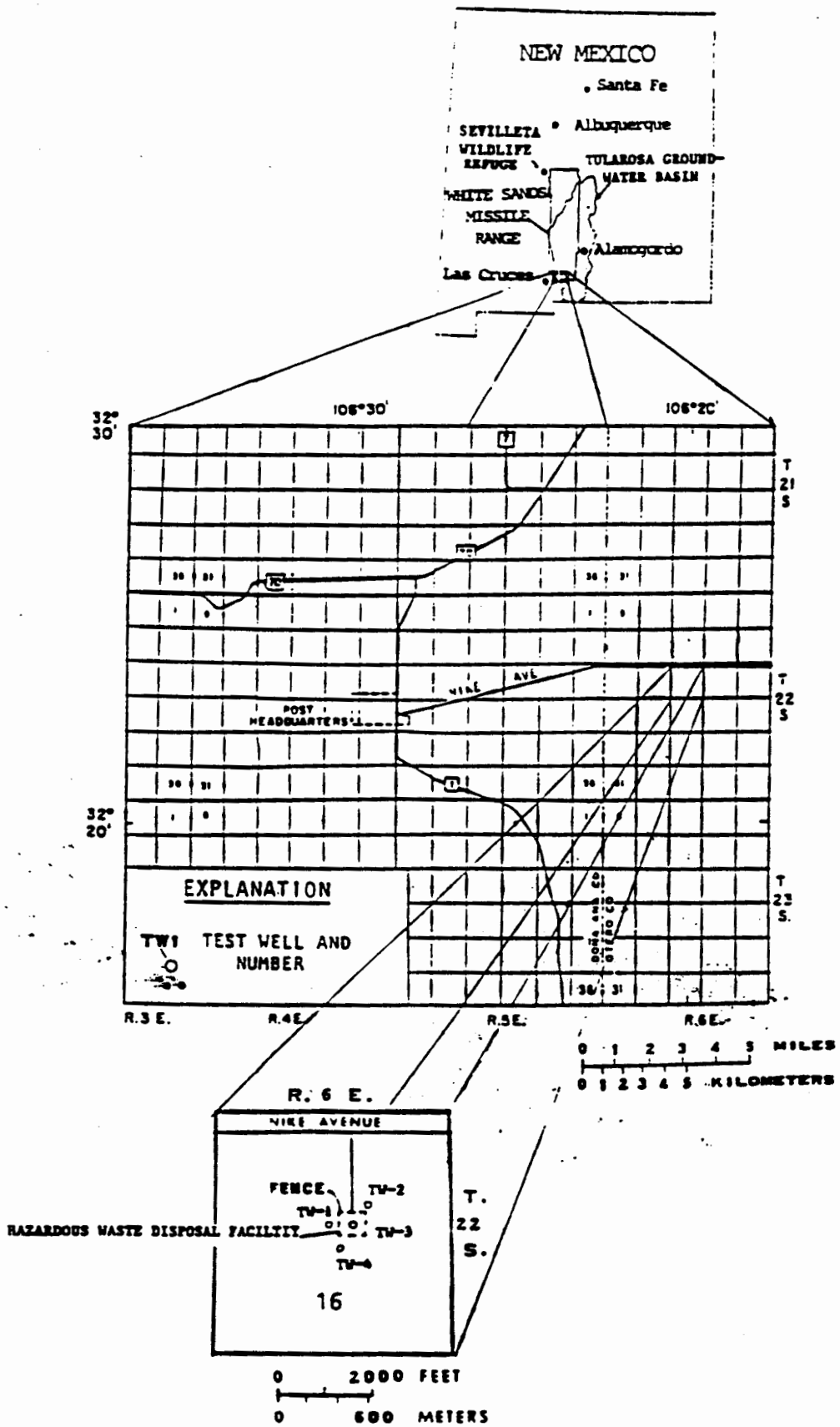


Figure 1.—Location of the Hazardous Waste Disposal Facility.

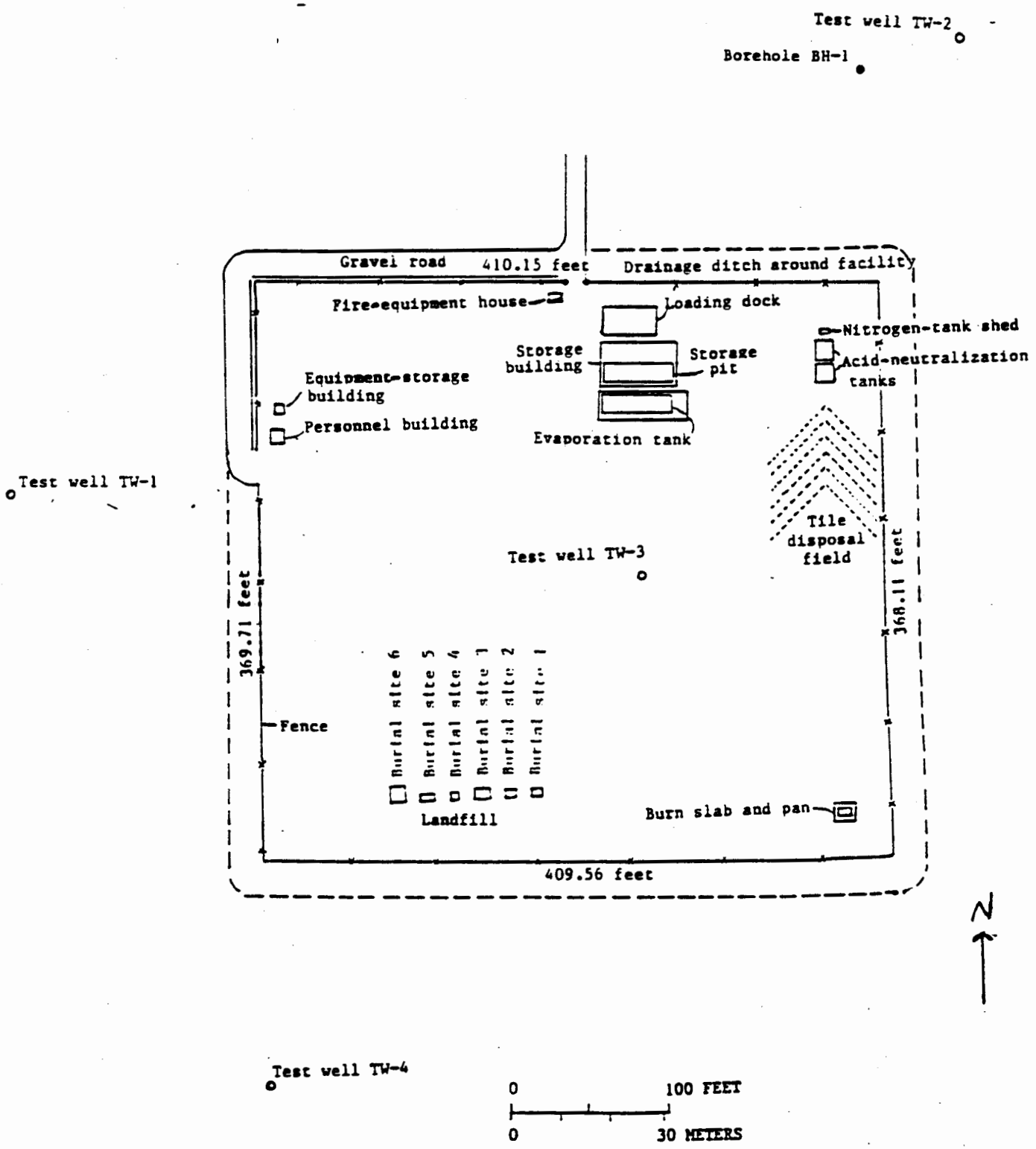


Figure 2.—Location of the landfill, test wells, and borehole at the Hazardous Waste Disposal Facility.

Borehole BH-1 was augured and soil samples were collected and ana' -z estimate recharge to the unsaturated zone (fig. 2). Recharge was estimat using the chloride mass-balance method (Mattick and others, 1987). Aquif tests of the shallow aquifer were conducted to determine aquifer characteristics.

Description of the Study Area

The study area is the Hazardous Waste Disposal Facility located at t southern end of White Sands Missile Range, Otero County, New Mexico (fig. The White Sands Missile Range, an area of about 3,400 square miles in so central New Mexico, is in the southern part of the Tularosa ground-water basin. Initially constructed in June 1945, the White Sands Missile Rang includes lands and facilities owned and operated by the U.S. Department Army, such as office buildings, base housing units, recreational facilit and research and testing facilities operated and maintained by var government and private laboratories. The basic mission of the range is support the development and testing of weapons systems. The White Sand Missile Range includes a large complex of test ranges, launch sites, imp areas, and instrumentation sites.

The Hazardous Waste Disposal Facility is about 8.5 miles east of tl Headquarters, 35 miles northeast of Las Cruces, and 45 miles southwest Alamogordo. Las Cruces and Alamogordo are the largest population cente the region.

The Hazardous Waste Disposal Facility consists of a plot about 370 by 410 feet (fig. 2). Facilities are available for handling various ty hazardous wastes including a landfill with six burial sites, a burn sla pan, evaporation tank, building for temporary storage of hazardous wast

a storage pit, acid neutralization tanks, and a tile disposal field. The landfill, for disposal of containerized chemical wastes, has been in use since the first chemical-waste burial occurred in April 1972. Additional burials occurred in June 1972, February 1974 and two burials in April 1976. The last burial was in October 1981.

The landfill was inactive from October 1981 to April 1989, when burial site 6 was excavated and the contents removed. In 1990, the remaining five burial sites were excavated and the contents removed. Presently (1992), no chemical wastes are buried at the landfill.

Well-Numbering System

The well-numbering system in this report uses the public-land survey method of township, range, and section location (fig. 3). The well number is divided into four segments divided by periods. The first segment indicates the township south of the New Mexico base line; the second indicates the range east of the New Mexico Principal Meridian; the third indicates the section within which the well is located. The fourth segment of the number indicates the 160-, 40-, and 10-acre tracts, respectively, in which the well is located. If two or more wells are within the same tract, consecutive letters, beginning with A, are added as suffixes to succeeding wells in the same tract.

Acknowledgments

The author acknowledges the assistance received from Fred Chavez of the White Sands Missile Range Environmental Department in facilitating equipment installation and providing valuable information about the Hazardous Waste Disposal Facility. George Basabilvazo of the U.S. Geological Survey, Las Cruces office, provided lithologic descriptions for soil samples collected at borehole BH-1.

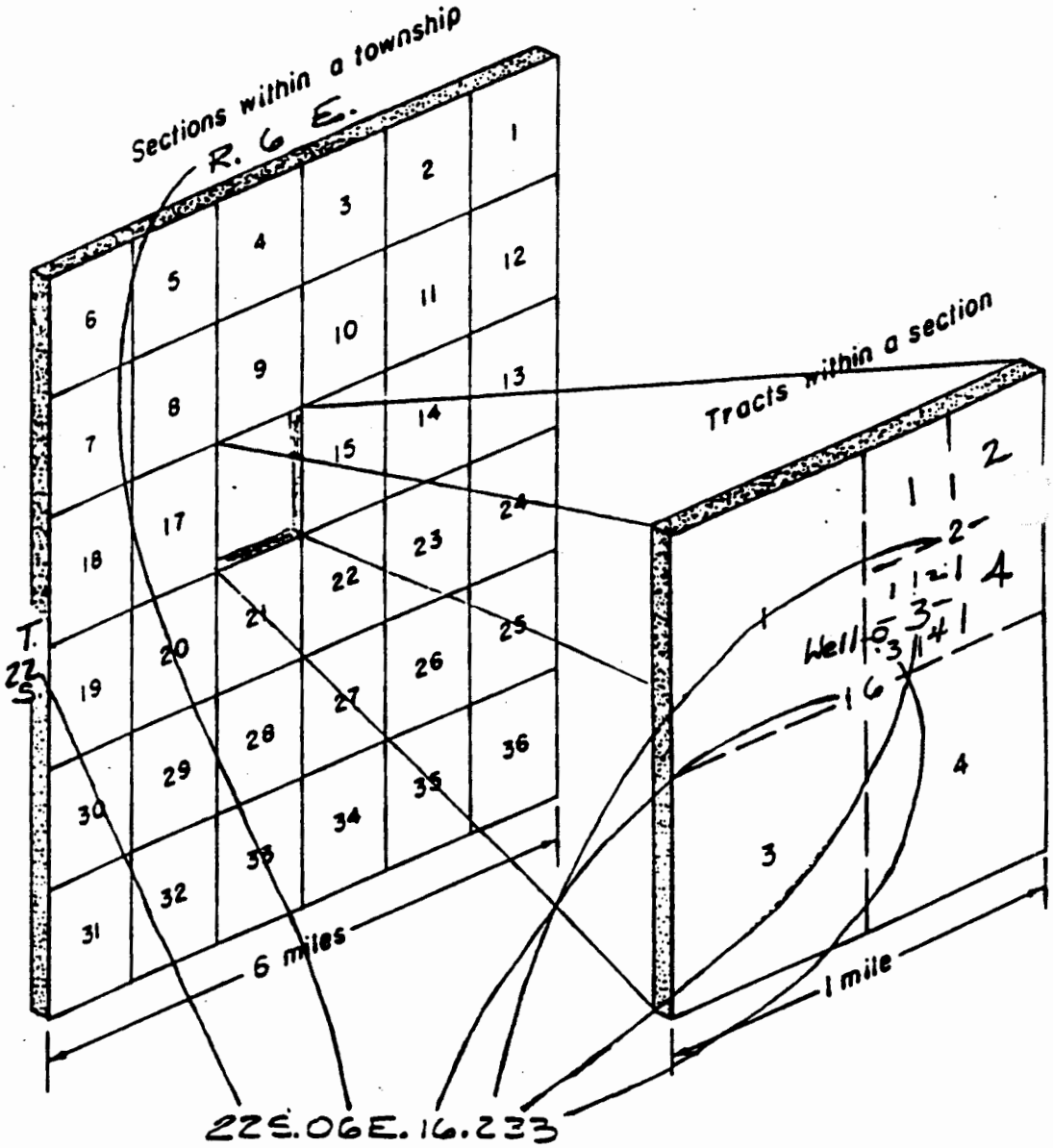


Figure 3.--Well-numbering system.

CHEMICAL WASTES BURIED AT THE LANDFILL

From April 1972 to October 1981, about 250 different types of identified chemical compounds, 126 unknown chemical compounds, and other wastes such as paper, broken glass, and plastic debris were buried at the landfill (table 1). The chemical wastes were in solid or liquid form and were individually containerized in plastic, metal, glass, cardboard, or paper. The chemical wastes and debris were further encapsulated in steel or polyvinylchloride (PVC) vessels in which the individual containers were separated by an inert absorbent or cushion material. The ends of the vessels were sealed with caps and sealant. Burial sites 1 through 5 contained the steel vessels. The PVC vessels were further contained in 55- or 85-gallon steel drums. The void spaces within each drum were filled with concrete and each drum was sealed with a leak-proof lid. Burial site 6 contained the drums. The steel vessels and drums were placed in excavations with approximate dimensions of 10 feet x 10 feet x 10 feet. The spacing between each of the six sites was 10 feet. Each site was marked with a concrete pad identifying the burial date, chemical compounds contained, and quantity.

When the six burial sites were excavated in April 1989 and in 1990, the contents were removed, inventoried, and screened by a contractor for White Sands Missile Range. About two-hundred and fifty different types of chemical compounds were identified (table 1). In addition, one-hundred and twenty-six chemical compounds were not identified but were screened for disposal (Harrison Orr, Environmentalist, White Sands Missile Range, oral commun., 1992) (table 1).

Table 1.--Records of chemical compounds buried in the landfill in the Hazardous Waste Disposal Facility, White Sands Missile Range

Burial site	Burial date	Chemical compound	Container	Physical state	Quantity
1	04-13-72	Aldrin, 0.5% active; 99.5% inert	plastic	solid	2 pounds
		Aldrin	plastic	solid	10 pounds
		Alpha isomer of 2-Carbomethoxy-1-methylvinyl dimethyl phosphate, 2% active; 98% inert	glass	solid	2x8 ounces
		Alpha isomer of 2-Carbomethoxy-1-methylvinyl dimethyl phosphate, 2% active; 98% inert	glass	solid	1 pound
		Aniline	plastic	liquid	10 ounces
		Azodrin	plastic	liquid	1 cup
		1,1-Bis(chlorophenyl-)-2,2,2-trichloro-ethanol, 18.5% active; 81.5% inert	glass	liquid	1 pint
		2,4-Bis(isopropylamino)-6-methyl-thio-s-triazine, 80% active; 20% inert	cardboard	solid	4 pounds
		N-Butyl-n-ethyl-α,α,α-trifluoro-2,6-dinitro-p-toluidine, 2.5% active; 97.5% inert	plastic	solid	2x8 ounces
		Calcium hydroxide, copper sulfate, charcoal, potassium alum, iodoform, flowers of sulfer, tannic acid	plastic	solid	6 ounces
		Captan, 75% active; 25% inert	plastic	solid	1 pound
		Carbophenothion, 25% active; 75% inert	plastic	solid	3 pounds
		2,4-D	plastic	liquid	3x1 quart
		2,4-D, 1%; 99% inert	plastic	solid	2 pounds
		DDT, 10% active; 90% inert	metal	solid	62x3 ounces
		DDT, 10% active; pyrophyllite 90%	metal	solid	5 pounds
		DDT, 10% active; 90% inert	metal	solid	3x4 pounds
		DDT, 50% active; 50% inert	plastic	solid	2 pounds
		3,6 Dichloro-o-anisic acid 0.1% active; 99.9% inert	plastic	--	1 pound
		1,1-Dichloro 2,2 bis(p-ethyphenylethane), 0.2% active, 2,2-dichlorovinyl dimethyl phosphate, 0.01%, 0,0 dimethyl-(2-chloro-4-nitrophenyl, 0.1% active; 99.49% inert	plastic	solid	12 ounces
		Dieldrin 5% active; 95% inert	plastic	solid	2 pounds
		Dieldrin 1.5 exclusive xylene base	plastic	liquid	1 gallon
		0,0-Diethyl 0-(2-isopropyl-4-methyl-6-pyrinidinyl)phosphorothioate(Diazinone), 50% active	plastic	solid	1x3 pounds 1x6 ounces
		Dimethamine salt of 3,6-dichloro-o-anisic acid, 49% active; 51% inert	plastic	liquid	5 ounces
		Dimethylamine salts of 2,4-dichlorophenoxy acetic acid, 1.22% active; 98.78% inert	plastic	solid	1 pound
		0,0-Dimethyl 5-[4 oxo-1,2,3,-benzotriazin-3(4H)-ylmethyl] phosphorodithioate, 50% active; 50% inert	plastic	solid	3 pounds
		0,0-Dimethyl 5-[4 oxo-1,2,3-benzotria-3(4H)-yimethyl] phosphorodithioate	plastic	solid	2 pounds

Table 1.--Records of chemical compounds buried in the landfill in the Hazardous Waste Disposal Facility, White Sands Missile Range-Continued

Burial site	Burial date	Chemical compound	Container	Physical state	Quantity
1 (continued)	04-13-72	Dimethyl ester of Tetrachloroterephtholic acid, 75%	plastic	solid	2 pounds
		Dimethyl ester of Tetrachloroterephtholic acid, 75% active; 25% inert	plastic	solid	3 pounds
		Dimethyl Phosphate of 3-hydroxy-N-methyl cis-crotomamide, 56% active; 44% inert	plastic	liquid	6 ounces
		Dimethyl Phosphate of α-methylbenzyl-3-hydroxy-cis-crotonate, 3% active	cardboard	solid	4 pounds
		Dinitro(1-methyl heptyl)phenyl crotonate, 22.5% active; Dinitro(1-methyl heptyl) phenol, 2.5%; 75% inert	plastic	solid	1 pound
		Isoparaffinic Petroleum Hydrocarbons	plastic	liquid	1 cup
		Kelthane 35 1,1 Bis(chlorophenyl)-2,2,2 trichloroethanol, 35% active; 65% inert	plastic	solid	4 pounds
		Lead Arsenate, 96% active; 4% inert	cardboard	solid	1x2 pounds
		Lead Arsenate	metal	solid	2x1 pound
		Lead Arsenate	plastic	solid	2 pounds
		Lead Arsenate, 95% active; 5% inert	plastic	solid	2 pounds
		Lead Arsenate, 96% active; 4% inert	metal	solid	2x1 pound 3X1/2 pound
		Lithium 2,4-Dichlorophenoxyacetate, 95% active; 5% inert	cardboard	solid	3x1 pound
		Malathion	plastic	liquid	5x1 pint
		Malathion, 25% active; 75% inert	plastic	solid	7x2 pounds
		Malathion, 19% active, DDT, 10% active, Ethylene Dichloride, 50% active; 21% inert	glass	liquid	12 ounces
		2-Methoxy-3-6-dichlorobenzoic acid dimethylamine salt, 0.1% active; 99.9% inert	plastic	solid	1 pound
		2-Methoxy-4,6-bis(isopropylamino)-s-triazine, 25% active; 75% inert	plastic	solid	1/2 pound
		Phenyl Mercuric Acid, 0.42% active; Thiram, 2.95% active; 96.63% inert	plastic	solid	6 ounces
		O,O'Pictho-p-nitrite phenol thiosphate, 46.5% active, xylene, 48.5% active; 5% inert	plastic	liquid	1 pint
		Propazine	plastic	solid	3 pounds
		Sevin: Carbaryl(1-naphthyl-N-methyl-carbonate), 5% active; 95% inert	plastic	solid	3x3 pounds
		Sevin: Carbaryl(1-naphthyl N-methyl-carbonate), 5% active; 95% inert	plastic	solid	4x1 pounds
		Toxaphene, 59% active, aromatic petroleum derivative solvent, 31.33% active; 9.67% inert	glass	liquid	1 quart
		Toxaphene, 50% active; 50% oil	plastic	liquid	1 quart
		Trifluralin(α,α,α-trifloro-2,6-dinitro-N,N-dipropyl-p-toluidine, 5% active; 95% inert	plastic	solid	1 pound

Table 1.--Records of chemical compounds buried in the landfill in the Hazardous Waste Disposal Facility, White Sands Missile Rang
Continued

Burial site	Burial date	Chemical compound	Container	Physical state	Qu
1 (continued)	04-13-72	(α,α,α-Trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine), 44.5% active; 55.5% inert	plastic	liquid	16
		(α,α,α-Trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine), 44.5% active; 55% inert, H_2O	metal	liquid	16
		Unknown 1	glass	solid	12
		Unknown 1 (water soluble)	glass	solid	4x
		Unknown 2	plastic	solid	12
		Unknown 3	plastic	solid	4
		Unknown 4	plastic	solid	2
		Unknown 5	plastic	solid	4
		Unknown 6	plastic	solid	6
		Unknown 7	plastic	solid	3/
		Unknown 8	plastic	solid	1
		Unknown 9	plastic	solid	1
		Unknown 10	plastic	solid	1
		Unknown 11	plastic	solid	2
		Unknown 12	plastic	liquid	1
		Unknown 13	plastic	solid	3
		Unknown 14	plastic	solid	1(
		Unknown 15	plastic	solid	1
		Unknown 16	plastic	liquid	1
		Unknown 17	plastic	solid	8
		Unknown 18	plastic	liquid	1
		Unknown 19	plastic	liquid	
		Unknown 20	plastic	solid	.
		Unknown 21	glass	solid	4
		Unknown 22	glass	solid	3
		Unknown 23	glass	solid	4
		Unknown 25	glass	solid	4
		Unknown 26	glass	solid	3
		Unknown 27	plastic	solid	2
		Unknown 28	plastic	solid	1
		Unknown 29	plastic	solid	1
		Unknown 29	glass	solid	2
		Unknown 30	plastic	solid	4
		Unknown 31	glass	solid	4
		Unknown 32	plastic	liquid	1
		Unknown 32	glass	liquid	1
		Unknown 34	plastic	liquid	1
		Unknown 35	plastic	liquid	1
		Unknown 36	plastic	liquid	1
		Unknown 37	plastic	liquid	1
		Unknown 38	plastic	solid	8
		Unknown 39	plastic	solid	1
		Unknown 41	plastic	liquid	1
		Unknown 42	plastic	liquid	1
		Unknown 43	plastic	solid	1

Table 1.--Records of chemical compounds buried in the landfill in the Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Burial site	Burial date	Chemical compound	Container	Physical state	Quantity
1 (continued)	04-13-72	Unknown 45	plastic	solid	1 ounce
		Unknown 46	plastic	solid	1 pound
		Unknown 47	plastic	solid	6 ounces
		Unknown 48	glass	solid	2 ounces
		Unknown 49	glass	liquid	1 cup
		Unknown 50	glass	solid	3 ounces
		Unknown 51	glass	solid	2 ounces
		Unknown 52	glass	solid	1/4 pound
		Unknown 53	glass	solid	1 ounce
		Unknown 54	glass	solid	3 ounces
		Unknown 55	glass	solid	1/4 pound
		Unknown 56	glass	solid	1/4 pound
		Unknown 57	glass	solid	6 ounces
		Unknown 58	glass	solid	1/4 pound
		Unknown 59	glass	solid	2 ounces
		Unknown 60	plastic	solid	6 ounces
		Unknown 60	plastic	solid	2x8 ounces
		Unknown 60	glass	solid	2x8 ounces
		Unknown 60	plastic	solid	4 pounds
		Unknown 61	plastic	liquid	1 pint
		Unknown 62	plastic	liquid	1 pint
		Unknown 63	plastic	solid	6 ounces
		Unknown 64	plastic	solid	8 ounces
		Unknown 65	plastic	solid	12 ounces
		Unknown 66	plastic	solid	6 ounces
		Unknown 67	plastic	solid	4 ounces
		Unknown 68	plastic	solid	4 ounces
		Unknown 69	plastic	liquid	6 ounces
		Unknown 70	plastic	solid	6 ounces
		Unknown 71	plastic	liquid	1 quart
		Unknown 72	plastic	solid	1 pound
		Unknown 73	plastic	solid	1 pound
		Unknown 74	plastic	solid	4 ounces
		Unknown 75	plastic	solid	1 pound
		Unknown 76	plastic	solid	1 pound
		Unknown 77	plastic	liquid	1 quart
		Unknown 78	plastic	solid	1 pound
		Unknown 79	plastic	solid	8 ounces
		Unknown 80	plastic	solid	6 ounces
		Unknown 81	plastic	solid	3/4 pound
		Unknown 106	glass	--	4 ounces
		Unknown 126	plastic	solid	12 ounces
		Unknown 128	glass	--	12 ounces
		Broken glass, paper, plastic debris	plastic	solid	60 pounds
		Broken glass	glass	solid	3 pounds
		Plastic bags; visqueen	plastic	solid	5 pounds
		Paper, plastic debris	plastic	solid	35 pounds

Table 1.--Records of chemical compounds buried in the landfill in the Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Burial site	Burial date	Chemical compound	Container	Physical state	Quantity
2	06-23-72	3-(α-acetonylbenzyl)-4-hydroxycoumarin	plastic	solid	8 ounces
		1,1-Bis(chlorophenyl-)-2,2,2-trichloroethanol, 35% active; 65% inert	plastic	solid	4 pounds
		Chlordane, 10% active; 90% inert	metal	solid	2x1/2 pound
		Chlordane, 10% active; 90% inert	plastic	solid	4 pounds
		Chlordane, 44% active; 56% inert	glass	solid	6 ounces
		Cyanide solution	plastic	liquid	1 quart
		Cyanide solution	plastic	liquid	9x1 gallon
		Cyanide solution in water	plastic	liquid	5x1/2 gallon
		Cyanide/H_2O solution	plastic	liquid	3x1 gallon
		2,4-D, 1% active; 99% inert	plastic	solid	3 pounds
		2,4-D, 40% active; 60% inert	metal	liquid	1 gallon
		2,4-D, 49.5% active; 50.5% inert	metal	liquid	1 quart
		Diazinon, 50% active; 50% inert	plastic	solid	2x3 pounds
		Endosulfan	paper	solid	5 pounds
		Hydrochloric Acid solution	plastic	liquid	1/2 gallon
		Malathion, 4% active; 96% inert	glass	solid	10 ounces
		Malathion, 5% active; 95% inert	plastic	solid	2 pounds
		Malathion, 5% active; 95% inert	glass	solid	1 pound
		Malathion, 25% active; 75% inert	plastic	solid	10 pounds
		Malathion, 50% active; aromatic petroleum derivative solvent, 33% active; 17% inert	glass	liquid	1 pint
		Malathion, 50% active; Xylene, 42% active; 8% inert	glass	liquid	12 ounces
		Malathion/aromatic hydrocarbon	glass	liquid	6 oun
		Nonvolatile Alkanolamine salts of 2,4-D	metal	liquid	1/2 gallon
		N-Oleyl 1,3-propylene diamine salt of 2,4-D, 61.6% active, in inert oil	plastic	liquid	1 quart
		Sulfuric Acid solution	plastic	liquid	1/2 gallon
		Unknown 84 (dilute acid)	plastic	liquid	2 gallon
		Unknown 91	metal	solid	8 ounces
		Unknown 93	glass	liquid	1 pint
		Unknown 95	plastic	liquid	10 ounces
		Unknown 96	glass	liquid	16 ounces
		Unknown 97	glass	liquid	12 ounces
		Broken glass	plastic	solid	40 pounds
		Empty glass, metal & plastic containers	-	solid	20 pounds
3	02-21-74	Aniline	glass	liquid	1 quart
		Arecoline Hydrobromide	glass	solid	50 grams
		Bay 9015	glass	liquid	2x50 millili
		Bayer Aspirin	glass	solid	3x50 grams

Table 1.--Records of chemical compounds buried in the landfill in the Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Burial site	Burial date	Chemical compound	Container	Physical state	Quantity
3 (continued)	02-21-74	1,4 Bis-trichloromethylbenzol, 15% active; 85% inert	plastic	solid	500 grams
		Bunamidine Hydrochloride	glass	solid	3 ounces
		Carbaryl insecticide (1-naphthyl-N-methyl-carbamate), 5% active	plastic	--	1 pound
		Carbaryl(1-naphthyl N-methylcarbamate), 5% active; 95% inert	plastic	solid	3 pounds
		Carbaryl(1-naphthyl N-methylcarbamate), 50% active; 50% inert	metal	solid	1/2 pound
		1-Chloronaphthalene	glass	liquid	100 grams
		Cholin Esterase Inhibitor	plastic	solid	200 grams
		Cliozanide, 4%, in H_2O	plastic	liquid	1/2 gallon
		Copper Sulfate, 2.4 gm/oz, Sodium Arsenite, 0.24 gm/oz, Picric Acid, 0.3 gm/oz, in H_2O	plastic	liquid	1 quart
		Copper(ous) Cyanide	glass	solid	1 pound
		Dieldrin, 17% active; 83% inert	plastic	solid	1 quart
		N,N Dimethyl-2,2 diphenylacetamide, 80% active	plastic	solid	2 pounds
		Heptachlor, 0.225% active; 99.775% inert	plastic	solid	1 pound
		Heptachlor, 25% active; 75% inert	metal	solid	1 pound
		Hexachloroethane	glass	solid	200 grams
		Hexachlorophene	metal	solid	1 pound
		Indodebutyric Acid, 0.00004% active; 99.99996% inert	glass	liquid	12 ounces
		Kelthane Solution	glass	liquid	1 pint
		d-Limonene	glass	liquid	6 ounces
		Linoleic Acid	glass	liquid	12 ounces
		Malathion, 50% active; 50% inert	glass	liquid	2x12 ounces
		Malathion, 57% active; 43% inert	plastic	solid/ liquid	3x1 ounce
		Nickel/Platinum-H_2O solution	glass	liquid	1/2 gallon
		5-Nitro-2-furaldehyde Semioxamazone	plastic	solid	1 pound
		Petroleum oil	glass	liquid	1 pint
		o-Phthalidicarboxaldehyde	glass	solid	25 grams
		Potassium Cyanide	glass	solid	1x1 pound 1x4 ounce
		Potassium Nickel Cyanide	plastic	solid	1 pound
		Rafoxanide 2.27%/H_2O	plastic	liquid	1 quart
		Silver Cyanide	glass	solid	2x1 pound
		Sodium Cyanide	glass	solid	4 pounds
		Sodium Cyanide	glass	solid	14 ounces
		Sodium Hydroxide	plastic	solid	3x2 pounds

Table 1.--Records of chemical compounds buried in the landfill in the Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Burial site	Burial date	Chemical compound	Container	Physical state	Quantity
3 (continued)	02-21-74	Solution of Copper Sulfate, Sodium Arsenite and Nicotine	glass	liquid	1 pint
		Streptomycin Sulfate	glass	solid	3 grams
		Tetrachlorethylene capsules	glass	liquid	12 ounces
		Thick resin	glass	liquid	50 millilite
		Toxaphene, 1% active; 99% inert	plastic	solid	5x1 pound 3x1/2 pound
		Trichlorphon/H_2O for pigs	glass	--	2x50 millili
		Zinc Cyanide	glass	solid	2x1 pound
		Unknown 127	glass	--	2 ounces
		Unknown 130	plastic	solid	8 ounces
		Unknown 131	plastic	solid	8 ounces
		Various Livestock Treatments (Drugs)	plastic	solid/liquid	9x1 ounces
		Cut up plastic bottle	plastic	solid	2 pounds
		Dirt/clay	glass	solid	1 pound
		Dry corn kernels	plastic	solid	4 ounces
		H_2O/Soap solution	metal	liquid	4 ounces
		Rust from metal drum	plastic	solid	1 pound
4	04-16-76	DDT, 75% active; 25% inert	plastic	solid	10 p
5	04-22-76	Allylacetate	glass	--	2x50
		Ammonium Hydrosulfide	glass	liquid	20 millilit
		Arsenic contaminated Chromic Acid solution	plastic	liquid	1/2 gallon
		Brucine	glass	solid	25 grams
		Chlorine solution in water	glass	liquid	3 ounces
		Chromium Oxide	glass	solid	1 pound
		Crotonaldehyde	glass	--	6 ounces
		N-Diethylaniline	glass	liquid	12 ounces
		1,5-Diphenyl-3-thiocarbohydrozide	glass	solid	20 grams
		N-Ethyl-a-naphthylamine	glass	liquid	--
		Ethyl Cyanide	glass	liquid	4 ounces
		Ethyl Salicylate	glass	liquid	1 pint
		Ethyl Salicylate	glass	liquid	30 millili
		Ferric Chloride solution pH=3-4	plastic	liquid	4x1 gallon
		Formaldehyde solution, 37.5%	glass	liquid	16 ounces
		Glycerol	glass	liquid	12 ounces
		Iron Oxide	plastic	solid	1 pound
		Isobutyraldehyde	glass	liquid	12 ounces
		Isopentyl Salicylate	glass	liquid	12 ounces
		Liquid Resin	metal	liquid	6 ounces
		Mercuric Nitrate solution	glass	liquid	10 ounces
		Mercurous Chloride	glass	solid	2 x 1/4 po
		Mercurous Perchlorate	glass	solid	4 ounces

Table 1.--Records of chemical compounds buried in the landfill in the Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Burial site	Burial date	Chemical compound	Container	Physical state	Quantity
5 (continued)	04-22-76	Mercury Chloride	plastic	solid	32 grams
		Mesityl Oxide	glass	liquid	1 quart
		Methylene Blue	glass	liquid	30 milliliters
		Nitron	glass	solid	2x10 grams
		2,4 Pentanedion	glass	liquid	5 ounces
		o-Phthalidicarboxaldehyde	glass	solid	75 grams
		Polyvinyl Alcohol	glass	solid	1/2 pound
		Polyvinyl Alcohol	glass	solid	100 grams
		Polyvinyl Alcohol	glass	solid	6 ounces
		Polyvinyl Resin	glass	solid	2x1 ounces
		Pulegone	glass	liquid	30 milliliters
		Synthetic Resin (Permount)	glass	--	4x4 ounces
		Trace Ferric Chloride contaminated diatomaceous earth	plastic	solid	50 pounds
		Unknown 120	glass	solid	2 ounces
		Unknown 124	plastic	liquid	1 gallon
		Unknown 125	plastic	liquid	1 gallon
		Unknown 129	glass	liquid	1 quart
		Unknown 130	glass	--	2 ounces
		Paper, plastic debris	plastic	solid	10 pounds
6	10-09-81	Acacia powder	glass	solid	8 ounces
		Acetamide	glass	solid	50 grams
		Acidic Copper solution	glass	liquid	11x2 ounces
		Acidic Rhodium solution	glass	liquid	1 ounce
		Alizarin Cyanone green dye	glass	solid	100 grams
		Alizarin Red	glass	solid	10 grams
		Alizarine Sodium Monosulfonate	glass	solid	6 ounces 3/4 pound
		1-Allyl-2-thiourea	glass	solid	4 ounces
		Alodine	plastic	solid	1 pound
		Aluminum Chloride	glass	solid	2x1 pound 2x1/2 pound
		Aluminum Potassium Sulfate	metal	solid	2 ounces
		Aluminum Quinolate	glass	solid	50 grams
		Aluminum Sulfate	glass	solid	4 ounces 1/2 pound
		Amberlite IR-120 ion exchange resin	glass	solid	4 ounces
		5-Amino-2-naphthalene-sulfonic acid	glass	solid	200 grams
		Ammonium Chloride	glass	solid	1 pound
		Ammonium Molybdate solution	glass	liquid	16 ounces
		Aniline	glass	solid	1/4 pound
		Arsenic Trioxide solution	glass	liquid	1/2 gallon
		Ascarite Silica	glass	solid	4 ounces

Table 1.--Records of chemical compounds buried in the landfill in the Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Burial site	Burial date	Chemical compound	Container	Physical state	Quantity
6 (continued)	10-09-81	Nitron	glass	solid	100 grams
		1-Nitronaphthalene	glass	solid	200 grams
		1-Nitroso-2-naphthol	glass	solid	1/2 pound
		5-Nitro-1-naphthylamine	glass	solid	4 ounces
		Paraformaldehyde	glass	solid	1 pound
		Parlodian strips (Nonexplosive cellulose nitrate)	glass	solid	1 ounce
		Phenol	glass	solid and liquid	16 ounces
		Phenol Red	glass	solid	2 ounces
		Phenyl Hydrazine	glass	liquid	20 milliliters
		Phenylmercuric Acetate	glass	solid	2 ounces
		Phosphate detergent	glass	solid	2 pounds
		Phosphoric Acid	glass	liquid	12 ounces
		Phosphorus Pentachloride	--	solid	1 pound
		o-Phthaldicarboxaldehyde	glass	solid	2x25 grams
		Potassium Chromate(VI)	glass	solid	2 ounces
		Potassium Dichromate	glass	solid	2x1 pound 3x2 pounds
		Potassium Hydroxide	metal	solid	8 pounds
		Potassium Iodide	glass	--	4 ounces
		Potassium Manganate(VI)	glass	solid	5 pounds
		Potassium Manganate(VI)	metal	solid	3 pounds
		Potassium Manganate(VI)	cardboard/ plastic	solid	1 pound
		Potassium Sulfide	glass	solid	1 pound
		Quinaldine	glass	liquid	4 ounces
		Salicylanilide	glass	solid	1 pound
		Salicylic Acid	plastic	solid	1 pound
		Sipon-sulfated fatty alchohol	glass	solid	5 pounds
		Sodium Cyanide	glass	solid	3/4 pound
		Solid Green Dye	glass	solid	1 pound
		Starch	glass	solid	1 pound
		Terphenyl	glass	solid	200 grams
		p-Terphenyl	glass	solid	1 pound
		Thallium Chloride	glass	solid	10 grams
		Thymol Blue	glass	solid	4x25 grams
		Trichloracetic Acid	glass	solid	30 grams
		Triphenyl Bismuth	glass	solid	200 grams
		Zinc Acetate	glass	solid	9x1 pound
		Zinc Acetate	plastic	solid	1 pound
		Zinc Chloride solution	glass	liquid	12 ounces
		Zinc Sulfate	glass	solid	1 pound
		Zinc Sulfide	glass	solid	4 ounces

Table 1.--Records of chemical compounds buried in the landfill in the Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Burial site	Burial date	Chemical compound	Container	Physical state	Quantity
6 (continued)	10-09-81	9,10-Diphenylanthracene	glass	solid	5 grams
		Diphenylbenzidine	glass	solid	2 ounces
		1,1-Diphenylhydrazine Hydrochloride	glass	--	3 ounces
		1,1-Diphenylhydrazine Hydrochloride	glass	solid	15 grams
		Diphenylmethane	glass	solid	100 grams
		2,5-Diphenyloxazole	glass	solid	25 grams
		Diphenylthiocarbozone	glass	solid	40 grams
		Diphenylthiooxazone	glass	solid	10 grams
		Dithiooxamide	glass	solid	10 grams
		Egg Albumen	cardboard	solid	5 pounds
		Fluoroanthene	glass	solid	100 grams
		Formaldehyde solution	glass	liquid	10 ounces
		Fuchsin	metal	solid	1 ounce
		Furil Dioxime	glass	solid	1 ounce
		Glycerol	glass	liquid	1 ounce
		Hydrazine Sulfate	glass	solid	1 pound
		Hydrolyzed Polyvinyl Alchohol	glass	solid	1 pound
		Hydroquinone	glass	solid	1 pound
		8-Hydroxy-7-iodo-5-quinoline Sulfonic Acid	glass	solid	8 ounces
		8-Hydroxyquinoline	glass	solid	1/4 pound
		Indigo Carmine	glass	solid	15 grams
		Lead Nitrate	glass	solid	12 ounces
		Manganese Dioxide	glass	solid	1 pound
		Mercuric Oxide	glass	solid	1/4 pound
		Mercurous Chloride	glass	solid	2x1/4 pound
		Mercurous Nitrate	--	solid	12 ounces
		Mercurous Silicofluoride	plastic	solid	4x1/4 pound
		Mercurous Silicofluoride	glass	solid	4x1/4 pound
		Mercurous Silicofluoride	plastic	solid	4 ounces
		Metanil Yellow	glass	solid	9x25 grams
		Methocel-methyl Cellulose	metal	solid	6 ounces
		N-Methyl Naphthalamine	glass	liquid	25 grams
		2-Methyl-4-nitroaniline	glass	--	200 grams
		N-Methyl-p-nitroaniline	glass	solid	--
		Methyl Sulfate	glass	solid	2x1 pound
		Methyl Violet	glass	solid	25 grams
		Methyl Violet B	glass	solid	25 grams
		Monobromobenzene	glass	liquid	2 pint
		Monomethylparamino Phenol Sulfate	glass	solid	500 grams
		Montmorillonite Clay	plastic	solid	1 ounce
		Morin	glass	solid	20 grams
		Nigrosine Black Dye	glass	solid	2x1 pound
		m-Nitroacetophenone	glass	solid	50 grams
		p-Nitroaniline	glass	solid	50 grams
		Nitrobenzene Sulfonylchloride	glass	liquid	10 ounces

Information about the molecular formula, molecular weight, water solubility, and health effects for a number of the chemical compounds buried at the landfill is summarized in Supplemental Information at the end of this report. The data were compiled from texts, handbooks, and reports listed in the reference section of this report. Most data were compiled from Budavari and others (1989). In some cases, the names of the chemical compounds liste in table 1, which were provided by the White Sands Missile Range, are abbreviated or have different or former usages of spelling for the same chemical compound. Common synonyms were applied when necessary. No data w available from the references for a number of the chemical compounds.

Table 1.--Records of chemical compounds buried in the landfill in the Hazardous Waste Disposal Facility, White Sands Missile Range--Concluded

Burial site	Burial date	Chemical compound	Container	Physical state	Quantity
6 (continued)	10-09-81	Unknown 82	glass	solid	1 ounce
		Unknown 83	glass	solid	4 ounces
		Unknown 85	glass	solid	4 ounces
		Unknown 86	glass	solid	4 ounces
		Unknown 87	glass	solid	4 ounces
		Unknown 88	glass	solid	2 ounces
		Unknown 89	glass	solid	2 ounces
		Unknown 90	glass	solid	4 ounces
		Unknown 92	glass	solid	2 ounces
		Unknown 94	glass	solid	4 ounces
		Unknown 98	glass	solid	4 ounces
		Unknown 99	glass	solid	4 ounces
		Unknown 100	glass	solid	2 ounces
		Unknown 101	glass	solid	1 ounce
		Unknown 102	--	liquid	2x1/2 gallon
		Unknown 103	plastic	liquid	3x1 gallon
		Unknown 104	--	solid	1 ounce
		Unknown 104	glass	solid	1 ounce
		Unknown 105	glass	solid	1 ounce
		Unknown 107	glass	solid	1 pound
		Unknown 108	glass	--	10 ounces
		Unknown 110	plastic	solid	6 ounces
		Unknown 111	plastic	solid	8 ounces
		Unknown 111	glass	solid	1 pound
		Unknown 112	glass	liquid	1 ounce
		Unknown 113	glass	solid	1 ounce
		Unknown 114	glass	liquid	3 ounces
		Unknown 116	glass	solid	1 ounce
		Unknown 117	plastic	liquid	10 ounces
		Unknown 118	glass	solid	1 ounce
		Unknown 119	glass	solid	2 ounces
		Unknown 123	glass	liquid	2 ounces
		Broken glass	glass	solid	20 pounds
Cell number and date buried not reported		Amorphous Phosphorus	drum	solid	2x6 ounces
		Amorphous Red Phosphorus	drum	solid	1 pound
		Unknown 122	glass	liquid	10 ounces
		Unknown 121	glass	liquid	2 ounces
		Broken glass/plastic	plastic	solid	30 pounds
		Broken glass, paper and plastic debris	plastic	solid	50 pounds
		Broken glass, paper, plastic debris	plastic	solid	30 pounds
		Debis, paper, plastic, dirt	plastic	solid	50 pounds
		Paper, plastic debris	plastic	solid	20 pounds
		Paper, plastic debris	plastic	solid	20 pounds
		Paper, plastic debris	plastic	solid	20 pounds

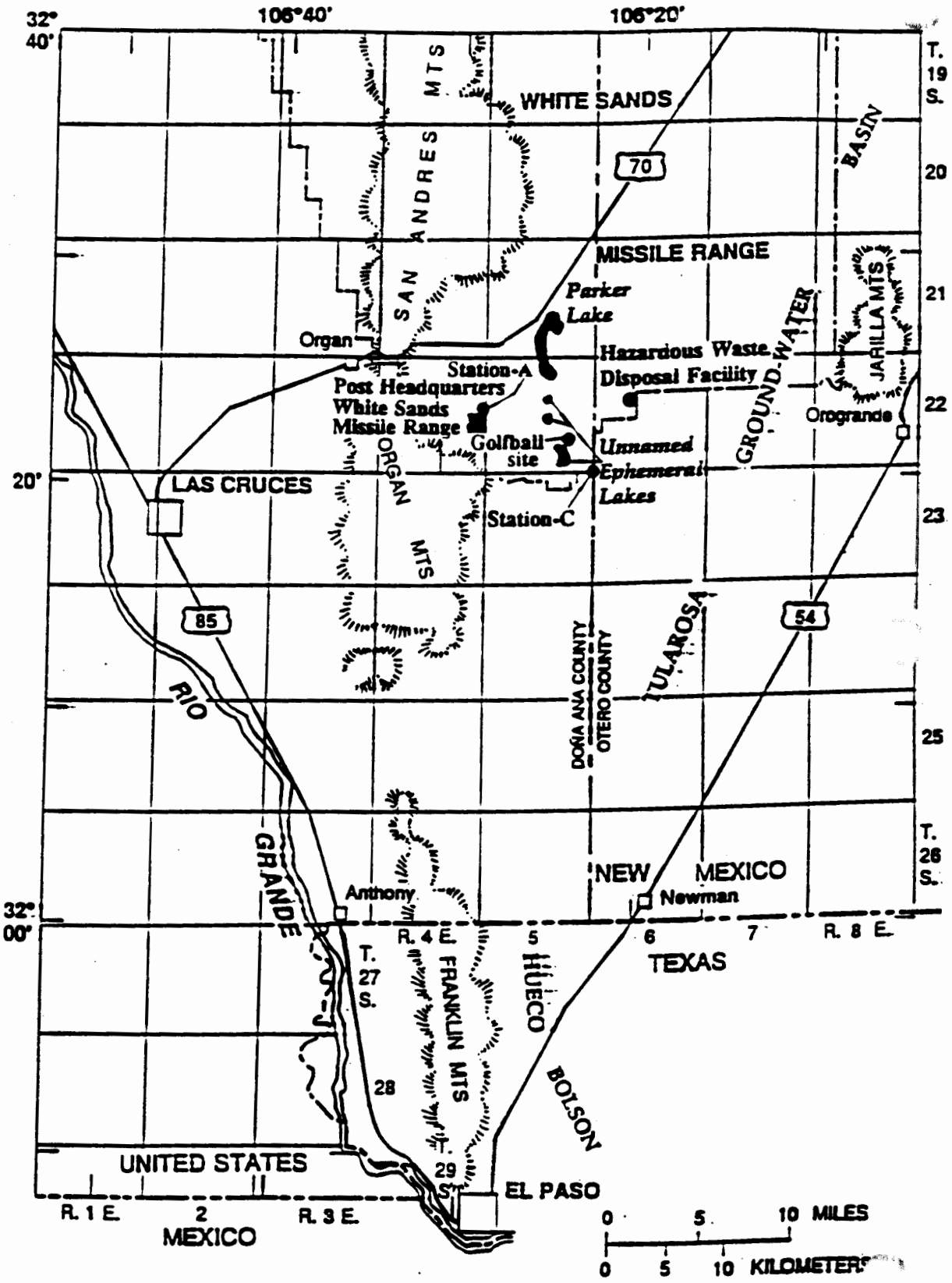


Figure 4.--Location of precipitation stations and physical features of part of White Sands Missile Ra
(modified from Cooper, 1970).

WATER BALANCE

Meterological and hydrologic data were analyzed to qualitatively evaluate the water balance in the vicinity of the Hazardous Waste Disposal Facility. Precipitation data for the Post Headquarters and vicinity (fig. 4) were collected from January 1950 through December 1989 at the following sites:

Station name	Period collected	Latitude-Longitude (degree, minutes)	Altitude (feet)
Station-A	January 1950-May 1978	32°23' 106°29'	4,251
Golfball site	May 1978-December 1979	32°22' 106°24'	3,925
Station-C	December 1979-December 1989	32°21' 106°22'	4,016
Hazardous Waste Disposal Facility	September 1988-December 1989	32°23' 106°20'	4,037

Evaporation data collected by the New Mexico Department of Agriculture on the New Mexico State University campus (Eschrick, 1990), located in Las Cruces about 35 miles southwest of the Hazardous Waste Disposal Facility, were compiled for 1979-89. The evaporation data collected at the New Mexico State University campus was the most complete available data for the area; weather patterns at the campus are comparable to those at the facility.

The climate in the vicinity of the Hazardous Waste Disposal Facility is arid to semiarid. There are an abundance of sunny days throughout the year. Mean annual temperature is about 60 degrees Fahrenheit and average relative humidity is 39 percent (Eschrick, 1990). Dust storms are frequent during

October 1988 through December 1989

[--, no data]

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1988	--	--	--	--	--	--	--	--	--	0.37	0.31	0.58	--
1989	0.22	0.83	0.47	0.01	0.43	0.01	1.88	2.36	1.49	0.22	0.01	0.45	8.38

March and April. The soil surface is dry and vegetation is sparse, characterized by desert flora, such as yucca trees, mesquite, and several varieties of cacti.

Precipitation

Precipitation in the area is mostly in the form of rain. Mean annual precipitation for 1950-89 recorded at Station-A, the Golfball site, and Station-C is 11.45 inches. Precipitation at the Hazardous Waste Disposal Facility for 1989 was 8.38 inches (table 2). Annual precipitation at Station-C, 4 miles from the facility, for 1989 was 9.77 inches. About 50 percent of the precipitation falls in July, August, and September; intense thunderstorms are common during this period.

Snowfall in the area is infrequent and melts rapidly. A snowfall depth of 43.4 inches, however, was measured at Station-C in the winter of 1987-88. A snowfall depth of 24.5 inches was measured at Station-A in the winter of 1967-68. Mean annual snowfall in the area is about 8 inches (Eschrick, 1990).

Evaporation

Evaporation at the Hazardous Waste Disposal Facility is governed by meteorological factors and is limited to the unsaturated zone. There are no ponds or lakes in the study area where evaporation needs to be considered. Transpiration is assumed to minor due to the sparseness of vegetation in the area.

Total pan-evaporation rates measured at the campus of New Mexico State University are listed in table 3. Mean annual pan evaporation for the continuous period of record, 1971-79, was 93.4 inches; 50 percent of this evaporation was measured in May through August.

In calculating potential evaporation, a conservative factor of 0.70 was applied to pan evaporation in order to obtain a more accurate estimate

Table 4.--Lithologic log for borehole BH-1 (22S.06E.16.234)-Continued

Lithology	Thickness (feet)	Depth inter below lan surface (feet)
Sand, very fine grained to coarse-grained; 3-inch layer of caliche. Caliche indurated with very fine to medium-grained sand, caliche fills pore space and coats grains, grayish-orange pink (10R 8/2).	1	34.5-3
Sand, fine- to very fine grained, silt, yellowish-pink.	0.5	35.5-3
Clay, pale red (10R 6/2). Probably a swelling clay.	1	36-37
Sand, fine- to very fine grained, silt, yellowish-pink.	1	37-38
No recovery	1	[illegible]
Sand, fine- to very fine grained sand, silt. Subrounded to well rounded, well sorted. Lithic grains compose <5 percent of the total, include obsidian, volcanic rock fragments, angular pinkish orange clay grains.	1.7	39-40
Clay and selenite crystals with minor silty component. Clay, very pale-orange (10YR 8/2) to pale-light brown.	0.1	40.7-
Clay with sand, silty to medium-grained sand dispersed throughout the clay. Scraped surface, pale red (10R 6/2), broken surface, light brown (5YR 6/4). Some mottling (green blotches) in clay.	2.7	40.8-
No recovery	0.5	43.5
Sandy clay with calcareous (caliche) fillings. Sand, silty to fine-grained, subrounded to rounded, (5YR 5/6). Calcareous zones approach a grayish-pink (10R 8/2).	3.5	44.-

Table 3.--Monthly evaporation, in inches, at New Mexico State University, Las Cruces, New Mexico

[Data from Office of the State Climatologist, New Mexico Deptartment of Agriculture, Las Cruces, total pan evaporation; M, missing data]

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1971	4.2	5.4	9.2	10.8	13.5	12.9	13.6	9.8	8.9	6.0	3.9	2.5	100.7
1972	3.5	5.4	9.4	11.0	11.6	11.5	12.6	9.9	6.7	6.3	3.5	3.1	94.5
1973	2.7	2.8	6.6	9.4	11.5	13.2	11.3	10.5	8.4	6.4	4.6	3.9	91.3
1974	3.5	4.6	7.8	10.5	11.9	14.7	10.5	9.1	7.4	5.6	2.9	2.4	90.9
1975	3.1	4.1	6.9	9.2	11.1	13.8	11.3	11.0	7.5	7.1	4.7	3.0	92.8
1976	3.4	5.0	8.6	9.1	11.0	13.6	10.9	11.4	7.3	5.4	3.2	2.4	91.3
1977	2.9	4.3	7.4	8.7	11.0	11.9	11.4	11.5	8.9	5.9	4.6	4.0	92.5
1978	2.9	3.8	6.9	10.5	12.5	14.1	13.7	11.2	7.9	5.7	3.2	2.9	95.3
1979	3.4	4.1	7.1	9.8	11.6	11.3	11.5	10.1	8.2	7.3	4.4	2.9	91.7
1980	3.2	4.3	7.7	9.3	11.0	14.2	14.5	10.6	7.0	6.5	M	3.6	M
1981	2.5	4.5	6.8	9.2	12.5	12.9	11.8	10.3	7.2	6.3	4.7	3.8	92.5
1982	4.3	M	7.9	9.8	11.0	13.3	12.0	10.5	8.0	6.6	3.2	M	M
1983	M	4.9	7.4	10.0	12.5	13.3	13.5	11.0	8.8	5.1	M	M	M
1984	M	M	9.0	11.2	13.2	12.3	12.8	9.0	9.0	4.8	3.8	M	M
1985	M	M	6.6	9.3	10.4	12.4	11.8	10.4	8.0	5.4	M	M	M
1986	M	5.0	7.3	9.9	11.6	10.5	10.8	10.1	7.8	5.4	3.0	M	M
1987	M	M	M	M	M	M	M	M	M	M	M	M	M
1988	M	M	10.1	9.0	12.8	12.7	12.1	8.6	8.0	6.1	M	M	M
1989	M	4.7	M	M	M	14.3	13.2	9.7	8.8	6.7	4.8	M	M
MEAN	M	M	7.7	9.9	11.7	12.9	12.1	10.4	7.9	6.0	M	M	M
MEANS FOR 1971-79													
MEAN	3.3	4.4	7.8	9.9	11.7	13.0	11.9	10.5	7.9	6.2	3.9	3.0	93.4

Table 4.--Lithologic log for borehole BH-1 (22S.06E.16.234)

[See Goddard and others (1951) for rock color terms. <, less than; mm, millimeter]

Lithology	Thickness (feet)	Depth int below la surfac (feet
Sand, very fine to medium-grained, subangular to subrounded, moderately to poorly sorted, (5YR 4/4). Predominately quartz. Minor caliche, present as medium-grained and as grain coatings.	4	0-4
Caliche, very fine sand in a caliche matrix. Sand, subangular, subrounded, moderately sorted, (10R 8/2). Composed chiefly of quartz with minor dark grains.	3	4-7
Caliche, very fine to medium-grained sand, (10R 8/2). Sand, predominately quartz with minor (<1 percent) dark minerals.	1	7-8
No recovery	1	8-9
Sand, medium- to coarse-grained, subangular and minor subrounded grains, pale-gray. Sand fraction well sorted. Some pebbles to 10 mm, and minor caliche. Composed of 95-98 percent quartz, <2 percent chert and quartzite, dark grains, and a few grains of obsidian.	2	9-11
No recovery	3	11-
Sand, medium- to fine-grained, reddish brown; minor caliche and clay at lower interval.	3	14-
No recovery	2	17-
Sand, very fine to medium-grained, subangular to subrounded, moderately well sorted, pale gray. Composed of approximately 98 percent quartz, 2 percent lithic grains, obsidian, and chert. Minor caliche.	1.5	19-

facility is 230 feet below land surface. Ground water flows approximately south-southwest beneath the facility. The ground water is nonpotable and has a dissolved-solids concentration of 16,800 milligrams per liter. The nearest production well yielding potable water is in the Post Headquarters area, 8 miles west of the study area.

Taking into account that there is no ground-water development within the Hazardous Waste Disposal Facility, it is assumed for the purpose of this study that a natural equilibrium exists between ground-water inflow and outflow, and that net annual-storage changes are negligible.

Evaluation of Water Balance

Having discussed independently the inflow and outflow of water within the Hazardous Waste Disposal Facility, a qualitative evaluation of the water balance was made. The mean annual precipitation at the facility was assumed to be 11.45 inches from the 1950-89 mean annual precipitation at Station-A, Golfball site, and Station-C. About 50 percent of the precipitation falls in July, August, and September.

The mean annual pan evaporation, measured on the New Mexico State University campus from 1971 through 1979, was 93.4 inches, with about 50 percent of the evaporation occurring during May through August. Potential evaporation was calculated using the pan evaporation figure and the conservative factor of 0.70, resulting in a more realistic estimate of 65 inches per year.

The source of natural recharge to the ground water at the Hazardous Wa Disposal Facility is the precipitation that falls in the area. In summary:

Precipitation	Surface-water inflow	Surface-water outflow	Ground-water recharge	Ground-water discharge	Potential evaporatio
11.45 inches per year	Negligible	Negligible	Negligible	Negligible	65 inches per yea

Because potential evaporation is more than 5 times the precipitation, it c be assumed that most precipitation at the facility is evaporated. D periods of intense precipitation, when precipitation is greater than pote evaporation, recharge to the ground-water system might occur at an estima rate of 0.019 inch per year (see section Unsaturated-Zone Characteristics

Table 4.--Lithologic log for borehole BH-1 (22S.06E.16.234)-Concluded

Lithology	Thickness (feet)	Depth interval below land surface (feet)
Sandy clay, very fine to fine-grained sand in a clay matrix, light brown (5YR 5/6). Subrounded to rounded with moderate sorting. Minor caliche as grains or blotches. Sand, 98 percent quartz with 2 percent or less dark lithics.	1.5	47.5-49
Clay, with silt and fine sand. Predominately clay, pale reddish brown (10R 5/4) with silt and minor dispersed fine-grained sand. Minor caliche blotches.	0.25	49-49.25
Clay, fine-grained sand and silt, (5YR 5/6) and 1 to 2 mm blotches of caliche. Sand, 98 percent quartz with 2 percent or less dark lithics.	7.25	49.25-56.5
Silty to fine-grained sand with clay (5YR 5/6). Sand, 95 percent quartz, 5 percent lithics. Some pinkish orange clay.	5.8	56.5-62.3
Sand, fine- to medium-grained, some silt and very fine grained sand, subrounded to rounded, well sorted, light brown (5YR 5/6). Composed of 98 percent quartz and 2 percent or less lithics. Some clay as grain coatings.	0.8	62.3-63.1
Clay, with very fine to fine-grained sand and silt, light brown (5YR 6/4). Well sorted, subrounded, 98 percent quartz. Some minor caliche blotches. Clay, pinker (10R 8/2) at 70- to 71-foot interval and grayish-orange pink (5YR 7/2) at 71- to 74-foot interval.	10.9	63.1-74
No recovery	2.5	74-76.5
Clay, with more silt than 63.1- to 74-foot interval, grayish-orange pink (5YR 7/2), calcareous. Some caliche grains.	1.5	76.5-78
Clay, light brown (5YR 6/4), with silt to fine-grained sand layers.	1	78-79
Sand, very fine grained sand. Silt, well-rounded and well-sorted. Grayish-orange pink to light brown. Slightly calcareous.	5	79-84

Table 5.—Lithologic log for test well TW-4 (22S.06E.16.412)

[Some samples were washed]

Lithology	Thickness (feet)	Depth interval below land surface (feet)
Sand, fine to coarse-grained, caliche; well sorted, angular to subrounded.	10	0-10
Sand, very fine to fine-grained, caliche: well sorted, subangular to rounded; small amounts of igneous rock and biotite.	5	10-15
No sample	5	15-20
Sand, silt, clay, and caliche: sand is very fine to coarse grained, moderately sorted.	15	20-35
Sand, silt; sand is fine to medium grained; moderately sorted; angular to subrounded.	5	35-40
Silt, sand: sand subangular to subrounded; composed of quartz with some igneous rock.	35	40-75
Sand, very fine to medium-grained; angular to rounded; composed of quartz and igneous rock, some biotite.	30	75-105
Sand, clay; very fine grained sand; well sorted; sand is subangular to subrounded; composed of quartz.	5	105-110
Sand, coarse- to very coarse grained; some fine-grained sand; poorly sorted; subangular to subrounded; composed of quartz.	15	110-125
Sand, medium- to coarse-grained, some gravel; poorly sorted; grains subangular to rounded; composed of quartz and some igneous rock.	15	125-140

Table 5.—Lithologic log for test well TW-4 (22S.06E.16.412)—Continued

Lithology	Thickness (feet)	Depth interval below land surface (feet)
No sample	5	140-145
Sand, medium- to coarse-grained, poorly sorted: some clay; moderately sorted: sand angular to subrounded: composed of quartz and igneous rock.	10	145-155
Sand, very fine to medium- grained, some clay; moderately sorted: sand angular to subrounded: composed of quartz and igneous rock.	10	155-165
Clay, with very fine to fine-grained sand: well sorted: sand subrounded, composed of quartz: caliche.	10	165-175
Clay, silt, sand: sand is very-fine to medium grained; moderately sorted: caliche cement prominent.	15	175-190
Sand, very fine to very coarse grained: angular: angular to subrounded: well sorted: composed of quartz: some caliche.	10	190-200
Sand, fine-, medium- and coarse-grained:some clay; sand becomes prominent gray; very well sorted: subangular: composed of quartz and igneous rock.	5	200-205
Sand, very coarse grained with volcanic pebbles; subangular to subrounded; moderately sorted.	5	205-210
Clay, sand; very fine to medium grained sand, well sorted, subangular, composed of quartz.	5	210-215

Table 5.—Lithologic log for test well TW-4 (22S.06E.16.412)—Concluded

Lithology	Thickness (feet)	Depth interval below land surface (feet)
Sand, fine- to very coarse grained and pebbles: gypsum/selenite crystals present from 230 to 235 feet.	20	215-235
Clay, sand: sand is fine to medium grained, some coarse-grained sand: moderately sorted, composed of quartz.	5	235-240
Clay, silty sand, very fine grained to medium-grained sand; selenite/gypsum crystals within 250-255 interval, subangular; caliche throughout.	150	240-390
Clay, sand: sand is very fine to medium-grained: some coarse granules, gravel, and chert; caliche throughout.	40	390-430

Unsaturated-Zone Characteristics section of this report. Dominant clay zones were penetrated in borehole BH-1 from 40.7 to 74 feet and from 76.5 to 79 feet below land surface. The drilling tools of the auger rig became stuck between 80 and 84 feet, probably due to swelling clay.

Test well TW-4 was drilled in September 1989 (table 6) as an exploratory and monitoring well to obtain geohydrologic data, monitor water levels, and conduct aquifer tests. This well penetrated 430 feet of heterogeneous bolson-fill deposits and penetrated dominant clay zones at 165 to 190 feet and 235 to 430 feet (table 5).

Test wells TW-1, TW-2, and TW-3 were drilled in summer and fall of 1983 (table 6) as exploratory and monitoring wells to obtain geohydrologic data and to monitor water levels and water quality. The test wells were not developed or sampled until January 1989. The wells penetrated interbedded lenses of clay, silt, sand, and some gravel (Myers and Pinckley, 1987). Lithologic columns of test wells TW-1, TW-2, TW-3, and TW-4 are shown in figure 5.

Test well TW-1 penetrated minor clay zones at 125 to 150 feet and 240 to 245 feet below land surface. Test well TW-2 penetrated several minor clay zones and a dominant clay zone at 95 to 105 feet below land surface. This clay zone probably correlates with the clay zone at the bottom of borehole BH-1 located about 60 feet west of test well TW-2. Test well TW-3 penetrated 205 feet of interbedded sand, gravel, silt, and clay before entering a dominant clay unit that extends to 300 feet below land surface. Dominant clay layers also were penetrated in test well TW-3 at 85 to 100 and 125 to 160 feet below land surface.

Table 6.--Well records of test wells TW-1, TW-2, TW-3, and TW-4, White Sands Missile Range

[Modified from Myers and Pinkley, 1987]

Well name	Location	Date drilled	Hole diameter (inches)	Drilled depth (feet)	Finished depth (feet)	Screen interval (depth below land surface) (feet)	Ca di (inch
TW-1	22S.06E.16.233	7-83	9 7/8	300	285	225-285	4
TW-2	22S.06E.16.234	8-83	9 7/8	300	285	225-285	4
TW-3	22S.06E.16.234A	10-83	9 7/8	300	285	230-270	4
TW-4	22S.06E.16.412	9-89	13	430	407	327-387	6

Well name	Altitude of land surface (feet)	Water level below land surface (feet)	Date measured
TW-1	4,031.81	229.49	3-20-89
TW-2	4,038.22	235.71	3-20-89
TW-3	4,037.19	234.62	3-20-89
TW-4	4,036.50	234.10	11-02-89

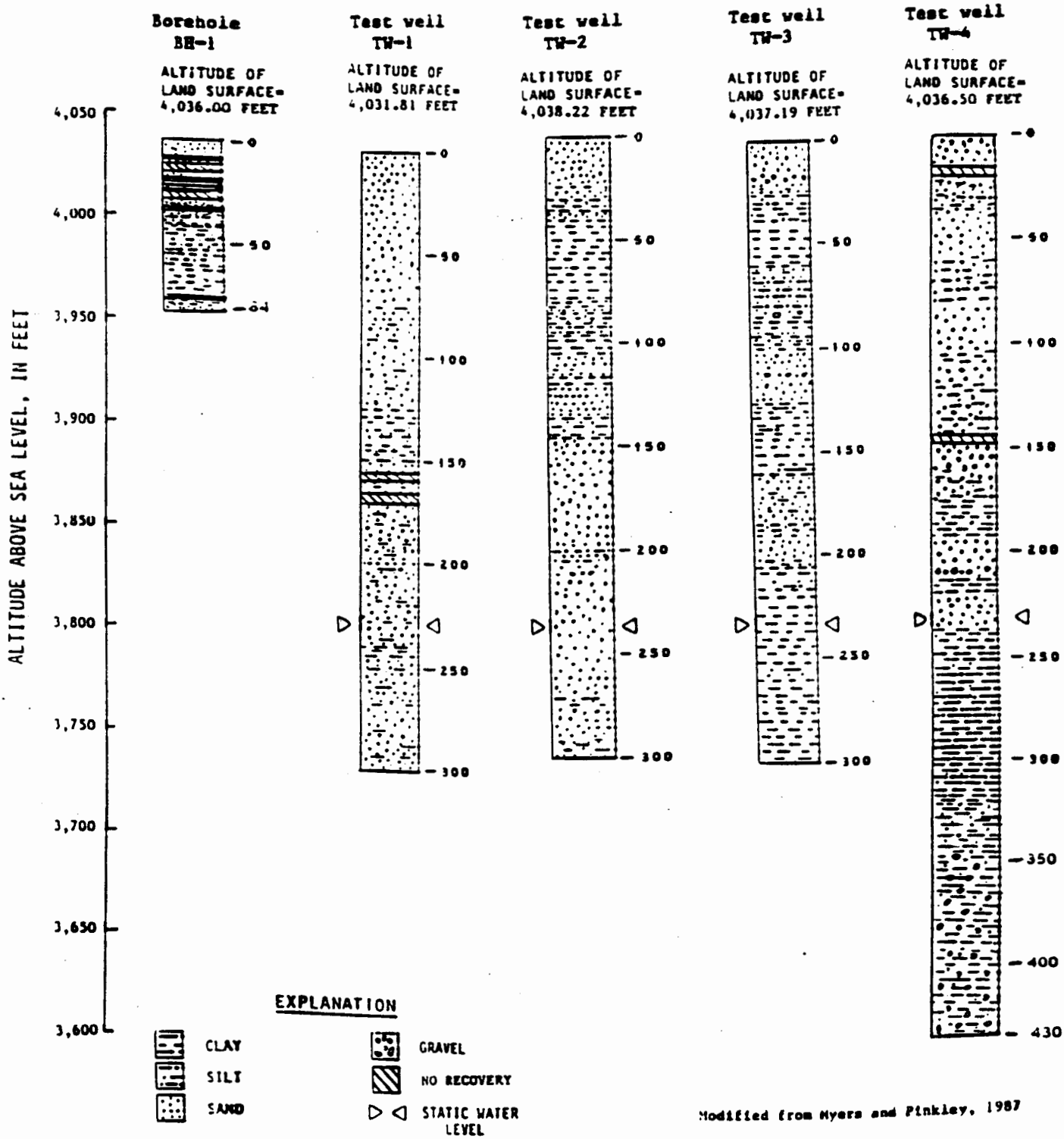


Figure 5.—Lithologic logs of borehole BH-1 and test wells TW-1, TW-2, TW-3, and TW-4.

Unsaturated-Zone Characteristics

The zone between the land surface and the potentiometric surface of t bolson-fill aquifer is defined as the unsaturated zone. In the area of th Hazardous Waste Disposal Facility, that zone is about 230 feet thick. As of this investigation, the New Mexico Bureau of Mines and Mineral Resource conducted a recharge study of the unsaturated zone (Stone, 1991). The stu estimated an average long-term rate at which water may move toward the wat table with the inflow of precipitation using the chloride mass-balance met (Allison and Hughes, 1978).

In estimating recharge, the following equation (Stone, 1991) was used

$$R = (P \times Cl_p)/(Cl_{sw}) \quad ($$

where R = recharge rate, in inches per year;

P = mean annual precipitation, in inches per year;

Cl_p = annual chloride input by precipitation, in milligrams per liter; and

Cl_{sw} = average soil-water chloride concentration below the root zon milligrams per liter.

Because data for Cl_p were not available for the Hazardous Waste Disp Facility, Stone (1991) obtained existing Cl_p data from the Sevilleta Wild Refuge about 135 miles north-northwest of the facility. Stone also used available P data from Sevilleta Wildlife Refuge because the precipitatior characteristics for the Sevilleta Wildlife Refuge are comparable to thos the facility. Using values of 7.9 inches per year for P, 0.37 milligram liter for Cl_p (Phillips and others, 1984), and a C_{sw} value of 218 millig per liter from soil samples collected from borehole BH-1, Stone (1991) estimated a recharge rate of 0.013 inch per year.

Values selected for use in the mass-balance equation affect the results. Ideally, onsite data for P and Cl_p are used. Although a monitoring network has been installed at the Hazardous Waste Disposal Facility to collect annual-precipitation-quantity data and bulk-wet and bulk-dry precipitation samples for analysis of chloride concentrations, the record was not yet complete. One year of precipitation data--8.38 inches in 1989-- was available for the Hazardous Waste Disposal Facility. Using 8.38 inches per year for P, estimated recharge is 0.014 inch per year for 1989. Mean annual precipitation data for the period 1950-89, as recorded at Station-A, the Golfball site, and Station-C, was 11.45 inches. Using a mean annual P value of 11.45 inches, the estimated recharge rate is 0.019 inch.

The long-term average rate of 0.019 inch per year is a reasonable estimate of recharge at the Hazardous Waste Disposal Facility because it is a 40 year mean annual P for the vicinity of the facility. Stone (1991) emphasized that: (1) various climatic and site factors affect this estimate, (2) the rate applies only to readily soluble material that moves as soil water does, and (3) the mass-balance calculation is based on the assumption that the movement of soil water is strictly vertical and the medium is isotropic. The climatic conditions in the study area are variable, but, in general, evaporation exceeds precipitation and most of the potential recharge is evaporated. In the event that precipitation exceeds evaporation, the heterogeneity of the bolson-fill deposits will result in some lateral flow of the water through the unsaturated zone affecting the rate of recharge. Clay zones beneath the Hazardous Waste Disposal Facility would increase the rate of lateral flow of fluids through the unsaturated zone and decrease the rate of vertical flow.

Saturated-Zone Characteristics

The bolson-fill aquifer is defined as the saturated zone. In the ar the Hazardous Waste Disposal Facility, the water table is about 230 feet the land surface (table 6) and slopes in a south-southwest direction (fig (see also Wilson and Myers, 1981, plate 1). In the immediate area of the facility, the hydraulic gradient is nearly flat at about 1 foot per mile. the vicinity of the Gregg well, northwest of the facility, the hydraulic gradient increases to about 7 feet per mile.

The bolson-fill deposits are considered to be a water-table aquifer. Although some test wells have penetrated zones with semi-confined conditi the response would be typical of water-table conditions after prolonged pumpage.

Step-drawdown and constant-discharge aquifer tests were conduc area of the Hazardous Waste Disposal Facility to: (1) aid in selecting t most suitable rate for the constant-discharge aquifer test; (2) determin transmissivity of the aquifer for use in estimating the rate of flow thr the aquifer; and (3) determine the specific capacity of the aquifer.

The Theis solution for estimating transmissivity is used extensivel analyzing aquifer-test data in the Tularosa Basin (Wilson and others, 1 15 and table 3, and Orr and Myers, 1986). Methods derived from the The nonequilibrium equation (Lohman, 1979) were used to analyze the aquifer data.

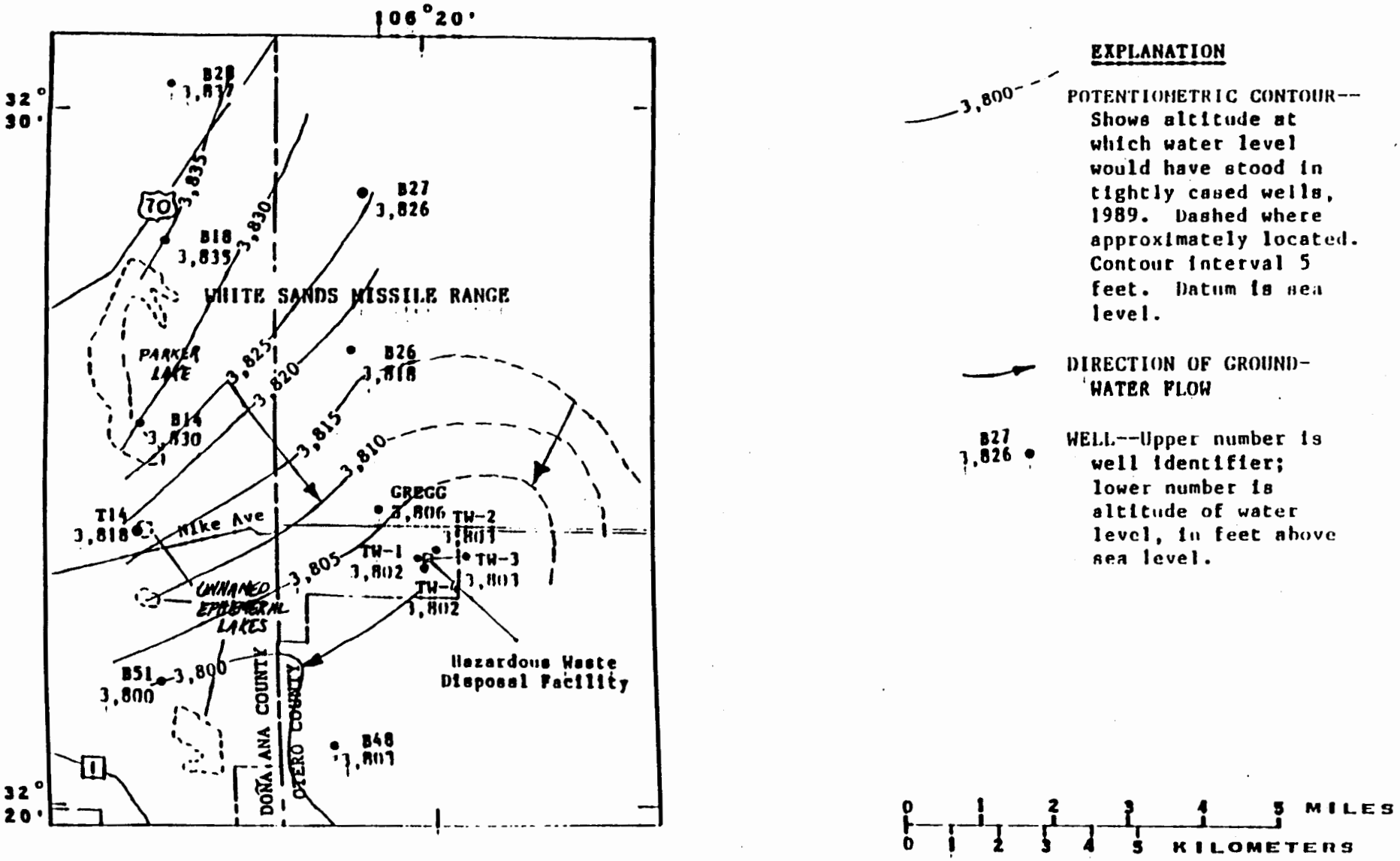


Figure 6.--Potentiometric surface of the bolson-fill aquifer.

The analytical methods used in conducting the aquifer-test analysis are based on the following assumptions:

1. The aquifer is homogenous and permeability in the horizontal and vertical directions are uniform.
2. The aquifer has infinite areal extent.
3. The pumped well penetrates and receives water from the entire thickness of the aquifer.
4. Water that is removed from storage is discharged instantaneously with a decline in hydraulic head.
5. The well diameter is infinitesimal.
6. The aquifer has radial flow within the radius of influence of the w

In the area of the Hazardous Waste Disposal Facility, the aquifer is heterogeneous, consisting of interbedded clay, silt, sand, and gravel (. Because of the heterogeneous composition of the aquifer materials, vertical and horizontal permeability vary substantially. The less permeable clay and silt lenses suppress vertical movement of water through the aquifer. The pumped well, test well TW-4, does not penetrate the entire thickness of the aquifer. Due to the heterogeneous and anisotropic conditions of the aquife: radial flow probably occurs only adjacent to the screened interval of the pumped well. Although the assumptions are quite restrictive and the geohydrologic conditions in the area do not totally conform to these requirements, the Theis method of analyses has proved to provide acceptable results for estimating aquifer characteristics.

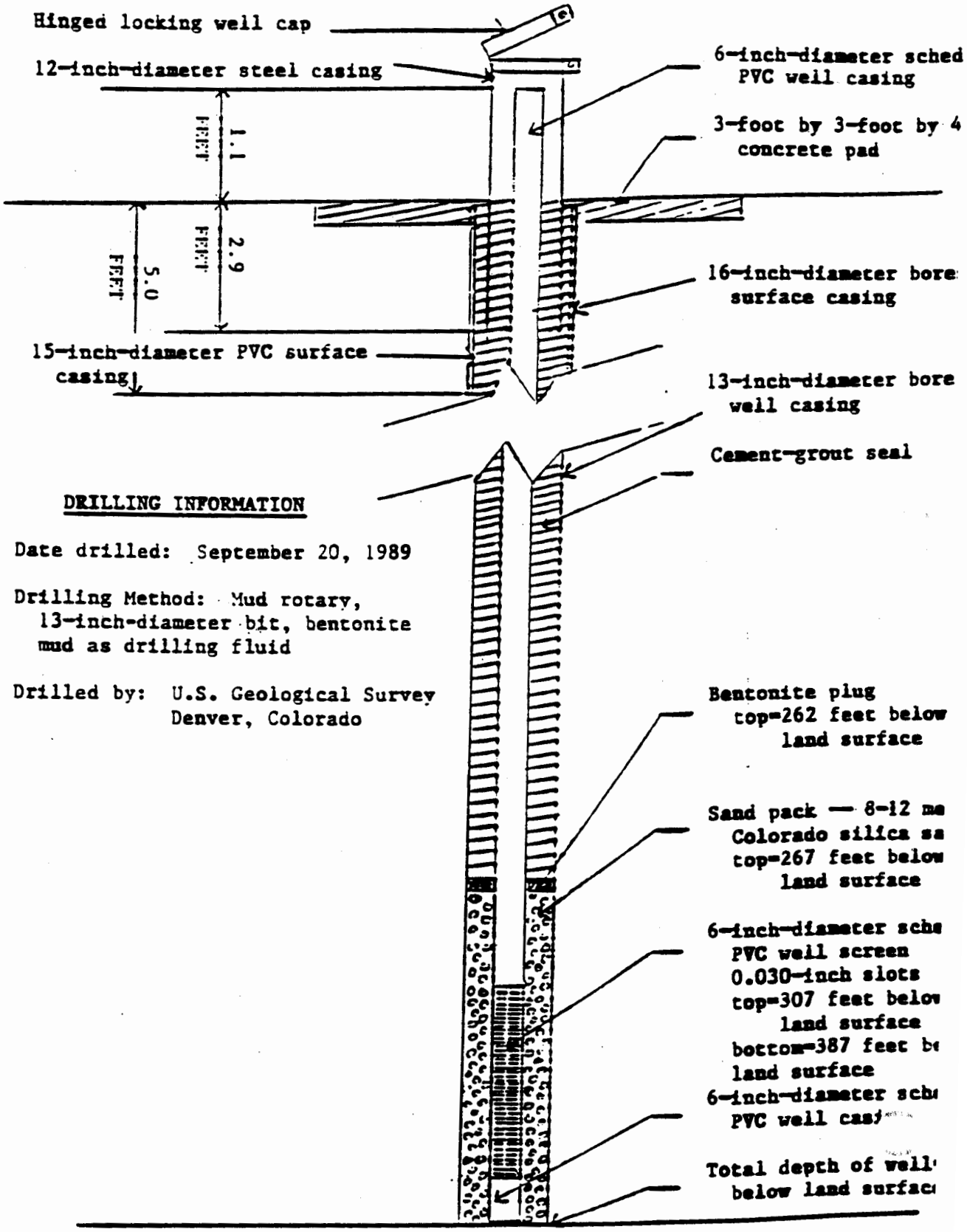
The pumped well for the aquifer tests was test well TW-4. Test well T was drilled to a depth of 430 feet (table 6). The 13-inch-diameter borehol

was cased with 6-inch-diameter polyvinylchloride (PVC) casing from about 1.1 inches above land surface to a depth of 407 feet (fig. 7) and screened with 0.030-inch slotted PVC screen from 307 to 387 feet below the land surface. Threaded casing and screen were used. The well was sand packed from 267-407 feet below the land surface.

Test wells TW-1, TW-2, and TW-3 were used as observation wells. Each well was instrumented with pressure transducers and a digital recorder for measuring water-level fluctuations during the aquifer test. Manual water-level measurements were made in test well TW-4 to verify the digital-instrumentation measurements.

Test wells TW-1, TW-2, and TW-3 were continuously monitored for water-level fluctuations 12 days prior to the aquifer tests. There were no substantial fluctuations or evident trends in the data that may have identified changes in barometric pressure. It is, therefore, assumed that barometric pressure remained virtually constant.

The step-drawdown aquifer test was conducted on September 26, 1989. Test well TW-4 was pumped at an initial rate of 40 gallons per minute for 1 hour, with a drawdown of 41.3 feet after the first hour. The discharge rate was increased to 90 gallons per minute for 1 hour resulting in a drawdown of 41.5 feet after the 2 hours of continued pumping. The discharge rate was then increased to 110 gallons per minute for the last hour. The total drawdown at the end of the test was 55.8 feet. The pumping period was followed by a 14-hour recovery period. The step-drawdown aquifer test was used to determine a suitable rate for the constant-discharge aquifer test; the final step rate of 110 gallons per minute was used.



DRILLING INFORMATION

Date drilled: September 20, 1989

Drilling Method: Mud rotary, 13-inch-diameter bit, bentonite mud as drilling fluid

Drilled by: U.S. Geological Survey Denver, Colorado

... for test well TW-4.

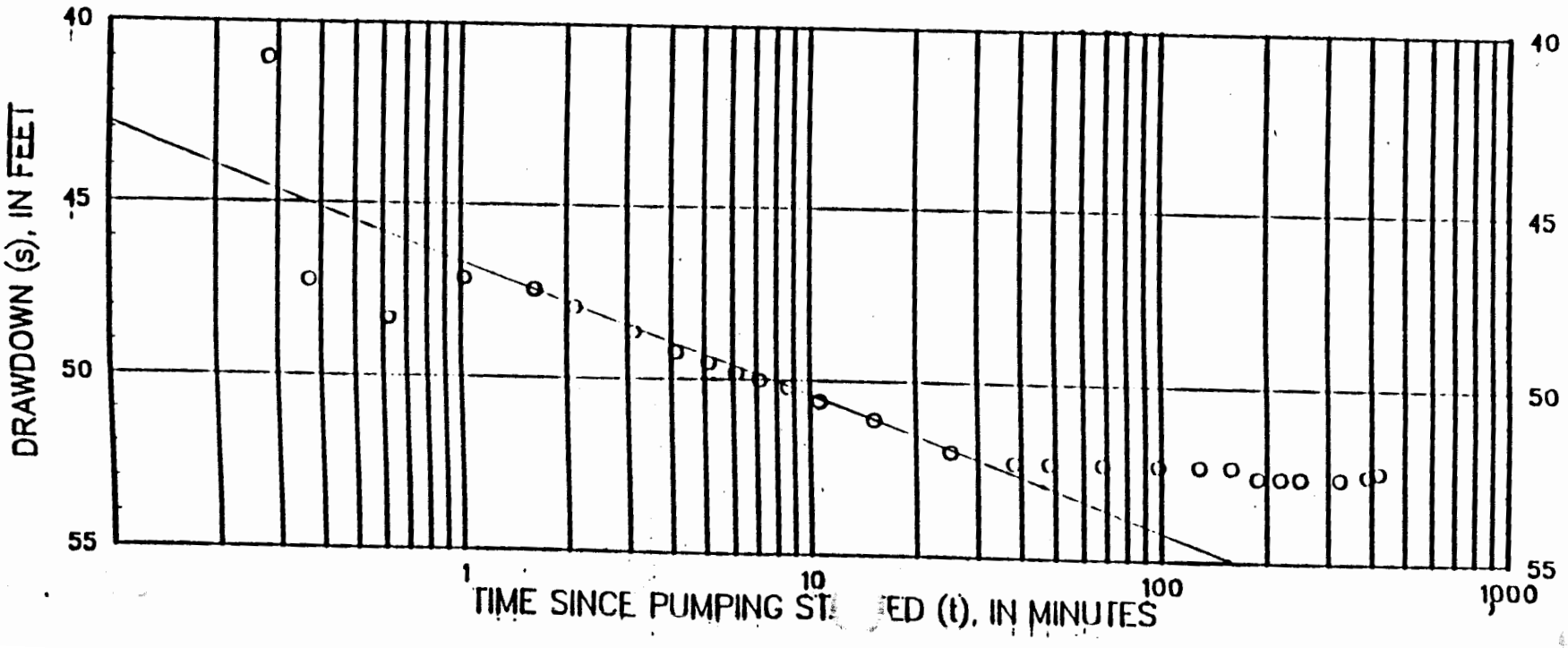
The constant-discharge aquifer test began on September 27, 1989. The water level in the well had fully recovered to the initial static-water level of the previous day. Test well TW-4 was pumped for 7 hours at 110 gallons per minute. Total drawdown at the end of the pumping period was 52.4 feet. The 7-hour specific capacity based on a constant discharge of 110 gallons per minute was 2.10 gallons per minute per foot of drawdown. The resulting drawdown test data were analyzed using the Cooper and Jacob (1946) straight-line method. Transmissivity of the aquifer open to test well TW-4 was estimated to be about 1,000 feet squared per day (fig. 8). The water-level recovery method (Lohman, 1979) was also used to estimate transmissivity of the aquifer. Time-recovery and residual-drawdown analyses resulted in transmissivity values of 1,300 feet squared per day (fig. 9 and 10).

The lithologic log of test well TW-4 indicates a clay zone at and above the top of the well screen with the percentage of clay decreasing and the percentage of sand increasing with depth (fig. 5). Assuming the permeable water-yielding zone is directly adjacent to, and limited to, the well screen, a total thickness of about 80 feet of permeable sand units could yield water to the production zone. Using the estimated transmissivity values from 1,000 to 1,300 feet squared per day, the estimate of the average hydraulic conductivity for the assumed water-producing zone ranges from 12.5 to 16.3 feet per day.

CONSTANT-DISCHARGE AQUIFER TEST--Test well TW-4
DATE OF TEST--September 27, 1989
DISHCARGE (Q)=110 gallons per minute
=21,175 cubic feet per day
DRAWDOWN (s) PER LOG CYCLE--$\Delta s/\log_{10} t$=3.77 feet

ESTIMATED TRANSMISSIVITY (T)= $\frac{2.300}{4\pi\Delta s/\log_{10} t}$

=1,028 feet squared per day
T≈1,000 feet squared per day



TIME-RECOVERY CURVE—Test well TW-4
DATE OF TEST—September 27, 1989
DISHCARGE (Q)=110 gallons per minute
CALCULATED RECOVERY (s) PER LOG CYCLE—$\Delta s/\log_{10} t'$=3.0 feet

ESTIMATED TRANSMISSIVITY (T)= $\frac{264Q}{\Delta s}$
=9,680 gallons per day per foot
T=1,300 feet squared per day

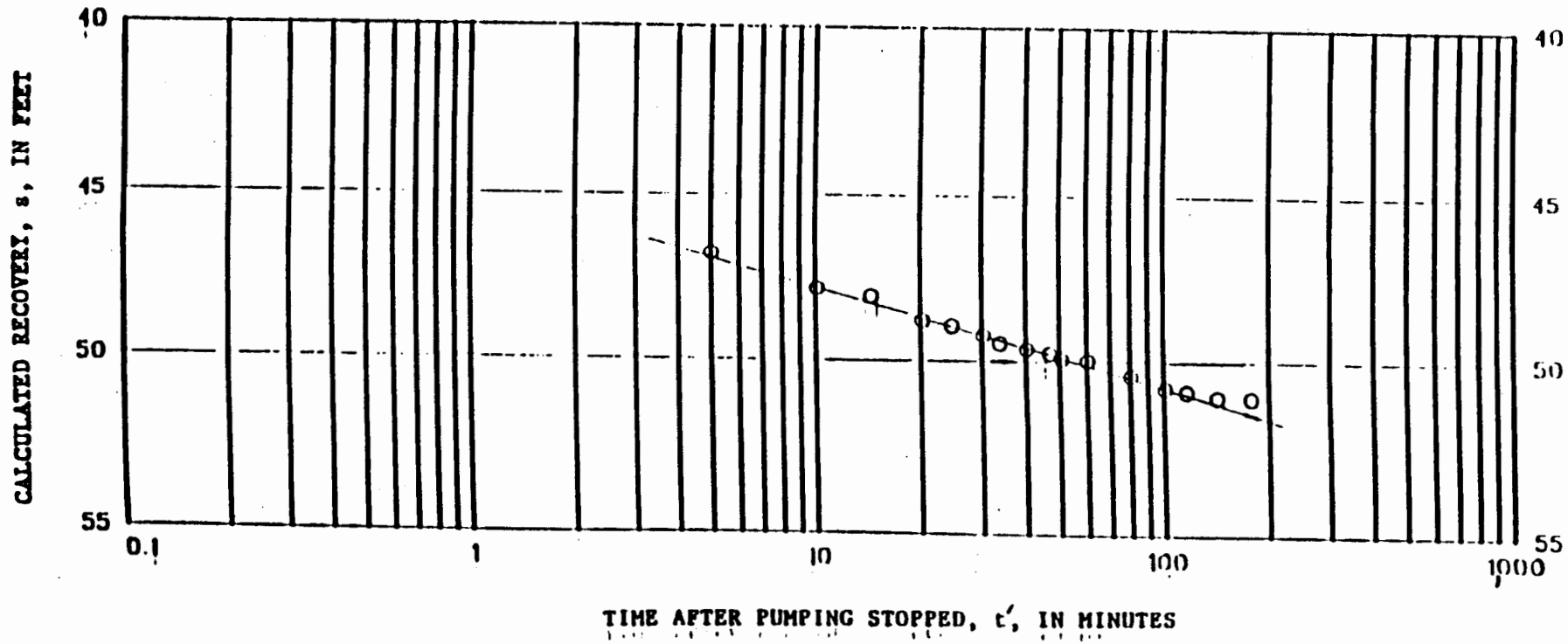
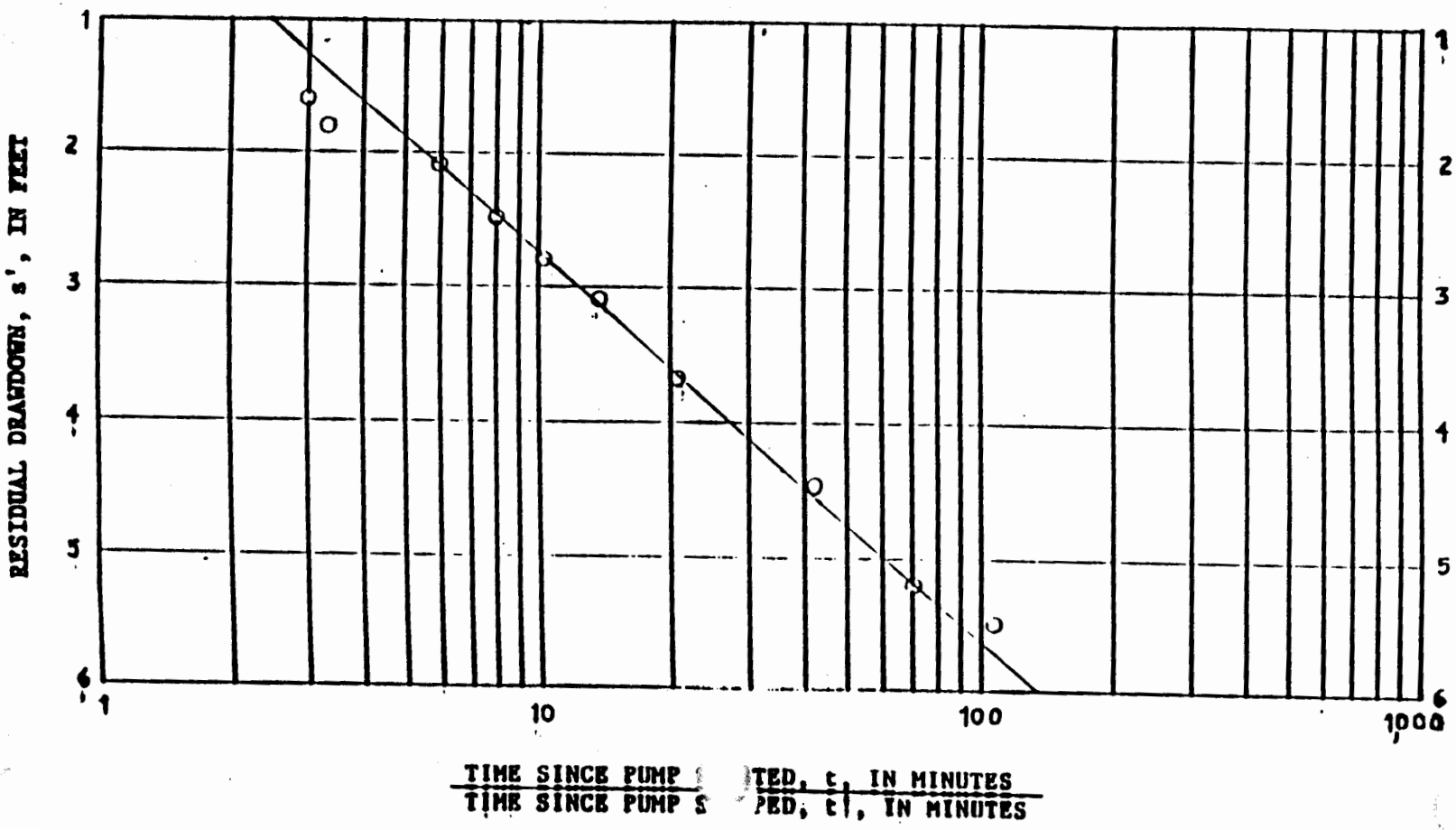


Figure 9.—Time-recovery curve of recovery-test data for test well TW-4.

RESIDUAL-DRAWDOWN CURVE--Test well TW-4
DATE OF TEST--September 27, 1989
DISHCARGE (Q)=110 gallons per minute
RESIDUAL DRAWDOWN (s') PER LOG CYCLE--$\Delta s'/\log_{10} t/t'$=2.9 feet

ESTIMATED TRANSMISSIVITY (T)= $\frac{2640}{\Delta s'}$

=10,000 gallons per day per foot
T=1,300 feet squared per day



During the aquifer testing of test well TW-4, test well TW-1 showed reverse water-level fluctuations of 0.05 foot. When the pump in test well TW-4 was shut off, the water level in test well TW-1 declined by 0.06 foot, then resumed recovery. It is assumed that when the pumping began in test well TW-4, the sediments in the overlying clay and finer sand units were compressed due to lateral pumping stresses, causing a reduced porosity and the rise of water in test well TW-1. It is also assumed that when the pumping is stopped, the overlying sediments contracted, resuming the similar characteristics prior to pumping, due to the decrease in lateral pressure.

Ground-Water Quality

Wells in the area of the Hazardous Waste Disposal Facility yield very saline water. Very saline water is defined as water having a dissolved-soli concentration of 10,000 to 35,000 milligrams per liter (Hem, 1985, p. 157). Fresh ground water, defined as water having a dissolved-solids concentration less than 1,000 milligrams per liter, is present in alluvial fans along the mountain fronts (fig. 11). Ground water increases in salinity from the mountain fronts toward the facility. Ground water near the Hazardous Waste Disposal Facility typically has large concentrations of dissolved solids, calcium, magnesium, sodium, chloride, and sulfate (Kelley and Hearne, 1976, 44).

The potentiometric-surface map (fig. 6) indicates that ground water fl towards the southwest in the vicinity of the Hazardous Waste Disposal Facility. Although the gradient is quite flat in the area of the facility, test wells TW-1, TW-2, and TW-3 are hydrologically upgradient from the landfill; test well TW-4 is hydrologically downgradient from the landfill (figs. 2 and 6). Test wells TW-1, TW-2, and TW-3 are considered background sampling sites.

Water in test wells in the vicinity of the Hazardous Waste Disposal Facility were sampled from January through September 1989 (tables 7-9). Th water samples were analyzed for dissolved solids, nutrients, trace elements and organic and synthetic chemical compounds. Laboratory analytical metho are listed in table 10. Water in test wells TW-1, TW-2, TW-3, and TW-4 contained dissolved-solids concentrations of greater than 14,500 milligram per liter and is considered nonpotable (tables 7 and 11). Chloride and

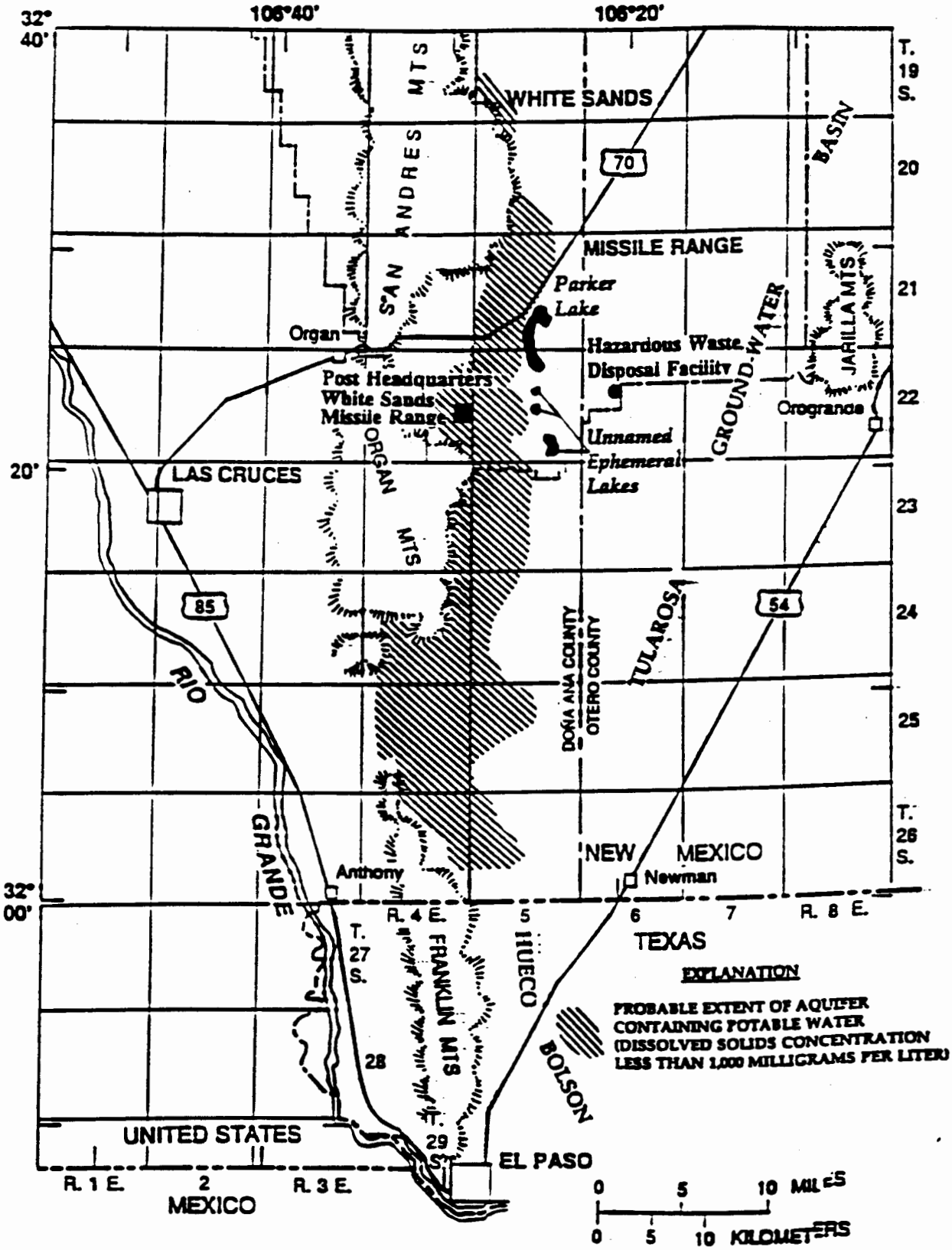


Figure 11.--Location of aquifer containing potable water (modified from Cooper, 1970, and White Sands Missile Range, 1975).

Table 7.--Physical properties of, and major dissolved solids, and nutrients in water from wells in the vicinity of the Hazardous Waste Disposal Facility, White Sands Missile Range

[Ft, feet; min, minute; gal/min, gallons per minute; uS/cm, microsiemens per centimeter at 25 degrees Celsius; °C, degrees Celsius; mg/L, milligrams per liter; <, less than; —, no data]

Well name	Well number	Date	Time	Depth of well, total (ft)	Pump or flow period prior to sampling (min)	Flow rate, instantaneous (gal/min)	Specific conductance (uS/cm)	pH (standard units)
TW-1	22S.06E.16.233	01-04-89	1400	285	—	—	21,000	7.0
TW-2	22S.06E.16.234	01-10-89	1450	285	—	—	20,600	7.0
TW-3	22S.06E.16.234A	01-12-89	1420	290	—	—	20,600	7.2
TW-4	22S.06E.16.412	09-27-89	1130	407	244	110	—	—
		09-27-89	1330	407	464	110	19,900	7.2

Well name	Alkalinity (mg/L as $CaCO_3$)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Potassium, dissolved (mg/L as K)	Chloride, dissolved (mg/L as Cl)	Sulfate, dissolved (mg/L as SO_4)	Fluoride, dissolved (mg/L as F)	Silica, dissolved (mg/L as SiO_2)
TW-1	181	990	820	2,800	25	6,600	3,800	0.20	33
TW-2	148	1,100	820	2,500	27	6,700	3,100	0.10	36
TW-3	141	1,200	800	2,700	27	6,900	3,000	0.20	30
TW-4	—	—	—	—	—	—	—	—	—
	241	560	760	3,600	28	3,700	8,000	0.30	30

Well name	Nitrogen, ammonia total (mg/L as N)	Nitrogen, ammonia + organic total (mg/L as N)	Nitrogen, NO_2+NO_3 total (mg/L as N)	Nitrogen, NO_2+NO_3 dissolved (mg/L as N)	Phosphorus total (mg/L as P)	Phosphorus ortho, dissolved (mg/L as P)	Dissolved solids, total dissolved mg/L	Temperature water (°C)
TW-1	—	—	—	1.20	—	—	15,900	26.5
TW-2	—	—	—	1.60	—	—	14,900	26.5
TW-3	—	—	—	1.60	—	—	14,800	26.0
TW-4	—	—	—	—	—	—	—	—
	0.200	0.40	<0.100	<0.100	0.060	<0.010	16,800	—

Table 8.--Trace elements in water from wells in the vicinity of the Hazardous Waste Disposal Facility, White Sands Missile Range

[ug/L, micrograms per liter; <, less than; —, no data]

Well name	Well number	Date	Time	Arsenic, dissolved (ug/L as As)	Barium, dissolved (ug/L as Ba)	Beryllium, dissolved (ug/L as Be)	Boron, dissolved (ug/L as B)	Cadmium, dissolved (ug/L as Cd)	Chromium, dissolved (ug/L as Cr)
TW-1	22S.06E.16.233	01-04-89	1400	26	100	—	290	<1.0	5
TW-2	22S.06E.16.234	01-10-89	1450	29	100	—	300	<1.0	5
TW-3	22S.06E.16.234A	01-12-89	1420	3	100	—	270	<1.0	4
TW-4	22S.06E.16.412	09-27-89	1130	—	—	—	—	—	—
		09-27-89	1330	2	<100	<10	590	<2.0	6

Well name	Cobalt, dissolved (ug/L as Co)	Copper, dissolved (ug/L as Cu)	Iron, dissolved (ug/L as Fe)	Lead, dissolved (ug/L as Pb)	Manganese, dissolved (ug/L as Mn)	Molybdenum, dissolved (ug/L as Mo)	Nickel, dissolved (ug/L as Ni)	Silver, dissolved (ug/L as Ag)	Strontium, dissolved (ug/L as Sr)	Zinc, dissolved (ug/L as Zn)
TW-1	—	4	80	<5	40	—	—	1.0	23,000	510
TW-2	—	22	80	<5	40	—	—	<1.0	28,000	710
TW-3	—	5	80	<5	160	—	—	<1.0	28,000	1,200
TW-4	—	—	—	—	—	—	—	—	—	—
	<1	14	280	<2	110	33	2	<2.0	850	100

Well name	Antimony, dissolved (ug/L as Sb)	Aluminum, dissolved (ug/L as Al)	Selenium, dissolved (ug/L as Se)	Lithium, dissolved (ug/L as Li)
TW-1	—	—	6	340
TW-2	—	—	9	340
TW-3	—	—	10	330
TW-4	—	—	—	—
	<1	60	<1	—

Table 9.--Organic and synthetic chemical compounds in water from wells in the vicinity of the Hazardous Waste Disposal Facility, White Sands Missile Range

[ug/L, micrograms per liter; <, less than; —, no data]

Well name	Well number	Date	Time	Dichlorobromomethane total (ug/L)	Carbontetrachloride total (ug/L)	1,2-Dichloroethane total (ug/L)	Bromoform total (ug/L)	Chlorodibromomethane total (ug/L)	Chloroform total (ug/L)
TW-1	22S.06E.16.233	01-04-89	1400	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TW-2	22S.06E.16.234	01-10-89	1450	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TW-3	22S.06E.16.234A	01-12-89	1420	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TW-4	22S.06E.16.412	09-27-89	1130	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		09-27-89	1330	—	—	—	—	—	—

Well name	Toluene total (ug/L)	Benzene total (ug/L)	Acenaphthylene total (ug/L)	Acenaphthene total (ug/L)	Anthracene total (ug/L)	Benzo B fluoranthene total (ug/L)	Benzo K fluoranthene total (ug/L)	Benzo-a-pyrene total (ug/L)	Bis 2-chloroethyl ether total (ug/L)	Bis (2-chloroethoxy methane total (ug/L)
TW-1	0.30	<0.20	—	—	—	—	—	—	—	—
TW-2	0.60	<0.20	—	—	—	—	—	—	—	—
TW-3	1.30	<0.20	—	—	—	—	—	—	—	—
TW-4	<0.20	<0.20	—	—	—	—	—	—	—	—
	—	—	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<5.0	<5.0

Well name	Bis (2-chloroisopropyl) ether total (ug/L)	N-butyl benzyl phthalate total (ug/L)	Chlorobenzene total (ug/L)	Chloroethane total (ug/L)	Chrysene total (ug/L)	Diethyl phthalate total (ug/L)	Dimethyl phthalate total (ug/L)	Ethylbenzene total (ug/L)	Fluoranthene total (ug/L)
TW-1	—	—	<0.20	<0.20	—	—	—	<0.20	—
TW-2	—	—	<0.20	<0.20	—	—	—	<0.20	—
TW-3	—	—	<0.20	<0.20	—	—	—	<0.20	—
TW-4	—	—	<0.20	<0.20	—	—	—	<0.20	—
	<5.0	<5.0	—	—	<10.0	<5.0	<5.0	—	<5.0

Table 9.--Organic and synthetic chemical compounds in water from wells in the vicinity of the Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Well name	Well number	Date (ug/L)	Time (ug/L)	Fluorene total (ug/L)	Hexachlorocyclopentadiene total (ug/L)	Hexachloroethane total (ug/L)	Indeno (1,2,3-CD) pyrene total (ug/L)	Isophorone total (ug/L)	Methylbromide total (ug/L)
TW-1	22S.06E.16.233	01-04-89	1400	—	—	—	—	—	<0.20
TW-2	22S.06E.16.234	01-10-89	1450	—	—	—	—	—	<0.20
TW-3	22S.06E.16.234A	01-12-89	1420	—	—	—	—	—	<0.20
TW-4	22S.06E.16.412	09-27-89	1130	—	—	—	—	—	<0.20
		09-27-89	1330	<5.0	<5.0	<5.0	<10.0	<5.0	—

Well name	Methylchloride total (ug/L)	Methylene chloride total (ug/L)	N-Nitrosodi-N-propylamine total (ug/L)	N-Nitrosodiphenylamine total (ug/L)	N-Nitrosodimethylamien total (ug/L)	Nitrobenzene total (ug/L)	Parachlorometa cresol total (ug/L)	Phenanthrene total (ug/L)	Pyrene total (ug/L)	Tetrachloroethylene total (ug/L)
TW-1	<0.20	<0.20	—	—	—	—	—	—	—	<0.20
TW-2	<0.20	<0.20	—	—	—	—	—	—	—	<0.20
TW-3	<0.20	<0.20	—	—	—	—	—	—	—	<0.20
TW-4	<0.20	<0.20	—	—	—	—	—	—	—	<0.20
	—	—	<5.0	<5.0	<5.0	<5.0	<30.0	<5.0	<5.0	—

Well name	Trichlorofluoromethane total (ug/L)	1,1-Dichroroethane total (ug/L)	1,1-Dichloroethylene total (ug/L)	1,1,1-Trichloroethane total (ug/L)	1,1,2-Trichloroethane total (ug/L)	1,1,2,2 Tetrachloroethane total (ug/L)	Benzogh I peryl enel,12 benzoperylene total (ug/L)	Benzo A anthracenel,2-benzanthracene total (ug/L)	1,2-Dichlorobenzene total (ug/L)	1,2-Dichloropropane total (ug/L)
TW-1	<0.20	<0.20	<0.20	<02.0	<0.20	<0.20	—	—	<0.20	<0.20
TW-2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	—	—	<0.20	<0.20
TW-3	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	—	—	<0.20	<0.20
TW-4	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	—	—	<5.0	—
	—	—	—	—	—	—	<10.0	<5.0	<0.2	<0.20

Table 9.--Organic and synthetic chemical compounds in water from wells in the vicinity of the Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Well name	Well number	Date	Time	Pentachlorophenol total (ug/L)	Bis(2-ethylhexyl) phthalate total (ug/L)	Di-N-butyl phthalate total (ug/L)	Vinyl chloride total (ug/L)	Trichloroethylene total (ug/L)	Aldrin, dissolved (ug/L)
TW-1	22S.06E.16.233	01-04-89	1400	—	—	—	<0.20	<0.20	—
TW-2	22S.06E.16.234	01-10-89	1450	—	—	—	<0.20	<0.20	—
TW-3	22S.06E.16.234A	01-12-89	1420	—	—	—	<0.20	<0.20	—
TW-4	22S.06E.16.412	09-27-89	1130	—	—	—	<0.20	<0.2	<0.01
		09-27-89	1330	<30.0	<5.0	<5.0	—	—	—

Well name	Lindane, dissolved (ug/L)	Chlordane, dissolved (ug/L)	DDD, dissolved (ug/L)	DDE, dissolved (ug/L)	DDT, dissolved (ug/L)	Dieldrin dissolved (ug/L)	Endrin, dissolved (ug/L)	Toxaphene, dissolved (ug/L)	Heptachlor, dissolved (ug/L)	Heptachlor epoxide, dissolved (ug/L)
TW-1	—	—	—	—	—	—	—	—	—	—
TW-2	—	—	—	—	—	—	—	—	—	—
TW-3	—	—	—	—	—	—	—	—	—	—
TW-4	0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<1.0	<0.01	—
	—	—	—	—	—	—	—	—	—	<0.01

Well name	PCB, dissolved (ug/L)	Malathion, dissolved (ug/L)	Parathion, dissolved (ug/L)	Diazinon, dissolved (ug/L)	Methyl parathion, dissolved (ug/L)	Hexachlorobenzene total (ug/L)	Hexachlorobutadiene total (ug/L)	2,4-D, dissolved (ug/L)	2,4,5-T, dissolved (ug/L)	Mirex, dissolved (ug/L)
TW-1	—	—	—	—	—	—	—	—	—	—
TW-2	—	—	—	—	—	—	—	—	—	—
TW-3	—	—	—	—	—	—	—	—	—	—
TW-4	<0.1	<0.01	<0.01	<0.01	<0.01	<1.0	<1.0	<0.01	<0.01	<0.01
	—	—	—	—	—	—	—	—	—	—

Table 9.--Organic and synthetic chemical compounds in water from wells in the vicinity of the Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Well name	Well number	Date	Time	1,2-Transdi chloro-ethene total (ug/L)	1,2,4-Tri-chloro-benzene total (ug/L)	1,2,5,6-Dibenz-anthra-cene total (ug/L)	1,3-Di-Chloro-propene total (ug/L)	1,3-Di-Chloro-benzene total (ug/L)	1,4-Di-Chloro-benzene total (ug/L)
TW-1	22S.06E.16.233	01-04-89	1400	<0.20	—	—	<0.20	<0.20	<0.20
TW-2	22S.06E.16.234	01-10-89	1450	<0.20	—	—	<0.20	<0.20	<0.20
TW-3	22S.06E.16.234A	01-12-89	1420	<0.20	—	—	<0.20	<0.20	<0.20
TW-4	22S.06E.16.412	09-27-89	1130	<0.20	—	—	<0.20	<0.20	<0.20
		09-27-89	1330	—	<5.0	<10.0	—	<5.0	<5.0

Well name	2-Chloro-ethyl-vinyl-ether total (ug/L)	2-Chloro-naph-thalene total (ug/L)	2-Chloro-phenol total (ug/L)	2-Nitro-phenol total (ug/L)	Di-N-octyl phthal-ate total (ug/L)	2,4-Di-chloro-phenol total (ug/L)	2,4-Di-methyl-phenol total (ug/L)	2,4-Di-nitro-toluene total (ug/L)	2,4,-Di-nitro-phenol total (ug/L)	2,4,6-Tri-chloro-phenol total (ug/L)
TW-1	<0.20	—	—	—	—	—	—	—	—	—
TW-2	<0.20	—	—	—	—	—	—	—	—	—
TW-3	<0.20	—	—	—	—	—	—	—	—	—
TW-4	<0.20	—	—	—	—	—	—	—	—	—
	—	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0	<20.0	<20.0

Well name	2,6-Di-nitro-toluene total (ug/L)	4-Bromo-phenyl phenyl ether total (ug/L)	4-Chloro-phenyl phenyl ether total (ug/L)	4-Nitro-phenol total (ug/L)	4,6-Dinitro-ortho-cresol total (ug/L)	Di-Chloro-di-fluoro-methane total (ug/L)	Pheno-(C6H-5OH) total (ug/L)	Naphth-alene total (ug/L)	Trans-1,3-di-chloro-propene total (ug/L)	Cis 1,3-di-chloro-propene total (ug/L)
TW-1	—	—	—	—	—	<0.20	—	—	<0.20	<0.20
TW-2	—	—	—	—	—	<0.20	—	—	<0.20	<0.20
TW-3	—	—	—	—	—	<0.20	—	—	<0.20	<0.20
TW-4	—	—	—	—	—	<0.20	—	—	<0.20	<0.20
	<5.0	<5.0	<5.0	<30.0	<30.0	—	<5.0	<5.0	—	—

Table 9.--Organic and synthetic chemical compounds in water from wells in the vicinity of the Hazardous Waste Disposal Facility, White Sands Missile Range--Conclude

Well name	Well number	Date	Time	Silvex, dis-solved (ug/L)	Styrene total (ug/L)	1,2-Dibromo ethane water whole total (ug/L)	Xylene total water whole tot rec (ug/L)	Tri-thion, dis-solved (ug/L)	Methy tri-thior dis-solve (ug/l
TW-1	22S.06E.16.233	01-04-89	1400	—	<0.2	<0.2	<0.2	—	—
TW-2	22S.06E.16.234	01-10-89	1450	—	<0.2	<0.2	<0.2	—	—
TW-3	22S.06E.16.234A	01-12-89	1420	—	<0.2	<0.2	<0.2	—	—
TW-4	22S.06E.16.412	09-27-89	1130	<0.01	<0.2	<0.2	<0.2	<0.01	<0.0
		09-27-89	1330	—	—	—	—	—	—

Well name	Ethion, dis-solved (ug/L)	Per-thane, dis-solved (ug/L)	Metho oxy-chlor, dis-solved (ug/L)	Endo-sulfan, dis-solved (ug/L)	2,4-DP, dis-solved (ug/L)	PCN, dis-solved (ug/L)
TW-1	—	—	—	—	—	—
TW-2	—	—	—	—	—	—
TW-3	—	—	—	—	—	—
TW-4	<0.01	<0.10	<0.01	<0.01	<0.01	<0.10
	—	—	—	—	—	—

Table 10.--Laboratory analytical methods

Parameter	Method
Specific conductance (Field Test)	Electrometric
pH (Field Test)	Electrometric, glass electrode
Alkalinity	Electrometric titration
Total dissolved solids	Gravimetric
Common cations	Atomic absorption spectrometric
Common anions	Colorimetric
Nutrients	Colorimetric
Trace elements (metals)	Atomic absorption spectrometric
Boron	Colorimetric
Chlorophenoxy acids	Gas chromatographic (O-7105-83)
Organochlorine and organophosphorous compounds	Gas chromatographic (O-1104-83)
Base/neutral extractable compounds	Gas chromatographic/mass spectrometric (O-3118-83)
Purgeable organic compounds	Gas chromatographic/mass spectrometric, purge and trap (O-3115-83)

Method Sources:

Fishman, M.J., and Friedman, L.C., eds., 1989, Methods for determination of inorganic substances in water and fluvial sediments: U.S. Geological Survey Techniques of Water-Resources Investigations, book 5, chap. A1, 554 p.

Wershaw, R.L., and others, eds., 1987, Methods for the determination of organic substances in water and fluvial sediments: U.S. Geological Survey Techniques of Water-Resources Investigations, book 5, chap. A3, 80 p.

Table 11.--Summary of maximum contaminant levels for selected water-quality constituents and properties for public water-supply systems[1/]

[—, no data; ug/L, micrograms per liter; mg/L, milligrams per liter]

Constituent	Maximum contaminant level[2/]	Secondary maximum contaminant level[3/]
Inorganic chemicals and related properties		
pH (standard units)	—	6.5 - 8.5
Arsenic (As)	50 ug/L	—
Barium (Ba)	1,000 ug/L	—
Cadmium (Cd)	10 ug/L	—
Chloride (Cl)	—	250 mg/L
Chromium (Cr)	50 ug/L	—
Copper (Cu)	—	1,000 ug/L
Iron (Fe)	—	300 ug/L
Lead (Pb)	50 ug/L	—
Manganese (Mn)	—	50 ug/L
Mercury (Hg)	2 ug/L	—
Nitrate (as N)	10.0 mg/L	—
Selenium (Se)	10 ug/L	—
Silver (Ag)	50 ug/L	—
Sulfate (SO_4)	—	250 mg/L
Zinc (Zn)	—	500 mg/L
Dissolved solids	—	500 mg/L
Fluoride (F)	4.0 mg/L	2 mg/L
Organic chemicals		
Endrin	0.2 ug/L	—
Lindane	4 ug/L	—
Methoxychlor	100 ug/L	—
Toxaphene	5 ug/L	—
2,4-D	100 ug/L	—
Silvex	10 ug/L	—
Volatile organic compounds[4/]		
Benzene	5 mg/L	—
Carbon Tetrachloride	5 mg/L	—
p-Dichlorobenzene	75 mg/L	—
1,2-Dichloroethane	5 mg/L	—
1,1-Dichloroethylene	7 mg/L	—
1,1,1-Trichloroethane	200 mg/L	—
Trichloroethylene	5 mg/L	—
Vinyl chloride	2 mg/L	—

1/ Public water system.—A system for the provision of piped water to the public for human consumption, if such system has at least 15 service connections or regularly serves at least 25 individuals daily at least 60 days out of the year.

2/ Maximum contaminant level.—The maximum permissible level of a contaminant in water that is delivered to the free-flowing outlet of the ultimate user of a public water system. Maximum contaminant levels are those levels set by the U.S. Environmental Protection Agency (1986a) in the National Primary Drinking Water Regulations. These regulations deal with contaminants that may have a substantial direct impact on the health of the consumer and are enforceable by Federal law.

3/ Secondary maximum contaminant level.—The advisable maximum level of a contaminant in water that is delivered to a free-flowing outlet of the ultimate user of a public water system. Secondary maximum contaminant levels are those levels proposed by the U.S. Environmental Protection Agency (1986b) in the National Secondary Drinking Water Regulations. These regulations deal with contaminants that may not have a substantial direct impact on the health of the consumer, but their presence in excessive quantities may affect the aesthetic qualities of the water and may discourage the use of a drinking-water supply by the public.

4/ Proposed maximum contaminant levels (U.S. Environmental Protection Agency, 1986a). The maximum contaminant level for tetrachloroethylene will be proposed later.

sulfate concentrations exceeded the U.S. Environmental Protection Agency (1986b) secondary maximum contaminant levels of 250 milligrams per liter for drinking water (tables 7 and 11), which is typical for the area.

The manganese concentration exceeded the secondary maximum contaminant level of 50 micrograms per liter in 2 of the 4 analyses with 160 micrograms per liter in water from test well TW-3 and 110 micrograms per liter in water from test well TW-4. Zinc exceeded the secondary maximum contaminant level of 500 micrograms per liter in 3 of the 4 analyses with 510 micrograms per liter in water from test well TW-1, 710 micrograms per liter in water from test well TW-2, and 1,200 micrograms per liter in water from TW-3. Selenium was less than the maximum contaminant level of 10 micrograms per liter (U.S. Environmental Protection Agency, 1986a) in water from test wells TW-1 and TW-2; selenium was detected at a concentration of 10 micrograms per liter in test well TW-3 and was not detected in test well TW-4 (tables 8 and table 11). The concentration of manganese and zinc in water from the upgradient wells signifies the presence of these metals, possibly in the bolson-fill deposits.

Analyses of organic and synthetic chemical compounds indicated detectable concentrations of toluene in water from test wells TW-1, TW-2, and TW-3 (table 9), all upgradient from the landfill. Detectable concentrations of toluene were 0.30 microgram per liter in water from test well TW-1, 0.60 microgram in water from test well TW-2, and 1.30 micrograms per liter in water from test well TW-3. Toluene was not detected in water from test well TW-4. Toluene is a common solvent used in laboratories and in glues. Concentrations of toluene might be traced to contamination of the water sample in the laboratory

environment or to the glue used to seal the well casing as was used in test wells TW-1, TW-2, and TW-3.

Lindane was detected in water from test well TW-4 at a concentration of 0.01 microgram per liter (table 9), the minimum laboratory detection limit. The maximum contaminant level of lindane is 4 micrograms per liter (table 11). Water samples from the other test wells were not analyzed for lindane. All other analyses for organic and synthetic chemical compounds indicated no detection.

SUMMARY

An investigation of geohydrologic conditions of the Hazardous Waste Disposal Facility on the White Sands Missile Range was conducted to aid in evaluating the potential for migration of hazardous chemical wastes, buried in the landfill, through the uppermost aquifer to nearby water-supply wells or to surface water. The investigation included: (1) a compilation of information on the characteristics of the chemical compounds buried in the landfill; (2) a water balance of precipitation, evaporation, surface-water inflow and outflow, and ground-water recharge and discharge; (3) identification of selected geohydrologic characteristics of the unsaturated zone and the shallow aquifer; and (4) identification of the quality of ground water in the vicinity of the facility.

About 250 various types of identified chemical compounds and 126 unknown chemical compounds and other waste materials were buried in six separate burial cells at the landfill from April 1972 to October 1981. The burial sites were excavated and the contents removed in 1989-90. Information about the molecular formula, molecular weight, water solubility, and health effects for a number of the chemical compounds were summarized.

Mean annual precipitation at the Hazardous Waste Disposal Facility is about 11.45 inches with about 50 percent falling in July, August, and September. Annual potential evaporation at the facility is estimated at 65 inches, more than 5 times the precipitation. Precipitation is the source of natural recharge to the ground-water system at the facility. Most precipitation at the facility is evaporated except during periods of intense precipitation. When precipitation is greater than potential evaporation, recharge to the ground-water system might occur.

A long-term recharge rate of 0.019 inch per year was estimated for the Hazardous Waste Disposal Facility. The estimate is based on the assumptions that the movement of soil water is vertical and the medium is isotropic. Th bolson-fill is heterogeneous and the medium is anisotropic. The rate of flo of water through the unsaturated zone is affected by the less permeable clay lenses resulting in limited vertical movement.

The Hazardous Waste Disposal Facility is underlain by unconsolidated Quaternary alluvium and bolson-fill deposits of interbedded clay, silt, sand and gravel. The thickness of these deposits exceeds 6,000 feet about 4 mile west of the facility.

Depth to water at the Hazardous Waste Disposal Facility is 230 feet bel the land surface; the water table slopes in a south-southwest direction at about 1 foot per mile in the area of the facility and at about 7 feet pe mi northwest of the facility. Four test wells are located in the vicinity of t facility; test wells TW-1, TW-2, and TW-3 were drilled during a previous stu upgradient of the landfill. Test well TW-4 was drilled during this study downgradient of the facility. Each test well penetrated clay zones with dominant clay zones penetrated in test wells TW-2, TW-3, and TW-4. Transmissivity values calculated from a constant-rate aquifer test conducte in test well TW-4 ranged from 1,000 to 1,300 feet squared per day. Specifi capacity of the aquifer in the area tested was 2.10 gallons per minute per foot of drawdown. In calculating hydraulic conductivity, it was assumed th the water-yielding zone was directly adjacent to the 80 foot screen of the pumped well, test well TW-4. Using the estimated transmissivity values fro 1,000 to 1,300 feet squared per day, the estimate of the average hydraulic conductivity for the assumed water-producing zone ranged from 12.5 to 16.3 feet per day.

Ground water in the area typically contains concentrations of dissolved solids ranging from 10,000 to 35,000 milligrams per liter; the water is considered very saline. There are no water-supply wells yielding potable water in the area of the facility. Chemical analyses of the ground water at the facility indicated concentrations of 110-160 micrograms per liter manganese and 510-1,200 micrograms per liter zinc in water from test wells upgradient from the landfill. Concentrations of toluene ranging from 0.30-1.30 micrograms per liter were detected in water from test wells upgradient from the landfill. Toluene might be traced to contamination of the water sample by laboratory environment or where glue containing toluene was used to seal the well casing sections as was done in test wells TW-1, TW-2, and TW-3. Lindane was detected at the detection limit of 0.01 microgram per liter in water from test well TW-4. The recommended limit of lindane in public-water supplies is 4 micrograms per liter.

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SUPPLEMENTAL INFORMATION

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missle Range

[--, no data]

EXPLANATION

Molecular formula: Elements in the molecular formula are listed according to the Hill convention (C,H, then other elements in alphabetical order) (Budavari and others, 1989).

CAS number: Chemical Abstracts Service registry number.

Molecular weight: The sum of the relative atomic masses of the elements in a molecule (Lucius and others, 1989). Molecular weight is provided for chemical compounds having a known specific structure.

Water solubility: The ability of the chemical compound to be dissolved in water using weight percentages.

Source of data: A, Budavari and others, 1989; B, Verschueren, 1983; C, Buckingham, 1982; D, U.S. Environmental Protection Agency, 1988a; E, Lucius and others, 1989.

Abbreviations: g, gram; mL, milliliter; °C, degrees Celsius; <, less than; >, greater than; umoles/L, micromoles per liter; mg, milligrams; %, percent.

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Acacia	--	1962147	240,000	Almost completely soluble in twice its weight in water	--	A	--
Acacia Powder	--	--	--	--	--	--	See Acacia
Acetamide	C_2H_5NO	60355	59.07	1 g dissolves in 0.5 mL water	Expected carcinogen; mild irritant	A,C	Solubilizer, renders sparingly soluble substances more soluble in water
Acidic Copper solution	--	--	--	--	--	--	See Copper
Acidic Rhodium solution	--	--	--	--	--	--	See Rhodium
Aldrin	$C_{12}H_8Cl_6$	309002	364.93	Insoluble	Poisonous, toxic	A	--
Alizarin	$C_{14}H_8O_4$	72480	240.20	Soluble in 300 parts boiling water	--	A	Alizarin is synthesized from 2-athraquinonesulfonic acid sodium salt
Alizarin Cyanone Green F	$C_{28}H_{20}N_2$-$Na_2O_8S_2$	4403901	622.58	--	--	A	Green powder
Alizarin Cyanone green dye	--	--	--	--	--	--	See Alizarin Cyanone Green F
Alizarin Red	--	--	--	--	--	--	Synonym for Alizaron Pigment Red; See Alizaron
Alizarin Sodium Monosulfonate	--	--	--	--	--	--	See Alizarin and Sodium Monosulfide
Allylacetate	--	--	--	--	--	--	--
1-Allyl-2-thiourea	$C_4H_8N_2S$	109579	116.19	Soluble in about 30 parts water	--	A	Synonym for Thiosinamine
Alodine	$C_7H_5NO_3$	--	155.15	Slightly soluble	--	A	--
3-(α-acetonyl[illegible]yl)-4-hydrox[illegible] coumarin	$C_{19}H_{16}O_4$	81812	308.32	Practically insoluble	Toxic	A	Synonym for Warfarin

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Alpha isomer of 2-Carbomethoxy-1-methylvinyl dimethyl phosphate	--	--	--	--	--	--	See 2-Carbomethoxy-1-methylvinyl dimethyl phosphate
Aluminum Chloride	$AlCl_3$	7446700	133.34	1 g dissolves in 0.9 mL water	Strong irritant in anhydrous form	A	Explosive violence when combined with water
Aluminum Potassium Sulfate	$AlKO_8S_2$	10043671	258.20	1 g dissolves in 20 mL cold or 1 mL boiling water, usually incomplete	--	A	Used in purifying water
Aluminum Quinolate	--	--	--	--	--	--	--
Aluminum Sulfate	$Al_2O_{12}S_3$	10043013	342.14	Soluble in 1 part water	--	A	--
Amberlite IR-120 ion exchange resin	--	9079258	--	--	--	A	Synthetic, high capacity cation and anion exchange resins
5-Amino-2-naphthalenesulfonic acid	$C_{10}H_9NO_3S$	119799	223.25	Soluble in 1000 parts water	--	A	Synonym for Cleve's Acid
Ammonium Chloride	ClH_4N	12125029	53.50	22.9% soluble at 0° C to 39.6% at 80° C	--	A	Hydrochloric acid and sodium chloride decrease solubility in water
Ammonium Hydrosulfide	H_5NS	12124991	51.11	Freely soluble	Irritant, toxic	A	Synonym for Ammonium Bisulfide
Ammonium Molybdate	$H_{24}Mo_7N_6O_{24}$	12027677	1,163.89	Soluble in 2.3 parts water	--	A	--
Ammonium Molybdate solution	--	--	--	--	--	--	See Ammonium Molybdate
Amorphous Phosphorus	--	--	--	--	--	--	See Phosphorus
Amorphous Red Phosphorus	--	--	--	--	--	--	See Red Phosphorus
Aniline	C_6H_7N	62533	93.12	1 g dissolves in 28.6 mL water	Poisonous; intoxication may occur from inhalation, ingestion or, cutaneous absorption	A	Combustible; volatile with steam

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Anthracene	$C_{14}H_{10}$	120127	178.22	Insoluble	--	A	--
Arecoline Hydrobromide	$C_8H_{14}BrNO_2$	300083	236.11	1 g dissolves in about 1 ml water	--	A	--
Aromatic petroleum derivative solvent	--	--	--	--	--	--	--
Arsenic	As	7440382	74.92	Insoluble	Very toxic	A	--
Arsenic contaminated Chromic Acid solution	--	--	--	--	--	--	See Arsenic and Chromic Acid solution
Arsenic Trioxide	As_2O_3	1327533	197.82	Slowly soluble in cold water; soluble in 15 parts boiling water	Intensely poisonous; corrosive to skin	A	Primary material for all arsenic compounds
Arsenic Trioxide solution	--	--	--	--	--	--	See Arsenic Trioxide
Ascarite	HNaO	1310732	40.01	1 g dissolves in 0.9 mL water; 0.3 mL boiling water	Corrosive to all tissues; emetic, prostration and collapse upon ingestion	A,D	Synonym of Sodium Hydroxide
Ascarite Silica	--	--	--	--	--	--	See Ascarite and Sodium Silicate
Azodrin	$C_7H_{14}NO_5P$	6923224	223.16	Miscible with water	--	A	Synonym for Monocrotophos
Barium	Ba	7440393	137.33	--	All water or acid soluble barium compounds are poisonous	A	--
Barium Chloranilate	--	--	--	--	--	--	See Barium and Chloranilic Acid
Barium Chloride	$BaCl_2$	10361372	208.27	Very soluble	Poisonous	A	--
Barium Diphenylamine Sulfonate	--	--	--	--	--	--	See m-Phenylsulfanilic Acid, Barium salt

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Bay 9015	--	--	--	--	--	--	Animal drug; See Bayer 9015
Bayer Aspirin	--	--	--	--	--	--	--
Bayer 9015	$C_{12}H_6Cl_8N_2O_6$	--	345.09	--	--	A	Synonym for Menichlopholan
Benzenearsonic Acid	$C_6H_7ASO_3$	98055	202.03	Soluble in 40 parts water	--	A	--
Benzil	$C_{14}H_{10}O_2$	134816	210.22	Insoluble	--	A	--
Benzoic Acid	$C_7H_6O_2$	65850	122.12	Sparingly water soluble. Solubility increases with alkaline substances	Mild irritant	A,C	Volatile with steam
1,1-Bis(chlorophenyl-)-2,2,2-trichloroethanol	$C_{14}H_9Cl_5O$	115322	370.47	Insoluble	--	A	Synonym for Dicofol
2,4-Bis(isopropylamino)-6-methylthio-s-triazine	$C_{10}H_{19}N_5S$	7287196	241.37	Solubility in water at 20° C: 48 ppm	--	A	Synonym for Prometryn
1,4 Bis-trichloromethylbenzol	$C_8H_4Cl_6$	68360	312.86	--	--	A	--
Black dye	--	--	--	--	--	--	--
Black grease							
Boric Acid	BH_3O_3	10043353	61.84	1 g dissolves in 18 mL cold water, 4 mL boiling water	Toxic; death from ingestion of 5 g in infants and 5-20 g in adults	A	--
Bromobenzene (mono)	C_6H_5Br	108861	157.02	Practically insoluble	Irritant	A	Monobromobenzene
Bromonaphthalene	--	--	--	--	--	--	See 1-Bromonaphthalene or 2-Bromonaphthalene
α-Bromonaphthalene	$C_{10}H_7Br$	90119	207.07	Slightly soluble	--	A	Volatile with steam

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
1-Bromonaphthalene	$C_{10}H_7Br$	90119	207.07	Slightly soluble	--	A	Volatile with steam
2-Bromonaphthalene	$C_{10}H_7Br$	580132	207.09	Slightly soluble	--	A	--
Bromothymol Blue	$C_{27}H_{28}Br_2O_5S$	76595	624.39	Sparingly soluble	--	A	--
Brucine	$C_{23}H_{26}N_2O_4$	357573	394.47	1 g dissolves in 1320 ml water	Very poisonous	A	--
Bunamidine Hydrochloride	$C_{23}H_{39}ClN_2O$	1055556	419.05	--	--	A	--
2,3-Butanedione	$C_4H_6O_2$	431038	86.09	Soluble in about 4 parts water	--	A,C	Synonym for Diacetyl; highly flammable
N-Butyl-n-ethyl-α,α,α-trifluoro-2,6-dinitro-p-toluidine	$C_{13}H_{16}F_3N_3O_4$	1861401	335.29	Solubility in water at 25° C: < 1 mg/L	--	A	Synonym for Benfluralin
Cadmium	Cd	7440439	112.41	Insoluble	Carcinogen, toxic, irritant	A	--
Cadmium Propionate	--	--	--	--	--	--	See Cadmium
Calcium Hydroxide	CaH_2O_2	1305620	74.10	Slightly soluble	--	A	--
Calcium Oxide	CaO	1305788	56.08	Water soluble forming $Ca(OH)_2$ and generating large quantity of heat	Strong caustic; causes severe irritation	A	--
Captan	$C_9H_8Cl_3NO_2S$	133062	300.57	Practically insoluble	Toxic	A	--
Carbaryl insecticide (1-naphthyl-N-methyl-carbamate)	--	--	--	--	--	--	See Carbaryl(1-naphthy-N-methyl-carbamate)
Carbaryl(1-na[illegible]yl-N-methyl-c[illegible]ate)	$C_{12}H_{11}NO_2$	63252	201.22	120 mg dissolves in 1 liter water at 30° C	Toxic	A	--

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Carbophenothion	$C_{11}H_{16}Cl-O_2PS_3$	786196	342.85	Practically insoluble	Toxic	A	--
Carbopol	--	9007209	--	Reacts with fatty amines to form thick and stable emulsions of oils in water	--	A	Synonym for Carboxypolymethylene; highly ionic and slightly acetic
Carbopol resin	--	--	--	--	--	--	See Carbopol
Cellulose	$(C_6H_{10}O_5)n$	9004346	--	Practically insoluble	--	A	--
Cellulose Gum	--	--	--	--	--	--	See Cellulose
Charcoal	--	--	--	--	--	--	--
Chloranilic Acid	$C_6H_2Cl_2O_4$	87887	208.99	--	--	A	Reacts with metal cations to form stable salts
Chlordane	$C_{10}H_6Cl_8$	57749	409.80	Insoluble	Poisonous; irritant	A	--
Chlorine	Cl	7782505	35.45	Soluble	Irritant, toxic	A	--
Chlorine solution in water	--	--	--	--	--	--	See Chlorine
Chloroacetic Acid Sodium salt	$C_2H_2ClNaO_2$	79118	116.48	85 g dissolves in 100 ml water at 20° C	Irritant	A	--
Chloroform	$CHCl_3$	67663	119.38	1 mL dissolves in 200 mL water at 25° C	Carcinogen	A,B,C	--
1-Chloronaphthalene	$C_{10}H_7Cl$	90131	162.61	--	--	A	Volatile with steam
Cholin Esterase	--	9001085	--	--	--	A	--
Cholin Esterase inhibitor	--	--	--	--	--	--	See Choline Esterase
Chromate coating	--	--	--	--	--	--	See Chromium
Chromic Acid solution	--	--	--	--	--	--	See Chromic Hydroxide

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Chromic Hydroxide	CrH_3O_3	1308141	103.03	Practically insoluble	--	A	--
Chromic Oxide	Cr_2O_3	1308389	152.02	Practically insoluble	Possible irritant	A	--
Chromic Sulfate	$Cr_2O_{12}S_3$	10101538	392.20	Practically insoluble	--	A	Basic chromic sulfates of type $Cr(OH)SO_4.nH_2O$ are readily soluble in water
Chromium	Cr	7440473	51.996	--	Irritant, carcinogen	A	--
Chromium Oxide	--	--	--	--	--	--	See Chromic Oxide
Chromium Sulfate	--	--	--	--	--	--	See Chromic Sulfate
Citric Acid	$C_6H_8O_7$	77929	192.12	Very soluble	--	A,C	--
Clioxanide	$C_{13}H_{10}Cl-I_2NO_3$	14437413	541.54	--	--	A	--
Colchicine	$C_{22}H_{25}NO_6$	64868	399.43	1 g dissolves in 22 mL water	Highly toxic; irritant, expected carcinogen and teratogen	A,C	--
Congo Red	$C_{32}H_{22}N_6-Na_2O_6S_2$	573580	696.67	Soluble	--	A	--
Copper	Cu	7440508	63.546	--	--	A	--
Copper Sulfate	--	--	--	--	--	--	See Cupric Sulfate
Copper(ous) Cyanide	--	--	--	--	--	--	See Cuprous Cyanide
Crotonaldehyde	C_4H_6O	4170303	70.09	18.1 g dissolves in 100 g water at 20° C	Strong irritant	A	--
Cupric Sulfate	$CuSO_4$	7758987	159.61	Soluble	Strong irritant	A	--
Cuprous Cyanide	CuCN	544923	89.56	Practically insoluble	Poison	A	--

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
2,4-D	$C_8H_6Cl_2O_3$	94757	221.04	Almost insoluble	Moderately toxic; irritation to eyes and causes gastrointestinal disturbances	A,C	--
DDT	$C_{14}H_9Cl_5$	50293	354.50	Practically insoluble	Poisoning may occur by ingestion or by absorption through the skin or respiratory tract; death occurs in 2 to 24 hours; carcinogin	A	--
Diazinon	$C_{12}H_{21}N_2O_3PS$	333415	304.36	0.004% water soluble at 20° C	Teratogen; highly toxic; cholinesterase inhibitor	A,C	--
2,4-Diaminophenol Dihydrochloride	$C_6H_{10}ClN_2$	95863	--	Solubility in water at 10°C: 27g/100 mL	--	A	--
3,6 Dichloro-o-anisic acid	$C_8H_6Cl_2O_3$	1918009	221.04	Very slightly soluble	--	A	Synonym for Dicamba
1,1-Dichloro 2,2 bis (p-ethylphenyl ethane)	$C_{16}H_{20}CL_2$	72560	307.27	Practically insoluble	Toxic	A	--
2,5-Dichloro-3,6-dihydroxy-p-benzoquinone Mercury derivative	--	--	--	--	--	--	--
2,2-Dichlorovinyl dimethyl phosphate	$C_4H_7Cl_2O_4P$	62737	220.98	About 1g/100 mL	Toxic	A,D	Synonym for Dichlorous
Dieldrin	$C_{12}H_8Cl_6O$	60571	380.93	Practically insoluble	Highly toxic; readily absorbed through skin	A,C	--
Diethylaniline	$C_{10}H_{13}N$	91667	149.23	1 g dissolves in 70 mL water at 12°C	--	A	Volatile with steam
N-Diethylaniline	--	--	--	--	--	--	See Diethylaniline
O,O-Diethylo-(2-isopropyl-4-methyl-6-pyrinidinyl)phosphorothioate (Diazinone)	--	--	--	--	--	A	Synonym for Diazinone; see Diazinone
1,5-Dihydroxy-anthraquinone	$C_{14}H_8O_4$	117124	240.20	Slightly soluble	--	A,C	Synonym for Anthrarufin

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
4,5-Dihydroxy-2,7-naphthalene Disulfonic Acid	$C_{10}H_8O_8S_2$	148254	320.29	Soluble	--	A,C	--
4,5-Dihydroxy-2,7-napthalene Disulfonic acid Disodium salt	--	--	--	--	--	A	See 4,5-Dihydroxy-2,7-Naphthalene-Disulfonic Acid
Diiodomethane	CH_2I_2	75116	267.87	Soluble in about 70 parts water	--	A	Synonym for Methylene Iodide
Dimethamine salt of 3,6-dichloro-o-anisic acid	--	--	--	--	--	A	See 3,6-Dichloro-o-anisic acid
Dimethylamine salts of 2,4-dichlorophenoxy acetic acid	--	94757	--	Soluble	Moderately toxic; irritant	A,C	Amine salts of 2,4-D; see also 2,4-D
p-Dimethylamino-benzalrhodanine	$C_{12}H_{12}N_2OS_2$	536174	264.36	Practically insoluble	--	A	--
p-Dimethylaminobenzophenone	$C_{15}H_{15}NO$	530449	225.28	Insoluble water	--	A	--
p-(p-Dimethylamino-phenylazo) Benzene arsonic Acid	--	--	--	--	--	A	See p-Dimethylaminobenzophenone and Benzenearsonic Acid
O,O-Dimethyl S-[4 oxo-1,2,3,-benzo-triazin-3(4H)-yl-methyl] phosphoro-dithioate	--	--	--	--	--	A	See Phosphorodithioic Acid
O,O-Dimethyl S-[4 oxo-1,2,3-benzo-tria-3(4H)yim[illegible]yl] phosphorodit[illegible]	--	--	--	--	--	A	See Phosphorodithioic Acid
O,O Dimethyl-(2-	--	--	--	--	--	A	See O,O-Dimethyl O-(2-chloro-4-nitrophenyl)phosphorothioate

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
N,N Dimethyl-2,2 diphenylacetamide	$C_{16}H_{17}NO$	957517	239.30	Soluble	--	A	Synonym for Diphenamid
3,3'-Dimethyl-1,1'-diphenyl-(4,4'-bi-2-pyrazoline)5,5'dione	--	--	--	--	--	--	--
Dimethylester of tetrachlorotorephtholic acid	$C_{10}H_6Cl_4O_4$	1861321	331.99	Less than 5% in water	--	A	Synonym for DCPA
Dimethyl Phosphate of 3-hydroxy-N-methyl ciscrotonamide	$C_7H_{14}NO_5P$	6923224	223.16	Miscible with water	--	A	Synonym for Monocrotophos
Dimethyl Phosphate of a-methylbenzyl-3-hydroxy-cis-crotanonate	--	--	--	--	--	--	See Dimethylphosphate of 3-hydroxy-N-methyl ciscrotonamide
4,4 Dinitrodiphenyl	$C_{13}H_{10}N_4O_5$	587906	302.24	Soluble in $2x10^{-6}$ g water/100 ml solvent	--	A	Synonym for 4,4'-Dinitrocarbanilide
Dinitro(1-methyl heptyl) phenol	--	--	--	--	--	--	--
Dinitro(1-methyl heptyl)phenyl crotonate	--	--	--	--	--	--	--
9,10-Diphenylanthracene	--	--	--	--	--	--	See Anthracene
Diphenylbenzidine	--	--	--	--	--	--	See N,N'-Diphenylbenzidine
N,N'-Diphenylbenzidine	$C_{24}H_{20}N_2$	531919	336.42	Insoluble	--	A	--
1,1-Diphenylhydrzine Hydrochloride	$C_{12}H_{12}N_2$-.HCl	530507	184.23	Slightly soluble	--	A	--
Diphenylmethane	$C_{13}H_{12}$	101815	168.23	--	--	A	--
2,5-Diphenyloxazole	--	--	--	--	--	--	--
1,5-Diphenyl-3-thiocarbohydrazide	--	--	--	--	--	--	--

'able 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Diphenylthiocarbozone	$C_{13}H_{12}N_4S$	60106	256.32	Insoluble	--	A	Synonym for Dithizone
Diphenylthiooxazone	--	--	--	--	--	--	--
Dithiooxamide	$C_2H_4N_2S_2$	79403	120.20	Slightly soluble	--	A,D	Synonym for Rubeanic acid
Egg Albumen	--	--	--	Dried albumen swells in water, then dissolves gradually	--	A	Egg white, dried egg white
Endosulfan	$C_9H_6Cl_6O_3S$	115297	406.95	Practically insoluble	--	A	--
2-Ethoxynaphthalene	$C_{12}H_{12}O$	93185	172.22	Practically insoluble	--	A	--
1-Ethyl-a-naphthylamine	--	--	--	--	--	--	See 2-Ethoxynaphthalene
Ethyl Cyanide	C_3H_5N	107120	55.08	Solubility in water at 40° C: 11.9 g/100 g water	Poisonous when heated to decomposition or on contact with acids	A	Synonym for Propionitrile
Ethylene Dichloride	C_2H_4Cl	107062	98.96	Soluble in about 120 parts water	Possible irritant, toxic	A	--
Ethyl Salicylate	$C_9H_{10}O_3$	118616	166.17	Slightly soluble	--	A	--
Ferric Chloride	Cl_3Fe	7705080	162.22	Readily soluble	Anyhdrite form is irritant	A	--
Ferric Chloride solution	--	--	--	--	--	--	See Ferric Chloride
Flowers of Sulfur	S	7704349	32.06	Insoluble	Possible irritant	A	--
Fluoroanthene	$C_{16}H_{10}$	206440	202.00	Almost insoluble	Toxic; irritant, carcinogen, mutagen	C	--
Formaldehyde	CH_2O	50000	30.03	Very soluble	Intensily irritating to mucus membranes; carcinogen	A,C	--
Formaldehyde Solution	--	--	--	--	--	--	See Formaldehyde

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
α-Furildioxime	$C_{10}H_8N_2O_4$	522270	220.18	--	--	A	--
Furil Dioxime	--	--	--	--	--	--	See α-Furildioxime
Glycerol	$C_3H_8O_3$	56815	92.09	Miscible with water	--	A	--
Heptachlor	$C_{10}H_5Cl_7$	76448	373.35	--	Carcinogen; poisonous	A,C	--
Hexachloroethane	C_2Cl_6	67721	236.74	Insoluble	Irritant	A	--
Hexachlorophene	$C_{13}H_6Cl_6O_2$	70304	406.92	Practically insoluble	Potential neurotoxicity in humans	A	--
Hydrazine Sulfate	$H_6N_2O_4S$	10034932	130.12	Soluble in 33 parts water; freely soluble in hot water	Carcinogen	A	--
Hydrochloric Acid	HCl	7647010	--	Soluble	Corrosive, irritant, toxic	A	--
Hydrochloric Acid solution	--	--	--	--	--	--	See Hydrochloric Acid
Hydrolyzed Polyvinyl Alcohol	--	--	--	--	--	--	See Polyvinyl Alcohol
Hydroquinone	$C_6H_6O_2$	123319	110.11	Soluble in 14 parts water	Toxic in concentrations usually greater than 1 g	A,C	--
8-Hydroxy-7-iodo-5-quinoline Sulfonic Acid	$C_9H_6INO_4$	547911	351.13	1 g dissolves in 500 ml cold, 170 mL boiling water	--	A	--
8-Hydroxyquinoline	C_9H_7NO	148243	145.15	Almost insoluble	--	A	--
Indigo Carmine	$C_{16}H_8N_2Na_2O_8S_2$	860220	466.37	1 g dissolves in water at 25° C	--	A	--
Indolebutyric Acid	$C_{12}H_{13}NO_2$	133324	203.23	Practically insoluble	Causes tumors in rats	A	--
Iodoform	CHI_3	75478	393.78	Very slightly soluble	--	A	Volatile with steam
Iron Oxide	FeO	1345251	71.85	Very soluble	--	A	Synonym for Ferrous Oxide

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Iron Oxide	Fe_2O_3	1309371	159.70	--	Dust causes benign pneumoconiosis	A	Synonym for Ferric Oxide
Isobutyraldehyde	C_4H_8O	78842	72.10	110 g/L at 20° C	--	A	--
Isoparaffinic Petroleum Hydrocarbons	--	8001603	--	Immiscible	--	A	Oxidized petroleum hydrocarbons; Synonym for Isopar and Coparaffinate
Isopentyl Salicylate	--	--	--	--	--	--	--
Kelthane	$C_{14}H_9Cl_5O$	115322	370.47	Insoluble	--	A, C	Synonym for Dicofol
Kelthane 35 1,1 bis-(chlorophenyl)-2,2,2 trichloroethanol	--	--	--	--	--	--	Synonym for Kelthane; see Kelthane
Kelthane Solution	--	--	--	--	--	--	See Kelthane
Lead Arsenate	$PbHAsO_4$	10102484	--	Insoluble	Poisonous	A	--
Lead Nitrate	N_2O_6Pb	10099748	331.23	1 g dissolves in 2 mL cold, 0.75 mL boiling water	Poisonous	A	--
Limonene	$C_{10}H_{16}$	138863	136.23	Practically insoluble	Irritant	A	--
d-Limonene	--	--	--	--	--	--	See Limonene
Linoleic Acid	$C_{18}H_{32}O_2$	60333	280.44	--	--	A	--
Liquid Resin	--	--	--	--	--	--	--
Lithium 2,4-dichlorophenoxyacetate	--	--	--	--	--	--	--
Malathion	$C_{10}H_{19}O_6PS_2$	121755	330.36	Slightly soluble	Expected carcinogen	A,C	--
Malathion/aromatic hydrocarbon	--	--	--	--	--	--	See Malathion
Manganese Diox	MnO_2	1313139	86.94	Insoluble	-	A	Strong oxidizer; should not be heated or rubbed with organic matter or oxidizable substances

Table 12.–Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range–Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Mercuric Nitrate	HgN_2O_6	10045940	324.66	Soluble	Poison	A	--
Mercuric Nitrate solution	--	--	--	--	--	--	See Mercuric Nitrate
Mercuric Oxide	HgO	21908532	216.61	Practically insoluble	Poisonous	A	Red or yellow precipitate
Mercurous Chlorate	$Cl_2Hg_2O_6$	10294447	568.08	Sparingly soluble	--	A	--
Mercurous Chloride	Cl_2Hg_2	10112911	472.09	Practically insoluble	Excessive doses may cause mercuric poisoning	A	--
Mercurous Fluoride	F_2Hg_2	13967254	429.22	Hydrolyzed in water to form mercury, mercuric acid, and hydrofluoric acid	--	A	--
Mercurous Nitrate	$Hg_2N_2O_6$	10415755	525.19	Soluble in 13 parts water containing 1% HNO_3	Poisonous	A	--
Mercurous Silico-fluoride	--	--	--	--	--	--	See Mercurous Fluoride
Mercurous Perchlorate	--	--	--	--	--	--	See Mercurous Chlorate
Mercury Chloride	--	--	--	--	--	--	See Mercurous Chloride
Mesityl Oxide	$C_6H_{10}O$	141797	98.14	Soluble in about 30 parts water	--	A	--
Metanil Yellow	$C_{18}H_{14}N$-NaO_3S	587984	375.38	Soluble	--	A	--
Methocel	--	9004675	--	Soluble in cold water; insoluble in hot water	--	A	Synonym for Methylcellulose
Methocel-methyl Cellulose	--	--	--	--	--	--	See Methocel
2-Methoxy-4,6-bis (isopropylamino)-s-triazine	$C_{10}H_{19}N_5O$	1610180	225.29	Solubility in water at 20° C: 750 ppm	--	A	Synonym for Prometon

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
2-Methoxy-3-6-dichlorobenzoic acid dimethylamine salt	$C_9H_6Cl_2O_3$	1918009	221.04	Very slightly soluble	--	A	Synonym for Dicamba
Methylene Blue	$C_{16}H_{18}ClN_3S$	61734	319.85	1 g dissolves in about 25 mL water	--	A	--
1-Methyl naphthalamine	--	--	--	--	--	--	--
2-Methyl-4-nitroaniline	$C_7H_8N_2O_2$	99092	152.	--	--	C	--
1-Methyl-p-nitroaniline	--	--	--	--	--	--	See 2-Methyl-4-nitroaniline
Methyl Sulfate	CH_4O_4S	75934	112.10	Freely soluble	Poisonous; highly toxic; suspected carcinogen	A,C	--
Methyl Violet	--	--	--	--	--	--	--
Methyl Violet B	--	--	--	--	--	--	--
Monobromobenzene	$C_6H_7NO_3S$	108861	157.02	Practically insoluble	Irritant to skin	A	--
Monomethylparamino Phenol Sulfate	$C_{14}H_{20}N_2O_6S$	55550	344.38	Soluble in 20 parts cold, 6 parts boiling water	--	A	Synonym for p-Methylaminophenol Sulfate
Montmorillonite Clay	$R^+_{0.33}(Al_2,Mg)_2Si_4O_{10}(OH_2)n.H_2O$	1318930	--	--	Respiratory irritation	A	R^+ in natural material, includes one or more of the cations N^+, K^+, Mg^{2+}, and Ca^{2+}, and possibly others
Morin	$C_{15}H_{10}O_7$	480160	302.23	1 gram dissolves in 4 liters water at 20° C; 1060 mL boiling water	--	A	--
Nickel	Ni	7440020	58.69	Not affected by water	May cause dermatitis or nausea; anticipated carcinogen	A	--
Nickel/Platinum	--	--	--	--	--	--	See Nickel and Platinum

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Nicotine	$C_{10}H_{14}N_2$	54115	162.23	Miscible with water below 60° C	--	A	Volatile with steam; volume contracts when mixed with water
Nigericin	$C_{40}H_{68}O_{11}$	28380247	724.98	Practically insoluble	--	A	--
Nigrosine Black Dye	--	--	--	--	--	--	See Nigericin
m-Nitroacetophenone	--	--	--	--	--	--	--
p-Nitroaniline	$C_6H_6N_2O_2$	100016	138.12	1 g dissolves in 1,250 mL water, 45 mL in boiling water	Highly toxic; absorbed through skin	A	--
Nitrobenzene Sulfonylchloride	--	--	--	--	--	--	--
5-Nitro-2-furaldehyde Semicarbazone	$C_7H_6N_4O_3$	3270711	226.15	--	--	A	Synonym for Nifuraldezone
Nitron	$C_{20}H_{16}N_4$	487887	312.36	Practically insoluble	--	A	--
1-Nitronaphthalene	$C_{10}H_7NO_2$	86577	173.16	Insoluble	Moderate irritant	A,C	--
1-Nitroso-2-naphthol	$C_{10}H_7NO_2$	131919	173.16	Soluble in 1000 parts water	--	A	--
5-Nitro-1-naphthylamine	$C_{10}H_8N_2O_2$	3272911	188.	--	--	C	--
N-Oleyl 1,2-propylenediamine salt of 2,4-D, in inert oil	--	--	--	--	--	--	See Propylenediamine and 2,4-D
Nonvolatile Alkanolamine salts of 2,4-D	--	--	--	--	--	--	See 2,4-D
Paraformaldehyde	$(CH_2O)_n$	30525894	--	Slowly soluble in cold water, more readily soluble in hot water	--	A	--
Parlodian strips (Nonexplosive cellulose nitrate)	--	--	--	--	--	A	Synonym for Pyroxylin

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
2,4 Pentanedion	$C_5H_8O_2$	123546	100.11	1 part dissolves in about 8 parts water	Mild irrigant	A	Synonym for Acetylacetone
Petroleum oil	--	--	--	Insoluble	--	A	--
Phenol	C_6H_6O	108952	94.11	1 g dissolves in 15 mL water	Poisonous; death, average fatal dose is 15 g; death has occured from 1 g dose; highly toxic by skin contact	A,C	Volatilizes with steam
Phenol Red	$C_{19}H_{14}O_5S$	143748	354.37	1 g dissolves in about 1,300 mL water	--	A	Synonym for Phenolsulfonphthalein
Phenyl Hydrazine	$C_6H_8N_2$	100630	108.14	Sparingly soluble	Toxic	A	--
Phenylmercuric Acetate	$C_8H_8HgO_2$	62384	336.75	Soluble in about 600 parts water	--	A	--
Phenyl Mercuric Acid	$C_6H_6HgO_2$	62384	336.75	Soluble in about 600 parts water	--	A	--
p-Phenylsulfanilic Acid, Barium salt	$(C_{12}H_{10}N-O_3S)_2Ba$	101575	249.28	Slightly soluble	Poisonous	A	--
Phosphate detergent	--	--	--	--	--	--	--
Phosphoric Acid	H_3O_4P	7664382	98.00	Soluble	Irritant	A	--
Phosphorodithioic Acid	$C_{10}H_{12}N_3O_3-PS_2$	86500	317.34	Solubility in water at 25° C: 33 mg/L	Cholinesterase inhibitor	A	Synonym for Azinphos-methyl
Phosphorus	P	7723140	30.97	--	Irritant; toxic	A	Exists in three forms, white, black and red
Phosphorus Pentachloride	Cl_5P	10026138	208.27	Hydrolyzed in water to form phosphoric acid and hydrogen chloride	Irritant; corrosive	A	--
m-Phthalidicarbo-	--	--	--	--	--	--	--

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Picric Acid in H_2O	--	--	--	--	--	--	See Picric Acid
O,O'Pictho-p-nitrite phenol thiosphate	--	--	--	--	--	--	--
Platinum	Pt		195.08	Not affected by water	May cause dermatitis and respiratory problems	--	--
Polyvinyl Alcohol	--	9002895	--	Essentially soluble in hot and cold water but those coded 20-105 require alcohol-water mixtures	--	A	--
Polyvinyl Resin	--	--	--	--	--	--	--
Potassium Alum	--	--	--	--	--	--	Synonym for Aluminum Potassium Sulfate; see Aluminum Potassium Sulfate
Potassium Chromate (VI)	CrK_2O_4	7789006	194.20	Soluble in 1.6 parts cold water, 1.2 parts boiling water	--	A	--
Potassium Cyanide	CKN	151508	65.11	Soluble in 2 parts cold water; 1 part boiling water	Vollent poison	A	--
Potassium Dichromate	$Cr_2K_2O_7$	7778509	294.21	Soluble	Internally corrosive; poison	A	--
Potassium Hydroxide	HKO	1310583	56.10	Soluble in 0.9 part water, 0.6 part boiling water; much heat is generated when dissolved in water	Extremely corrosive; irritant; fatal	A	--
Potassium Iodide	IK	7681110	166.02	1 g dissolves in 0.7 mL water, 0.5 mL boiling water	--	A	--
Potassium Manganate (VI)	K_2MnO_4	10294641	197.12	Soluble	--	A	With HCl it gives free chlorine

ble 12.–Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range–Continued

mical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
assium Nickel yanide	--	--	--	--	--	--	See Potassium Cyanide and Nickel
assium Sulfide	K_2S	1312738	110.26	Freely soluble	--	A	May explode on percussion or rapid heating
pazine	$C_9H_{16}ClN_3$	139402	230.09	8.6 ppm in water at 20° C	--	A	--
pylenediamine	$C_3H_{10}N_2$	78900	74.13	Very soluble	--	A	--
legone	$C_{10}H_{14}O$	89827	152.23	Practically insoluble	--	A	--
rophyllite	Al_2O_3Si	12141467	162.05	--	--	A	Synonym for Aluminum Silicate
inaldine	$C_{10}H_9N$	91634	143.18	Practically insoluble	Irritant	A	--
foxanide	$C_{12}H_{11}Cl_2$-I_2NO_2	22662391	626.01	Practically insoluble	--	A	--
d Phosphorus	P	7723140	30.97	--	Irritant; toxic	A	Also exists in white and black forms
odium	Rh	7440166	102.91	--	--	A	--
alicylanilide	$C_{13}H_{11}NO_2$	87172	213.24	Slightly soluble	--	A	--
alicylic Acid	$C_7H_6O_3$	69727	138.12	1 g dissolves in 460 mL water	Irritant; mental disturbances	A,C	Volatile with steam
levin: Carbaryl(1-naphthyl-N-methyl-carbonate)	--	--	--	--	--	A	Synonym for Carbaryl(1-naphthyl-N-methyl-carbonate); See Carbaryl (1-naphthyl-N-methyl-carbonate)
Silver	Ag	7440224	107.87	--	Most silver salts are irritating to skin	A	--
Silver Cyanide	CAgN	506649	133.90	Insoluble	Poisonous	A	--
						A	A Polyoxyethylene Alcohol

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Sodium Cyanide	CNNa	143339	49.02	Freely soluble	Violent poison	A	--
Sodium Hydroxide	HNaO	1310732	40.01	1 g dissolves in 0.9 mL water; 0.3 mL boiling water	Corrosive to all tissues	A	--
Sodium Monosulfide	Na_2S	1313822	78.05	Soluble	--	A	Synonym for Sodium Sulfide
Sodium Silicate	Na_2SiO_3	1344098	--	Very slightly soluble	Irritant; caustic	A	Water glass; molecular formula varies
Solid Green Dye	--	--	--	--	--	--	--
Solution of Copper Sulfate, Sodium Arsenite and Nicotine	--	--	--	--	--	--	See Copper Sulfate, Sodium Arsenite, and Nicotine
Starch	$(C_6H_{10}O_5)_n$	--		Practically insoluble in cold water	--	A	--
Streptomycin Sulfate	$C_{42}H_{84}N_{14}O_{36}S_2$	3810740	--	Less than 20 mg/mL at about 28° C	--	A	--
Sulfuric Acid	H_2O_4S	7664939	98.08	Miscible with water	Corrosive to all body parts; toxic	A	Has a great affinity for water, abstracting it from the air and from many organic substances
Sulfuric Acid solution	--	--	--	--	--	--	See Sulfuric Acid
Synthetic Resin (Foreount)	--	--	--	--	--	--	--
Tannic Acid	--	--	--	1 g dissolves in 0.35 mL water	--	A	--
Terphenyl	--	--	--	--	--	--	--
p-Terphenyl	$C_{18}H_{14}$	92944	230.3	--	--	C	--
Tetrachlorethylene	C_2Cl_4	127184	165.85	Soluble in 10,000 volume water	Narcotic in high concentrations. Defatting action on skin may lead to dermatitis	A	--
Tetrachlorethylene capsules	--	--	--	--	--	--	See Tetrachlorethylene

Table 12.–Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range–Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Thallium Chloride	ClTl	7791120	239.85	Soluble in 260 parts water	Poisonous	A	--
Thick resin	--	--	--	--	--	--	--
Thiram	$C_6H_{12}N_2S_4$	137268	240.44	Insoluble	Irritant	A	--
Thymol Blue	$C_{27}H_{30}O_5S$	76619	466.58	Insoluble	--	A	--
Toxaphene	$C_{10}H_{10}Cl_8$	8001352	--	Practically insoluble	Toxic; carcinogen	A	--
Trace Ferric Chloride contaminated diatomaceous earth	--	--	--	--	--	--	See Ferric Chloride
Trichloroacetic Acid	$C_2HCl_3O_2$	76039	163.40	Soluble in 0.1 part water	Very corrosive; toxic; carcinogenic	A,C	--
Trichlorfon	$C_4H_8Cl_3O_4P$	52686	257.45	Solubility at 25°C: 15.4 g/100 mL water	Cholinesterase inhibitor	A	--
Trichlorphon	--	--	--	--	--	--	See Trichlorfon
Trifluralin	$C_{13}H_{16}F_3N_3O_4$	1582098	335.29	Slightly soluble, 0.0024 g/mL	--	A	--
Trifluralin(α,α,α-trifloro-2,6-dinitro-N,N-dipropyl-p-toluidine)	--	--	--	--	--	--	Synonym for Trifluralin; see Trifluralin
(α,α,α-Trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine)	--	--	--	--	--	--	Synonym for Trifluralin; see Trifluralin
Triphenyl Bismuth	$C_{18}H_{15}Bi$	603338	440.	--	--	C	--
Xylene	C_8H_{10}	1330207	106.16	Practically insoluble	May be narcotic in high concentrations	A	--
Zinc Acetate	$C_4H_6O_4Zn$	557346	183.46	1 g dissolves in 2.3 mL water; 1.6	--	A	--

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Concluded

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Zinc Chloride	Cl_2Zn	7646857	136.29	Soluble	Moderate irritant	A	--
Zinc Chloride solution	--	--	--	--	--	--	See Zinc Chloride
Zinc Cyanide	C_2N_2Zn	557211	117.42	Insoluble	Poisonous	A	--
Zinc Sulfate	$ZnSO_4$	7733020	161.44	Soluble	Irritant	A	--
Zinc Sulfide	SZn	1314983	97.45	Insoluble	--	A	--

APPENDIX C

Final Hazardous Waste Storage Facility Evaporation Tank Closure
dated 4 April 1995

U.S. ARMY WHITE SANDS MISSILE RANGE
HAZARDOUS WASTE STORAGE FACILITY
EVAPORATION TANK CLOSURE
FINAL

Prepared for

COMMANDER

U.S. ARMY WHITE SANDS MISSLE RANGE

Prepared by

Advanced Sciences, Inc.

555 Telshor, Suite 310

Las Cruces, New Mexico 88011

APRIL 4, 1995

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Executive Summary

This report documents the results of the soil sampling field investigation conducted at the former hazardous waste evaporation tank located at the White Sands Missile Range, Hazardous Waste Storage Facility (EPA ID# 2750211235). This effort was undertaken in response to the New Mexico Environment Department denial for Resource Conservation and Recovery Act clean closure of the former evaporation tank facility. The work, the results of which are presented herein, was carried out in accordance with the work plan portion of the revised Clean Closure Plan dated 3 December, 1993 and approved by the New Mexico Environment Department in a letter dated 8 September, 1994. The investigation was designed to provide reliable analytical data from the site in order to demonstrate clearly that the potential contaminant of concern, trichloroethylene, is not present in soils at concentrations greater than or equal to the regulatory level (Sub Part S). Previous analytical data from the site yielded conflicting results preventing regulatory approval for clean closure of the site. The results of this investigation indicate that trichloroethylene is not present in any of the split 108 soil samples recovered from depths ranging from one to 30 feet below ground surface at the former hazardous waste evaporation tank location.

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U.S. ARMY WHITE SANDS MISSILE RANGE
HAZARDOUS WASTE STORAGE FACILITY
EVAPORATION TANK CLOSURE
FINAL

Prepared for

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List of Acronyms

ASI	Advanced Sciences Inc.
bgs	below ground surface
EPA	U.S. Environmental Protection Agency
ES-E	WSMR Environmental Services Division
eV	electron volt
FID	Flame ionization detector
HASP	Health and Safety Plan
HWSF	Hazardous Waste Storage Facility
ID	Identification
IT	International Technology Corporation
mcl	maximum contaminant level
mg/Kg	milligram per Kilogram
mg/L	milligram per liter
MTD	Material Test Directorate
NMED	New Mexico Environment Department

PID	Photo ionization detector
ppm	parts per million
TCE	Trichloroethylene
TCLP	Toxic Characteristic Leaching Procedure
TDS	Total dissolved solids
VOC's	Volatile organic compounds
WSMR	White Sands Missile Range

1.0 SITE DESCRIPTION

White Sands Missile Range (WSMR) is a large military installation under the responsibility of the Department of the Army. It is a government owned and operated facility which ranges from 25 to 40 miles in width and 125 miles in length, occupying approximately 3,500 square miles in south central New Mexico. The installation cover parts of Otero, Lincoln, Doña Ana, Sierra, Socorro, and Torrance counties. The Headquarters or Main Post area of WSMR, where most of the residential and administrative facilities are located, is located about 27 miles east northeast of the City of Las Cruces, New Mexico, and 45 miles north of El Paso, Texas.

The subject of this investigation is the Hazardous Waste Storage Facility (HWSF) Evaporation Tank, (EPA ID# 2750211235) located approximately eight miles east of WSMR headquarters on Nike Avenue (Range Road 2). The site is located at 32° 23' north latitude and 106° 19' west longitude.

1.1 PREVIOUS WORK

The State of New Mexico Environment Department (NMED) Hazardous and Radioactive Waste Materials Bureau denied clean closure for the Evaporation Tank located adjacent to Building 22895 on 31 August, 1993. This State action resulted in a requirement for WSMR's Directorate of Environment and Safety, Environmental Services Division (DES-E) to submit a revised Clean Closure Plan. The State noted however, WSMR would have to be ready for post-closure care if clean closure could not be accomplished. In the event that clean closure can not be demonstrated, WSMR will proceed with the capping of the Evaporation Tank area and begin post closure care.

NMED denied WSMR clean closure in the 31 August, 1993 action because of elevated levels of trichloroethylene (TCE) in the soils beneath the Evaporation Tank concrete floor. This TCE contamination was identified during an October 1992 sampling and analysis event, using the toxicity characteristic leaching procedure (TCLP) (EPA Methods 1311 and 8240). These TCE-TCLP concentrations exceeded the regulatory limit (0.5 mg/L) in samples from three core holes. Those results are summarized in the following table 1-1.

TABLE 1-1
CONSTITUENT EXCEEDANCES IN SUBSURFACE SOILS, OCTOBER 1992

	SAMPLE LOCATION AND DEPTH			
ANALYTE	# 1 0"- 6"	# 2 0"- 6"	# 3 0"- 6"	Limit
TCLP-TCE	1.60 mg/L	<Reg. Limit	0.53 mg/L	0.5 mg/L Reg.
	30"- 36"	30"- 36"	30"- 36"	
TCLP-TCE	1.30 mg/L	1.00 mg/L	<Reg. Limit	0.5 mg/L Reg.

source: Advanced Sciences, Inc. 1993

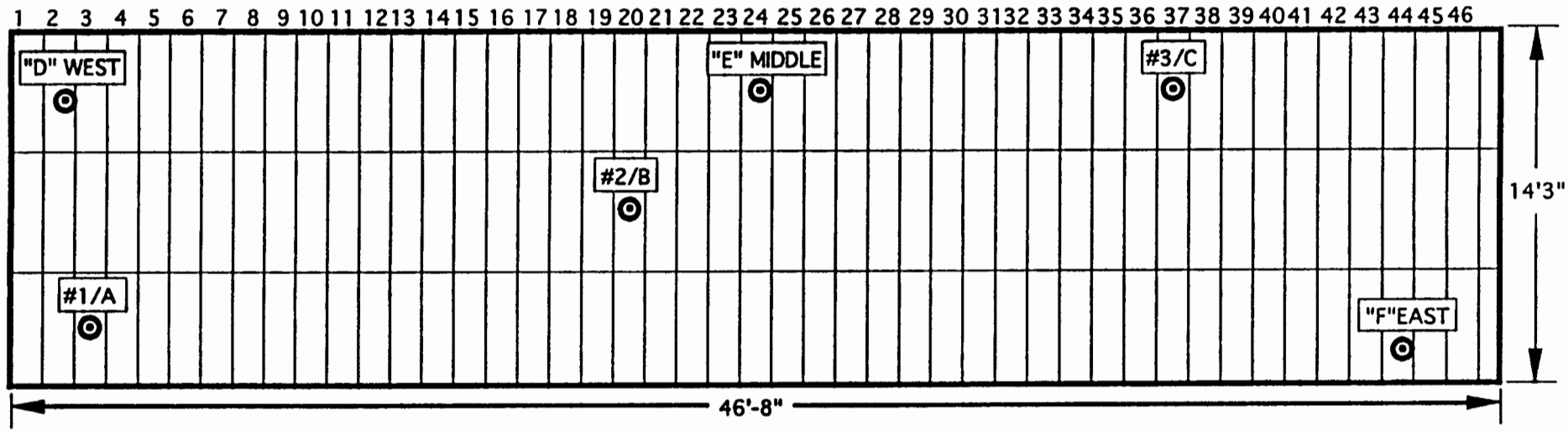
During January and February 1993, the concrete walls of the Evaporation Tank were removed and disposed of in the WSMR Construction Landfill. Also during January and February 1993, additional samples were taken of the Evaporation Tank concrete floor and soil samples were collected beneath the Evaporation Tank floor. These samples were analyzed for total constituent concentration (EPA Method 8240), and the resultant data did not indicate the presence of TCE. The results of all prior TCE analysis are summarized in table 1-2. Additional sampling has been performed to determine if TCE-TCLP concentrations in excess of the regulatory limit occur in soil samples collected from bore holes advanced beneath the former Evaporation Tank floor area. The purpose of the TCLP-TCE analysis presented in this report was to clarify previous analytical results which were considered to be inconclusive. TCLP-TCE analysis of soil samples collected at the site during the initial an initial investigation indicated TCE concentrations which were not confirmed by subsequent total concentration analysis or known waste stream history. Figure 1-1 depicts the locations of previously collected samples.

Table 1-2 Summary of Previous Soil TCE Sampling

MEDIA	DATE	SAMPLE ID	RESULT	DETECTION LIMIT
TCE TOTAL CONCENTRATION				
Soil	6-22-92	ET 1	<50.0 ug/Kg	50.0 ug/Kg
Soil	6-22-92	ET 3	<50.0 ug/Kg	50.0 ug/Kg
TCE TOXIC CHARACTERISTIC LEACHING PROCEDURE				
Soil	10-09-92	Site #1 0"- 6"	1.6 ug/L	0.5 mg/L
Soil	10-09-92	Site #1 30"-36"	1.3 ug/L	0.5 mg/L
Soil	10-09-92	Site #2 0"- 6"	<0.5 ug/L	0.5 mg/L
Soil	10-09-92	Site #2 30"-36"	1.0 ug/L	0.5 mg/L
Soil	10-09-92	Site #3 0"- 6"	0.53 ug/L	0.5 mg/L
Soil	10-09-92	Site #3 30"-36"	<0.5 ug/L	0.5 mg/L
TCE TOTAL CONCENTRATION				
Soil	2-12-93	E Middle	<50.0 ug/Kg	50.0 ug/Kg
Soil	2-12-93	F East	<50.0 ug/Kg	50.0 ug/Kg
Soil	2-09-93	2B 72" - 80"	<50.0 ug/Kg	50.0 ug/Kg
Soil	2-09-93	1C 43" - 51"	<50.0 ug/Kg	50.0 ug/Kg
Soil	2-09-93	2C 70" - 78"	<50.0 ug/Kg	50.0 ug/Kg
Soil	2-09-93	1A 42" - 50"	<50.0 ug/Kg	50.0 ug/Kg
Soil	2-09-93	2A 77" - 81"	<50.0 ug/Kg	50.0 ug/Kg
Soil	2-09-93	1B 35" - 42"	<50.0 ug/Kg	50.0 ug/Kg

source: ASI 1993

EVAPORATIVE TANK
SAMPLING LOCATIONS



Past Sampling Locations

NORTH

Not to scale

Fi[illegible]e 1-1 | Past Evap[illegible]tion Tank Sampling Locations

1.2 REGULATORY CONCERNS

The purpose of the revised Plan was to determine the presence of any TCE-TCLP in the soils. This additional sampling was required by the regulators since elevated levels (above regulatory limit) of TCE-TCLP had been shown to exist in soils beneath the Evaporation Tank floor in the past (1992). The Plan consisted of up to two phases. The Phase I investigation activities were designed to verify the presence of any TCE-TCLP contaminated soils. If TCE-TCLP concentrations were not found in concentrations which exceed the TCLP regulatory limit, the Evaporation Tank area would be judged to be "clean closed". If the Evaporation tank area is "clean closed", appropriate justification of the recent, revised sampling methodology as compared to the October 1992 sampling methodology would be presented in a Final Report. This document is the Final Report and defines the methodology and results of the revised investigation.

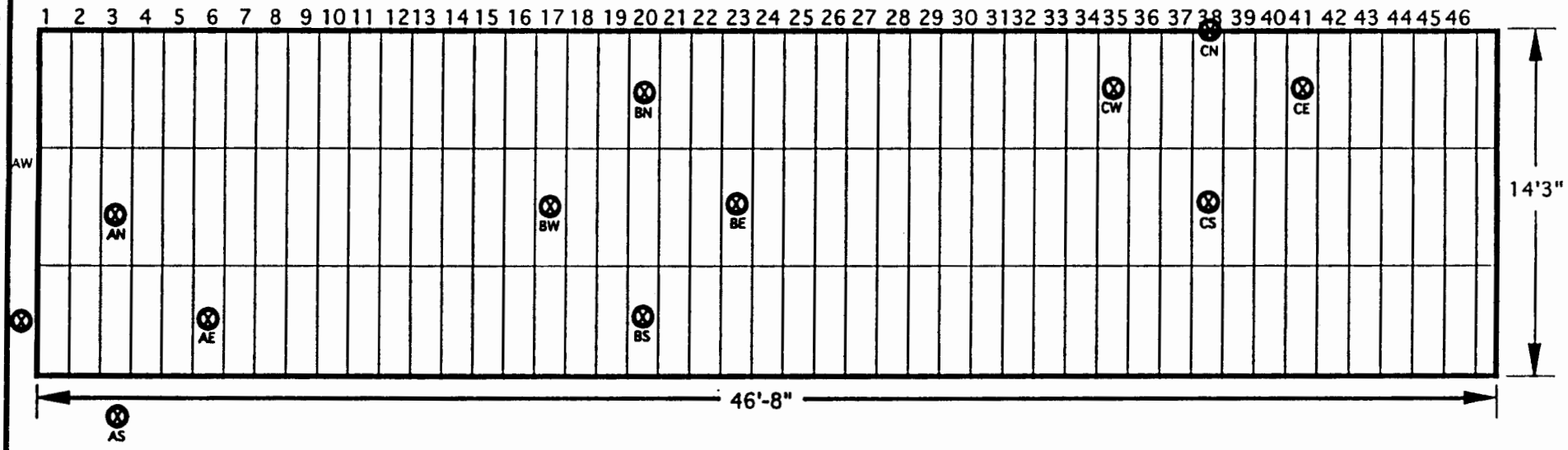
Phase II in the revised plan detailed the resulting sampling and remedial procedures that would be required if TCE-TCLP were detected at concentrations in soil above regulatory concern (0.5 mg/L) and to delineate the horizontal and vertical extent of contamination. The results of the sampling investigation carried out under the revised plan indicated that TCE-TCLP was not present in soil in concentrations equal to, or greater than the regulatory limit. The procedures and detailed results of the investigation conducted under the revised plan are presented in the following sections.

2.0 SCOPE OF WORK AND METHODOLOGY

In accordance with the revised plan, sampling was accomplished by means of an eight inch diameter bore holes advanced with a Mobile Drill Model B-61 drill rig using auger flights five feet in length. Undisturbed soil samples were retrieved using 24 inch split spoon sampler containing four six inch by 2.5 inch diameter brass liners. The sampler was advanced approximately one inch ahead of the augers using the wire line method. Prior to the initial boring and in between all subsequent borings, the drill rig, augers and all down hole equipment was decontaminated using potable water and Alconox and potable water and a steam cleaner. Decontamination of equipment occurred on a decontamination pad constructed for this purpose, located down topographic gradient from the location of the former evaporation tank. The

location of borings conducted in the field is presented in figure 2-1. When a boring was completed the augers were removed and the boring was grouted to the surface with Portland type II cement mixed with potable water. Previous grouted bore holes were topped off with additional grout as several feet of settlement of the grout occurred with curing. All holes were completely grouted to the surface at the conclusion of field work.

EVAPORATIVE TANK
SAMPLING LOCATIONS



Current Sampling Locations

NORTH

Not to scale

Figure 2-1	Current Evaporation Tank Soil Sampling Locations

2.1 SAMPLING PROCEDURE

A total of 216 undisturbed soil samples were recovered from the site. Split samples were collected from 108 discrete locations in the soil subsurface below the footprint of the former evaporation tank. The depths from which samples were to be recovered as prescribed in the revised plan were every one foot bgs for the first five feet and then every five feet thereafter to a maximum depth of 25 feet bgs. The boring at location A-W was advanced to a total depth of 30 feet bgs. The original plan called for the removal of the soil from the split spoon and the splitting of the soil from the appropriate depth into two soil samples of the required volume. Prior to the beginning of field work it was determined in discussions between ASI and WSMR that the use of split spoon liners would result in the least disturbance to the sample. This change in procedure was implemented to ensure the most representative samples with minimum of opportunity for loss of the potential volatile fraction to the atmosphere. The use of liners however did preclude the splitting of samples in the usual sense since splitting would have exposed soil to the atmosphere for some period of time. Given this limitation the split samples were obtained in the following manner. At a given sample depth, the section of liner containing sample for the six inch interval prior to the sample depth (e.g. 3.0 feet bgs) was retained for the secondary laboratory and the liner containing the six inch interval below the sample depth was retained for the primary laboratory.

During sampling, as the split spoons were opened, the sample liners were separated and visually inspected to assure sufficient soil was present in the liner. At that time the liner was labeled with bore hole number, sample depth interval, date, time, sampler name, and a primary or secondary laboratory designation as appropriate. After the sample was labeled the ends where the sample material was exposed were covered with Teflon film and fitted with tight fitting plastic end caps. The samples then, tightly sealed in the brass liners, were then wrapped one each in a sealed plastic bag and arranged in the appropriate cooler with ice packs.

Occasionally there was insufficient sample within the liner for a given depth interval. On these occasions it was necessary to remove a portion of the sample material from the adjacent sample liner. When needed this was done by using a decontaminated knife to remove the appropriate amount of soil and the depth interval/name of the samples were adjusted to accurately reflect the exact depth range from which a sample originated. A schedule cross referencing the bore hole, sample number, primary laboratory, and

the secondary laboratory is presented in table 2-1.

2.2 ANALYTICAL PROCEDURE

The primary laboratory was Quantera Environmental Services, Inc., formerly known as International Technology Corporation (IT), located in Austin, Texas. The secondary laboratory was the Environmental Laboratory of WSMR, Material Test Directorate, MTD. The primary laboratory conducted TCE-TCLP volatile from leachate, method EPA8240. Documentation concerning primary laboratory chain of custody procedures and laboratory quality assurance is provided with analytical results in appendix A.

TABLE 2-1
HWSF EVAPORATION TANK SAMPLE SCHEDULE

BORING A - N	BORING A - S	BORING A - W	BORING A - E	BORING B - N	BORING B - S
0.5 - 1.0	0.5 - 1.0	0 - 0.5	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0
1.0 - 1.5	1.0 - 1.5	0.5 - 1.0	1.0 - 1.5	1.0 - 1.5	1.0 - 1.5
1.5 - 2.0	1.5 - 1.75	1.0 - 1.5	1.5 - 1.75	1.5 - 1.75	1.5 - 17.5
2.5 - 2.75	1.75 - 2.0	1.5 - 2.0	1.75 - 2.0	1.75 - 2.0	1.75 - 2.0
2.75 - 3.0	2.75 - 3.0	2.0 - 2.5	2.5 - 3.0	*	2.5 - 3.0
3.0 - 3.5	3.0 - 3.5	2.5 - 3.0	3.0 - 3.5	*	3.0 - 3.5
3.5 - 3.75	3.5 - 3.75	3.0 - 3.5	3.5 - 3.75	3.5 - 4.0	3.5 - 3.75
3.75 - 4.0	3.75 - 4.0	3.5 - 4.0	3.75 - 4.0	4.0 - 4.5	3.75 - 4.0
5.0 - 5.25	5.0 - 5.5	4.0 - 4.5	5.0 - 5.5	4.5 - 5.0	5.0 - 5.5
5.25 - 5.5	5.5 - 6.0	4.5 - 5.0	5.5 - 5.6	5.0 - 5.5	5.5 - 6.0
10.0 - 11.5	9.5 - 10.0	9.0 - 9.5	9.5 - 10.0	9.5 - 10.0	9.5 - 10.0
10.5 - 11.0	10.0 - 10.5	9.5 - 10.0	10.0 - 10.5	10.0 - 10.5	10.0 - 10.5
14.5 - 15.0	14.5 - 15.0	14.0 - 14.5	14.5 - 15.0	14.5 - 15.0	14.5 - 15.0
15.0 - 15.5	15.0 - 15.5	14.5 - 15.0	15.0 - 15.5	15.0 - 15.5	15.0 - 15.5
9.5 - 20.0	19.5 - 20.0	20.0 - 20.5	19.5 - 20.0	19.5 - 20.0	19.5 - 20.0
20.0 - 20.5	20.0 - 20.5	20.5 - 21.0	20.0 - 20.5	20.0 - 20.5	20.0 - 20.5
24.5 - 25.0	24.5 - 25.0	24.5 - 25.0	25.0 - 25.5	24.5 - 25.0	24.5 - 25.0
25.0 - 25.5	25.0 - 25.5	25.0 - 25.5	25.5 - 26.0	25.0 - 25.5	25.0 - 25.5
		29.0 - 29.5			
		29.5 - 30.0			

Primary Laboratory
Secondary Laboratory

* Insufficient Sample Recovery

note: 1. Unique sample identification is composed of the boring number and the depth interval.
2. Boring A-W was advanced to 30 feet bgs, all subsequent borings terminated at 25 feet bgs.

TABLE 2-1 (CONT.)
HWSF EVAPORATION TANK SAMPLE SCHEDULE

BORING B - W	BORING B - E	BORING C - N	BORING C - S	BORING C - W	BORING C - E
0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0
1.0 - 1.5	1.0 - 1.5	1.0 - 1.5	1.0 - 1.5	1.0 - 1.5	1.0 - 1.5
1.5 - 1.75	1.5 - 1.75	1.5 - 2.0	1.5 - 2.0	1.5 - 1.75	1.5 - 17.5
1.75 - 2.0	1.75 - 2.0	2.0 - 2.5	2.0 - 2.5	2.0 - 2.5	1.75 - 2.0
2.50 - 3.0	2.50 - 3.0	2.5 - 3.0	2.5 - 3.0	2.5 - 3.0	2.5 - 3.0
3.0 - 3.5	3.0 -3.5	3.0 - 3.5	3.0 - 3.5	3.0 - 3.5	3.0 - 3.5
3.5 - 3.75	3.5 - 4.0	3.5 - 3.75	3.5 - 4.0	3.5 - 3.75	3.5 - 3.75
3.75 - 4.0	4.0 - 4.5	3.75 - 4.0	4.0 - 4.5	3.75 - 4.0	3.75 - 4.0
5.0 - 5.5	4.5 - 5.0	4.5 - 5.0	4.5 - 5.0	4.5 - 5.0	5.0 - 5.5
5.5 - 6.0	5.0 - 5.5	5.0 - 5.5	5.0 - 5.5	5.0 - 5.5	5.5 - 6.0
9.5 - 10.0	10.0 - 10.5	9.5 - 10.0	9.5 - 10.0	9.5 - 10.0	9.5 - 10.0
10.0 - 10.5	10.5 - 11.0	10.0 - 10.5	10.0 - 10.5	10.0 - 10.5	10.0 - 10.5
15.0 - 15.5	14.5 - 15.0	15.0 - 15.5	14.5 - 15.0	14.5 - 15.0	14.5 - 15.0
15.5 - 16.0	15.0 - 16.0	15.5 - 16.0	15.0 - 15.5	15.0 - 15.5	15.0 - 15.5
19.5 - 20.0	19.5 - 20.0	19.5 - 20.0	19.5 - 20.0	19.5 - 20.0	19.5 - 20.0
20.0 - 20.5	20.0 - 20.5	20.0 - 20.5	20.0 - 20.5	20.0 - 20.5	20.0 - 20.5
24.5 - 25.0	24.5 - 25.0	25.0 - 25.5	24.5 - 25.0	24.5 - 25.0	24.5 - 25.0
25.0 - 25.5	25.0 - 25.5	25.5 - 26.0	25.0 - 25.5	25.0 - 25.5	25.0 - 25.5

Primary Laboratory
Secondary Laboratory

note: Unique sample identification is composed of the boring number and the depth interval.

3.0 SUBSURFACE CONDITIONS

The maximum depth attained in this investigation was 30 feet bgs in the initial boring designated A-W. This and all of the subsequent borings, which were advanced to a maximum depth of 25 feet bgs, encountered very similar lithology. No groundwater was encountered, however the soil material did seem to be more damp than expected for an arid environment. This is most likely due to the fact that the immediate area of the former tank forms a slight surface depression where the runoff from the roof of building 22895 collects and infiltrates.

Three of the twelve borings advanced were sampled by split spoon and logged continuously to total depth for lithologic purposes. The results reveal that the lithology to 30 feet bgs is predominantly sand. The typical profile consists of approximately 70% fine sand with the remainder evenly divided between silt and clay to a depth of approximately 18 feet bgs. The structure varied from weak, massive and very friable to firm. Structure in the upper ten feet tended to be the most firm with common, distinct white mottles. From 18 to 20 feet bgs there tended to be more clay material than silt imparting a weak to moderate, subangular blocky soil structure. At the depth of 20 to 23 feet bgs the texture was approximately 70% to 80% fine sand with very little soil structure. At a depth of approximately 23 to 24 feet bgs there was a series of hard, red-brown colored, sandy clay layers. Interbedded between the clay layers were thin alternating layers of medium to coarse sands with very little fine grained material. There were five clay layers in total averaging 0.75 inches in thickness. In general, the sands below the clay at the 23 to 24 feet bgs interval were fine with little fine grained material (approximately 10% or less) becoming more coarse grained with depth. Many lithologic samples were retrieved from the 12 borings. These samples were then agitated in water and allowed to settle out allowing for a uniform approximation of the texture composition to be recorded.

4.0 FIELD SCREENING RESULTS

Field head space analysis were conducted during the investigation using a HNu photo ionization device (PID) with a 10.2 electron volt (eV) lamp. Routine ambient air and breathing zone monitoring conducted with this device in conformance with the site specific Health and Safety Plan (HASP) did not reveal

significant concentrations of volatile organic compounds (VOC's) in the breathing zone. Head space analysis was conducted on many samples retrieved from the 12 borings. The results of these analysis are presented in table 2-2.

TABLE 2-2
HWSF EVAPORATION TANK FIELD HEAD SPACE ANALYSIS

BORING A - N	BORING A - S	BORING A - W	BORING A - E	BORING B - N	BORING B - S
2.0 - 2.1	19.5 - 20.0	*	2.0 - 2.1	0.0 - 0.5	0.0 - 0.5
0.0 PPM	0.0 PPM	*	0.0 PPM	43.0 PPM	190.0 PPM
4.0 - 4.1	20.5 - 21.0	*	4.0 - 4.1	2.0 - 2.1	3.5 - 4.0
0.0 PPM	0.0 PPM	*	0.0 PPM	31.0 PPM	35.0 PPM
6.0 - 6.5	25.5 - 26.0	*	6.0 - 6.1	4.0 - 4.1	7.5 - 8.0
0.0 PPM	0.0 PPM	*	0.0 PPM	41.0 PPM	50.0 PPM
15.5 - 16.0	*	*	10.5 - 11.0	5.5 - 6.0	10.5 - 11.0
0.0 PPM	*	*	6.0 PPM	32.0 PPM	30.0 PPM
19.0 - 19.5	*	*	14.0 - 14.5	10.5 - 11.0	12.5 - 13.0
0.0 PPM	*	*	5.0 PPM	35.0 PPM	1.0 PPM
20.5 - 21.0	*	*	15.5 - 16.0	15.5 - 16.0	15.5 - 16.0
0.0 PPM	*	*	6.0 PPM	33.0 PPM	70.0 PPM
24.0 - 24.5	*	*	20.5 - 21.0	20.5 - 21.0	16.0 - 17.5
0.0 PPM	*	*	6.0 PPM	29.0 PPM	100.0 PPM
25.5 - 26.0	*	*	24.5 - 25.0	25.5 - 26.0	18.2 -
0.0 PPM	*	*	6.5 PPM	63.0 PPM	60.0 PPM
					18.4 - 19.0
					1.0 PPM
					21.4 - 22.0
					20.0 PPM
					22.0 - 23.0
					1.5 PPM
					24.0 - 24.5
					1.0 PPM
					25.5 - 26.0
					0.0 PPM

FEET BELOW GROUND SURFACE
PARTS PER MILLION

* No head space sample recovered

TABLE 2-2 (CONT.)
HWSF EVAPORATION TANK FIELD HEAD SPACE ANALYSIS

BORING B - W	BORING B - E	BORING C - N	BORING C - S	BORING C - W	BORING C - E
2.0 - 2.1	0.0 - 0.5	2.0 -2.1	0.0 - 0.5	2.0 - 2.1	2.0 - 2.1
11.0 PPM	200 PPM	120 PPM	195 PPM	108 PPM	36 PPM
2.0 - 2.5	2.0 - 2.1	4.0 - 4.1	4.0 - 4.1	4.0 - 4.1	8.0 - 9.0
10.0 PPM	200 PPM	195 PPM	200 PPM	55 PPM	30 PPM
4.0 - 4.1	4.0 - 4.1	5.5 - 6.0	5.5 - 6.0	5.5 - 6.0	10.5 -11.0
10.0 PPM	180 PPM	200 PPM	245 PPM	51 PPM	60 PPM
6.0 - 6.1	5.5 - 6.0	10.5 - 11.0	10.5 - 11.0	10.5 - 11.0	15.5 - 16.0
10.0 PPM	190 PPM	200 PPM	170 PPM	58 PPM	40 PPM
10.5 - 11.0	9.5 - 10.0	16.0 - 16.1	15.5 - 16.0	15.5 - 16.0	18.5 - 19.0
12.0 PPM	85 PPM	180 PPM	148 PPM	105 PPM	41 PPM
20.5 - 21.0	15.5 - 16.0	20.5 - 21.0	20.5 - 21.0	20.5 - 21.0	20.0 - 20.5
10.0 PPM	200 PPM	180 PPM	140 PPM	55 PPM	38 PPM
25.5 - 26.0	20.5 - 21.0	26.0 - 26.2	25.5 - 26.0	25.5 - 26.0	23.0 - 24.0
10.0 PPM	250 PPM	190 PPM	150 PPM	70 PPM	50 PPM
	25.5 - 26.0				24.0 -24.5
	200 PPM				70 PPM

FEET BELOW GROUND SURFACE
PARTS PER MILLION

5.0 ANALYTICAL RESULTS

The results of laboratory analysis conducted on soil samples recovered from the site are presented below.

5.1 PRIMARY LABORATORY SAMPLE ANALYSIS RESULTS

The results of all 108 soil sample analyzed by the primary laboratory indicated that TCLP-TCE was not present in any sample at concentrations equal to or greater than the reporting limit of 0.025 mg/L.

5.2 SECONDARY LABORATORY SAMPLE ANALYSIS RESULTS

The results of all 108 split samples analyzed by the secondary laboratory indicated that TCLP-TCE was not present in any sample at concentrations equal to or greater than reporting limit of 0.01 mg/ L.

5.3 DECONTAMINATIONS WATER RINSATE RESULTS

Analytical results from the analysis of the equipment decontamination rinsate do not indicate detectable concentrations of TCE.

5.4 DECONTAMINATION WATER SOURCE RESULTS

Analytical results from the analysis of the source of equipment decontamination water are not yet available.

6.0 CONCLUSIONS

The results of the laboratory analysis of 216 soil samples collected from beneath the former HWSF evaporation tank indicated that TCE-TCLP is not present in concentrations equal to or greater than the primary laboratory reporting limit of 0.025 mg/L. The previous February 1993 sampling indicates that the total TCE concentrations are less than the Subpart S proposed limit of 60.0 mg/Kg. No other analytes were investigated as part of this effort in accordance with the approved work plan.

7.0 RECOMMENDATIONS

Unconfined groundwater is present beneath the site at a depth of approximately 230 feet bgs. Four monitoring wells, TW-1 (22S.06E.16.233), TW-2 (22S.06E.16.234), TW-3 (22S.06E.16.234A), and TW-4 (22S.06E.16.412) are screened in this aquifer and water level measurements indicate that the direction of groundwater flow is to the southwest (Abeyta, 1992). The naturally occurring total dissolved solids (TDS) concentrations of groundwater in this area ranges from 10,000 to 35,000 mg/L rendering the water very saline and non-potable (Abeyta, 1992). These wells were sampled in 1989 and the samples analyzed for selected VOC's. The results at that time were all negative for except for toluene and the pesticide lindane, both of which were detected at concentrations below maximum contaminant levels (mcl's) (Abeyta, 1992).

8.0 REFERENCES

Abeyta, Cynthia G. 1992, Water Balance and Geohydrology of the Hazardous-Waste Disposal Facility, White Sands Missile Range, Otero County, New Mexico., U. S. Geological Survey Administrative Report. 1992.

Advanced Sciences,Inc. 1990, 40 Hour Health and Safety Training Course for Hazardous Waste Workers., 30 January 1990.

Advanced Sciences, Inc. 1993, Closure Report, U.S. Army White Sands Missile Range Evaporation Tank, 15 April 1993

Advanced Sciences, Inc. 1993, Closure Report, U.S. Army White Sands Missile Range Evaporation Tank, 15 December, 1993

Appendix A

Primary Laboratory Analytical Results

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 407003
Page 1 of 2

Project Name/No. 1 Evap Pools HWSF
Samples Shipment Date 7 1/5/95
Bill to: 5
Sample Team Members 2 Blaugh/Esquada/Gibbs
Lab Destination 8
Profit Center No. 3
Lab Contact 9 Chris
Project Manager 4 Gibbs/Blaugh
Project Contact/Phone 12 505-522-7228
Report to: 10
Purchase Order No. 6
Carrier/Waybill No. 13
Required Report Date 11 1/20/95

ONE CONTAINER PER LINE

Sample Number 14	Sample Description/Type 15	Date/Time Collected 16	Container Type 17	Sample Volume 18	Preservative 19	Requested Testing Program 20	Condition on Receipt 21	Disposal Record No. 22
AW-1	Soil	1-5-95 07:30	Tellon-lined Glass	6 inch x 2" ø	None	TCE - TCLP	FOR LAB USE ONLY	407003
AW-2	↓	1-5-95 07:40	↓	↓	↓	↓		
AW-3		1-5-95 07:45						
AW-4		1-5-95 07:[illegible]						
AW-5		1-5-95 08:0[illegible]					FOR LAB USE ONLY	
AW-10		1-5-95 08:10						
AW-15		1-5-95 08:20						
AW-21		1-5-95 08:35						

COPY

Special Instructions: 23

Possible Hazard Identification: 24
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal: 25
Return to Client ☐ Disposal by Lab ☒ Archive _____ (mos.)

Turnaround Time Required: 26
Normal ☐ Rush ☐

QC Level: 27
I. ☐ II. ☐ III. ☐ Project Specific (specify): _____

1. Relinquished by 28 (Signature/Affiliation) [signature]	Date: 1-5-95 Time: 1600	1. Received by 28 (Signature/Affiliation)	Date: Time:
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: 29

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INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No. 40700

Project Name Evap Tank HWSF

Project No. _____

Samples Shipment Date 1-5-95

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing 20 Program	Condition on 21 Receipt	Disposal 22 Record No.
AW-25	Soil	1.5.95 08:48	Teflon + Brass	6 inches x 2"Ø	None	TCLP-TCE		
AW-30		1.5.95 09:00					FOR LAB USE ONLY	
AS-01		1.5.95 09:43						
AS-02		1.5.95 ~~10:00~~ 09:45					FOR LAB USE ONLY	
AS-03		1.5.95 ~~09:55~~ 09:51						
AS-04		1.5.95 09:55						
AS-05		1.5.95 10:00					FOR LAB USE ONLY	
AS-10		1.5.95 10:0[illegible]						
AS-15		1.5.95 10:1[illegible]					FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	

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INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 407005
Page 1 of ____

Project Name/No. [1] EVAP TANK IIWSF
Sample Team Members [2] Blough, Esqueda, Giblin
Profit Center No. [3]
Project Manager [4] Blough, Giblin
Purchase Order No. [6]
Required Report Date [11] 1.20.95

Samples Shipment Date [7] 1-9-95
Lab Destination [8]
Lab Contact [9] Christopher Schepcoff
Project Contact/Phone [12] (505) 522 7229
Carrier/Waybill No. [13]

Bill to: [5]
Report to: [10]

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Yellow: Field copy

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Pre-servative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
AS-20.0-20.5	soil	1-7-95 08:25	TEFLON BRASS	6" x 2"	NONE	TCLP - TCE		
AS-25.0-25.5	↓	1-7-95 08:30	↓	↓	↓	↓	FOR LAB USE ONLY	
AN-1.0-1.5		1-7-95 09:00						
AN-2.5-2.75		1-7-95 09:05						
AN-3.0-3.5		1-7-95 09:10					FOR LAB USE ONLY	
AN-3.75-4.0		1-7-95 09:15						
AN-5.25-5.5		1-7-95 09:20						
AN-10.5-11.0	↓	1-7-95 09:23	↓	↓	↓	↓		

COPY

Special Instructions: [23]

Possible Hazard Identification: [24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☐ Archive _____ (mos.)

Turnaround Time Required: [26]
Normal ☐ Rush ☐

QC Level: [27]
I. ☐ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by [28] (Signature/Affiliation) Kelly T. Blough	Date: 1.9.95 Time: 1046	1. Received by [28] (Signature/Affiliation)	Date: Time:
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: [29]

*See back of form for special instructions.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No. 407009
Page 2 of 3

Project Name EVAP. TANK HWLS.F

Project No.

Samples Shipment Date 1-9-95

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing 20 Program	Condition on 21 Receipt	Disposal 22 Record No.
AN-15.0-15.5	Soil	1-7-95 09:25	TEFION BRASS	6" x 2"	NONE	TCLP-TCE		
AN-20.0-20.5		1-7-95 09:27					FOR LAB USE ONLY	
AN-25.0-25.5		1-7-95 09:30						
AE-1.0-1.5		1-7-95 09:52						
AE-1.75-2.0		1-7-95 09:54						
AE-3.0-3.5		1-7-95 09:57						
AE-3.75-4.0		1-7-95 09:59						
AE-5.5-5.6		1-7-95 10:01						
AE-10.0-10.5		1-7-95 10:03						
AE-15.0-15.5		1-7-95 10:07						
AE-20.0-20.5		1-7-95 10:11						
AE-25.5-26.0		1-7-95 10:16						
BW-1.0-1.5		1-7-95 12:15						
BW-1.75-2.0		1-7-95 12:17						
BW-3.0-3.5		1-7-95 12:21						
BW-3.75-4.0		1-7-95 12:25						
BW-5.5-6.0		1-7-95 12:29						
BW-10.0-10.5		1-7-95 12:33						
BW-15.5-16.0		1-7-95 12:36						
BW-[illegible]-20.5		1-7-95 12:41						

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No. 107005
Page 3 of 3

Project Name EVAP. TANK HWSF

Project No. _____

Samples Shipment Date 1-9-95

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing 20 Program	Condition on 21 Receipt	Disposal 22 Record No.
BW-250-25.5	Soil	1-7-95 12:49	TEFLON BRASS	6" x 2"	NONE	TCLP — TCE		
BS-1.0-1.5		1-7-95 12:19						
BS-1.75-2.0		1-7-95 12:22						
BS-3.0-3.5		1-7-95 12:24						
BS-3.75-4.0		1-7-95 12:26						
BS-5.5-6.0		1-7-95 12:28						
BS-10.0-10.5		1-7-95 13:33						
BS-15.0-15.5		1-7-95 13:38						
BS-20.0-20.5		1-7-95 13:41						
BS-25.0-25.5		1-7-95 13:57						

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 4173
Page 1 of 2

22

Project Name/No. 1 HWSF Evap Tank
Samples Shipment Date 7 1-9-95
Bill to: 5
Sample Team Members 2 Bloy, Gubbins, Esquela
Lab Destination 8
Profit Center No. 3
Lab Contact 9 Chris Scheperoff
Project Manager 4 Gubbins/Bloy
Project Contact/Phone 12 505-522-7229
Report to: 10
Purchase Order No. 6
Carrier/Waybill No. 13
Required Report Date 11 1-20-95

ONE CONTAINER PER LINE

Sample Number 14	Sample Description/Type 15	Date/Time Collected 16	Container Type 17	Sample Volume 18	Preservative 19	Requested Testing Program 20	Condition on Receipt 21	Disposal Record No. 22
CW 10.0-10.5	Soil	1418 1-8-95	Brass Teflon	6" 2.75	None	TCLP. TCE		
CS 15.0-15.5		1108 1-8-95					FOR LAB USE ONLY	
BE 10-1.5		1000 1-8-95						
8 BE 5.0-5.5		1004 1-8-95						
BN 1.0-1.5		0900 1-8-95						
CE 1.0-1.5		1302 1-8-95					FOR LAB USE ONLY	
CW 3.0 3.5		1411 1-8-95						
CE 25.0-25.5		~~1344~~ 1341 1-8-95						

COPY

Special Instructions: 23

Possible Hazard Identification: 24
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal: 25
Return to Client ☐ Disposal by Lab ☒ Archive _____ (mos.)

Turnaround Time Required: 26
Normal ☐ Rush ☐

QC Level: 27
I. ☐ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by 28 (Signature/Affiliation) Kelly T. Bloy	Date: 1-9-95 Time: 1041	1. Received by 28 (Signature/Affiliation)	Date: Time:
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: 29

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No. 417300
Page 2 of 2

Project Name HWSF Evap Tank

Project No.

Samples Shipment Date 1/9/95

ONE CONTAINER PER LINE

Sample Number 14	Sample Description/Type 15	Date/Time Collected 16	Container Type 17	Sample Volume 18	Preservative 19	Requested Testing Program 20	Condition on Receipt 21	Disposal Record No. 22
CW 5.0-5.5	Soil	1413 1-8-95	Brass Teflon	6"x2.75" ø	None	TCLP-TCE		
BN 20.0-20.5		0927 1-8-95					FOR LAB USE ONLY	
CE 3.75-4.0		1309 1-8-95						
CS 10.0-10.5		1303 1-8-95						
CE 5.5-6.0		1309 1-8-95					FOR LAB USE ONLY	
BN 25.0-25.5		0932 1-8-95						
CE 3.0-3.5		1306 1-8-95					FOR LAB USE ONLY	
BE 20.0-~~4.0~~ 20.5		1021 1-8-95						
CS 5.0-5.5		105[illegible] 1-8-95						
BN 4.0-4.5		0910 1-8-95					FOR LAB USE ONLY	
BN 15.0-15.5		0921 1-8-95						
BN 5.0-5.5		0912 1-8-95					FOR LAB USE ONLY	
BS 25.0-25.5		1126 1-8-95						
CS 20.0-20.5		1117 1-8-95						
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	

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White: To accompany samples
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INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document Page 1 of 3 · 40700

31

Project Name/No. 1 ~~HWSE~~ HWSF

Sample Team Members 2 G. Blair, Esquivel, Bleigh

Profit Center No. 3

Project Manager 4 G. Blair / Bleigh

Purchase Order No. 6

Required Report Date 11 ~~1.2~~ 1.20.95

Samples Shipment Date 7 1.9.95

Lab Destination 8

Lab Contact 9 Chris Schepcoff

Project Contact/Phone 12 505-522-7229

Carrier/Waybill No. 13

Bill to: 5

Report to: 10

ONE CONTAINER PER LINE

Sample Number 14	Sample Description/Type 15	Date/Time Collected 16	Container Type 17	Sample Volume 18	Preservative 19	Requested Testing Program 20	Condition on Receipt 21	Disposal Record No. 22
CW 3.75-4.0	Soil	1411 1.8.95	Brass Teflon	6"x2.75"	None	TCLP-TCF		
CW 2.0-2.5	↓	1411 1-8-95	↓	↓	↓	↓	FOR LAB USE ONLY	
CW 1.0-1.5		1408 1.8.95						
8 CW 2.0-2.5		1438 1.8.95						
BE 10.5-11.0		1008 1.8.95						
CN 3.0-3.5		1518 1.8.95					FOR LAB USE ONLY	
CS 4.0-4.5		1055 1.8.95						
BE 4.0-4.5	↓	1004 1.9.95	↓	↓	↓	↓		

COPY

Special Instructions: 23

Possible Hazard Identification: 24
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal: 25
Return to Client ☐ Disposal by Lab ☒ Archive _____ (mos.)

Turnaround Time Required: 26
Normal ☐ Rush ☐

QC Level: 27
I. ☐ II. ☐ III. ☐ Project Specific (specify): _____

1. Relinquished by 28 (Signature/Affiliation) Kelly J. Bleigh	Date: 1.9.95 Time: 1044	1. Received by 28 (Signature/Affiliation)	Date: Time:
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: 29

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INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] _____

Project Name _____ Project No. _____ Samples Shipment Date _____

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
BE 15.0-15.5	Soil	1014 1-8-95	Brass + Teflon	6" x 2.75" ø	None	TCLP-TCE		
CS 1.0-1.5		1048 1-8-95						
CN 5.0-5.5		1525 1-8-95						
CS 3.0-3.5		1053 1-8-95						
CN 2.0-2.5		1518 1-8-95						
CN 1.0-1.5		1515 1-8-95						
CN 10.0-10.5		1534 ~~1549~~ 1-8-95						
CS 2.0-2.5		1053* 1-8-95						
BE 1.75-2.0		1000 1-8-95						
BE 3.0-3.5		1002 1-8-95						
CN 20.0-20.5		1600 1-8-95						
CE 10.0-10.5		1317 1-8-95						
CN 15.5-16.0		1548 1-8-95						
BE 25.0-25.5		1026 1-8-95						
CE 15.0-15.5		1324 1-8-95						
BN 1.75-2.0		910 1-8-95						
CE 1.75-2.0		1306 1-8-95						
CW 20.0-20.5		1433 1-8-95						
CE 20.0-20.5		1332 1-8-95						
BN 10.0-10.5		0916 1-8-95						

COPY

White: To accompany samples
Yellow: Field copy

*See back of form for special instructions.

MCA 3/15/91

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No. _____

Project Name _____ Project No. _____ Samples Shipment Date _____

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing 20 Program	Condition on 21 Receipt	Disposal 22 Record No.
CW 15.0-15.5	Soil	1425 1.8.95	Brass Sleeve	6"x2.75" Ø	None	TCL - TCE		
3 CN 3.75-4.0	↓	1518 1.8.95	↓	↓				
CN 25.5-26.0	↓	1616 1.8.95	↓	↓				

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MCA 3/15/91

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

B501049

Reference Document No. 407003

Page 1 of 2

Project Name/No. [1] Evap Tank HWSF

Samples Shipment Date [7] 1/5/95

Bill to: [5]

Sample Team Members [2] Blough/Esgenaldi

Lab Destination [8]

Profit Center No. [3]

Lab Contact [9] Chris

Project Manager [4] Gibbs/Blough

Project Contact/Phone [12] 505-523-7228

Report to: [10]

Purchase Order No. [6]

Carrier/Waybill No. [13] Fedex 3082395584

Required Report Date [11] 1/20/95

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Pre-servative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
AW - 1	Soil	1-5-95 07:30	Teflon and Brass	6 inches x 2" ø	None	TCE - TCLP	Good 1-6-95	
AW - 2		1-5-95 07:40					Good	
AW - 3		1-5-95 07:45						
AW - 4		1-5-95 07:55						
AW - 5		1-5-95 08:00						
AW - 10		1-5-95 08:10						
AW - 15		1-5-95 08:20						
AW - 21		1-5-95 08:35						

Special Instructions: [23]

Possible Hazard Identification: [24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☒ Archive (mos.)

Turnaround Time Required: [26]
Normal ☐ Rush ☐

QC Level: [27]
I. ☐ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by [28] (Signature/Affiliation)	Date: 1-5-95 Time: 1600	1. Received by [28] (Signature/Affiliation)	Date: 1-6-95 Time: 0856
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: [29]

White: To accompany samples

Yellow: Field copy

*See back of form for special instructions.

B901049

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 407003

Page 2 of 2

Project Name Evap Tank HWSF

Project No.

Samples Shipment Date 1-5-95

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
AW-25	Soil	1-5-95 08:48	Teflon + Brass	6 inches x 2"Ø	None	TCLP - TCE	Good 1-6-95 see RVP's	
AW-30		1-5-95 09:00						
AS-01		1-5-95 09:43						
AS-02		1-5-95 ~~10:00~~ 9:45						
AS-03		1-5-95 ~~09:55~~ 09:51						
AS-04		1-5-95 09:55						
AS-05		1-5-95 10:00						
AS-10		1-5-95 10:05						
AS-15		1-5-95 10:15						

Yellow: Field copy

*See back of form for special instructions.

Quanterra
Environmental Services

CERTIFICATE OF ANALYSIS

ADVANCED SCIENCES INC
555 S TELSHOR
SUITE 310
LAS CRUCES NM 88001
KELLY BLOUGH

Date: 01/21/95

Work Order: B5-01-049

This is the Certificate of Analysis for the following samples:

Client Work ID: EVAP. TANK HWSF
Date Received: 01/06/95 08:56
Number of Samples: 18
Sample Type: SOIL

I. Introduction

Samples were labeled as follows:

SAMPLE IDENTIFICATION	LABORATORY #
AW-1	B5-01-049-01
AW-2	B5-01-049-02
AW-3	B5-01-049-03
AW-4	B5-01-049-04
AW-5	B5-01-049-05
AW-10	B5-01-049-06
AW-15	B5-01-049-07
AW-21	B5-01-049-08
AW-25	B5-01-049-09
AW-30	B5-01-049-10
AS-01	B5-01-049-11
AS-02	B5-01-049-12
AS-03	B5-01-049-13

Reviewed and Approved:

Jon Bartell
Laboratory Director

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

Samples, continued from above:

SAMPLE IDENTIFICATION	LABORATORY #
AS-04	B5-01-049-14
AS-05	B5-01-049-15
AS-10	B5-01-049-16
AS-15	B5-01-049-17
MATRIX SPIKE	B5-01-049-18

II. QA/QC

The results presented in this report meet the statement of work requirements in accordance with Quality Control and Quality Assurance protocol except as noted in Section IV or in an optional sample narrative at the end of Section III.

In the presented analytical data, 'ND' or '<' indicates that the compound is not detected at the specified limit.

III. Analytical Data

The following page(s) supply results for requested analyses performed on the samples listed above.

The test results relate to tested items only. Quanterra reserves the right to control report production except in whole.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-049

SAMPLE ID: AW-1
SAMPLE DATE: 01/05/95 07:30:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/09/95		DATE	01/09/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AW-1
SAMPLE DATE: 01/05/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/17/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	104	
Bromofluorobenzene	99	
1,2-Dichloroethane-D4	106	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-049

SAMPLE ID: AW-2
SAMPLE DATE: 01/05/95 07:40:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/09/95		DATE	01/09/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-(

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AW-2
SAMPLE DATE: 01/05/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/16/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	108	
Bromofluorobenzene	103	
1,2-Dichloroethane-D4	109	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-049

SAMPLE ID: AW-3
SAMPLE DATE: 01/05/95 07:45:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/09/95		DATE	01/09/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AW-3
SAMPLE DATE: 01/05/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/16/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	109	
Bromofluorobenzene	102	
1,2-Dichloroethane-D4	102	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-049

SAMPLE ID: AW-4
SAMPLE DATE: 01/05/95 07:55:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/09/95		DATE	01/09/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AW-4
SAMPLE DATE: 01/05/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/16/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	102	
Bromofluorobenzene	103	
1,2-Dichloroethane-D4	101	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-049

SAMPLE ID: AW-5
SAMPLE DATE: 01/05/95 08:00:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/10/95		DATE	01/09/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-(

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AW-5
SAMPLE DATE: 01/05/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/17/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	95	
Bromofluorobenzene	97	
1,2-Dichloroethane-D4	109	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-049

SAMPLE ID: AW-10
SAMPLE DATE: 01/05/95 08:10:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/09/95		DATE	01/09/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-(

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AW-10
SAMPLE DATE: 01/05/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/17/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	106	
Bromofluorobenzene	100	
1,2-Dichloroethane-D4	96	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-049

SAMPLE ID: AW-15
SAMPLE DATE: 01/05/95 08:20:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/09/95		DATE	01/09/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AW-15
SAMPLE DATE: 01/05/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/17/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	104	
Bromofluorobenzene	101	
1,2-Dichloroethane-D4	104	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-049

SAMPLE ID: AW-21
SAMPLE DATE: 01/05/95 08:35:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/10/95		DATE	01/09/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AW-21
SAMPLE DATE: 01/05/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/17/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	99	
Bromofluorobenzene	100	
1,2-Dichloroethane-D4	102	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-049

SAMPLE ID: AW-25
SAMPLE DATE: 01/05/95 08:48:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/09/95		DATE	01/09/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AW-25
SAMPLE DATE: 01/05/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/17/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	103	
Bromofluorobenzene	97	
1,2-Dichloroethane-D4	105	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-049

SAMPLE ID: AW-30
SAMPLE DATE: 01/05/95 09:00:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/09/95		DATE	01/09/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AW-30
SAMPLE DATE: 01/05/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/17/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	101	
Bromofluorobenzene	99	
1,2-Dichloroethane-D4	101	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-049

SAMPLE ID: AS-01
SAMPLE DATE: 01/05/95 09:43:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/09/95		DATE	01/09/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-(

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AS-01
SAMPLE DATE: 01/05/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/17/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	107	
Bromofluorobenzene	107	
1,2-Dichloroethane-D4	108	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-049

SAMPLE ID: AS-02
SAMPLE DATE: 01/05/95 09:45:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/09/95		DATE	01/09/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AS-02
SAMPLE DATE: 01/05/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/17/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	105	
Bromofluorobenzene	108	
1,2-Dichloroethane-D4	102	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-049

SAMPLE ID: AS-03
SAMPLE DATE: 01/05/95 09:51:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/09/95		DATE	01/09/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AS-03
SAMPLE DATE: 01/05/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/17/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	108	
Bromofluorobenzene	106	
1,2-Dichloroethane-D4	107	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-049

SAMPLE ID: AS-04
SAMPLE DATE: 01/05/95 09:55:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/10/95		DATE	01/09/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-(

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AS-04
SAMPLE DATE: 01/05/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	101	
Bromofluorobenzene	106	
1,2-Dichloroethane-D4	113	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-049

SAMPLE ID: AS-05
SAMPLE DATE: 01/05/95 10:00:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/09/95		DATE	01/09/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-(

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AS-05
SAMPLE DATE: 01/05/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/17/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	109	
Bromofluorobenzene	105	
1,2-Dichloroethane-D4	100	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-049

SAMPLE ID: AS-10
SAMPLE DATE: 01/05/95 10:05:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/10/95		DATE	01/09/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AS-10
SAMPLE DATE: 01/05/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/17/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	106	
Bromofluorobenzene	102	
1,2-Dichloroethane-D4	103	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-049

SAMPLE ID: AS-15
SAMPLE DATE: 01/05/95 10:15:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/10/95		DATE	01/09/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AS-15
SAMPLE DATE: 01/05/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/16/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	107	
Bromofluorobenzene	104	
1,2-Dichloroethane-D4	101	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-049

SAMPLE ID: **MATRIX SPIKE**
SAMPLE DATE:
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/10/95		DATE	01/09/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: MATRIX SPIKE
SAMPLE DATE:
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/16/95
DILUTION FACTOR: 5.0
UNITS: % REC

	Result
Vinyl chloride	107
1,1-Dichloroethylene	96
Chloroform	94
1,2-Dichloroethane	88
2-Butanone	96
Carbon tetrachloride	87
Trichloroethylene	95
Benzene	101
Tetrachloroethylene	104
Chlorobenzene	103

Surrogates	% Recovery
Toluene-D8	104
Bromofluorobenzene	102
1,2-Dichloroethane-D4	98

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-049

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **TCLP Volatiles from Leach.** TEST CODE **TCLP_V**

TCLP-Volatiles	Method 8240, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Purge and trap GC/MS analysis.

TEST NAME **Zero Headspace Extraction** TEST CODE **ZHE**

TCLP Preparation Zero Headspace	USEPA Method 1311-Federal Register Vol. 55, No. 126., June 29, 1990. Solid phase is extracted with a extraction fluid number one, equal to twenty times the weight of the solid phase. Extraction is performed in a zero-headspace apparatus meeting the specifications described in the method.

Method 8240 WATER

Quanterra QC Batch Summary

QC Batch ID	
Preprep Method:	
Prep Method:	
Analysis Method:	8240
Batch Date:	1//16/95
Instrument ID	C
Batch (set) #:	2
Test Code:	8240

Batch QC Information

Matrix: WATER Analyst: SJB

Units: UG/L

QC Sample	Lab ID	Dil.Factor	Date	Time
Method Blank ID:	CBL16	1.00	1/16/95	1915
LCS ID:	CLS16	1.00	1/16/95	2012
LCSD ID:				
MS Sample ID:	B501049-18MS	5.00	1/16/95	2138
MSD Sample ID:	B501049-18MSD	5.00	1/17/95	0600
Rep Sample ID:				

Sample Numbers Associated With Batch:

#	Lab Sample ID
1	B501049-01
2	B501049-02
3	B501049-03
4	B501049-04
5	B501049-05
6	B501049-06
7	B501049-07
8	B501049-08
9	B501049-09
10	B501049-10
11	B501049-11
12	B501049-12
13	B501049-13
14	B501049-14
15	B501049-15
16	B501049-16
17	B501049-17
18	
19	
20	

Data reported to: PQL

General Comments for Batch

TCLP spiking solution for MS/MSD

Method 8240 - WATER

C20116

Analyte:	Accuracy											Precision					
	Blank Data		Laboratory Control Samples										Replicate Sample Data				
	Method Blank Result ug/L	Reporting Limit ug/L	LCS True Value ug/L	LCS Conc. Found ug/L	LCS % Rec.	Q	LCSD Conc. Found ug/L	LCSD % Rec.	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for LCS/ LCSD % Rec.	Q	Original Result for Replicate ug/L	Replicate Result ug/L	Rep. % RPD	Q	% RPD Cntrl. Limit
Chloromethane	ND	10.00																
Bromomethane	ND	10.00																
Vinyl Chloride	ND	10.00																
Chloroethane	ND	10.00																
Acetone	ND	100.00																
Methylene Chloride	ND	10.00																
Carbon Disulfide	ND	5.00																
1,1-Dichloroethene	ND	5.00	50.0	50.33	101					61	145							14
1,1-Dichloroethane	ND	5.00																
trans 1,2-Dichloroethene	ND	5.00																
cis 1,2-Dichloroethene	ND	5.00																
Chloroform	ND	5.00																
1,2-Dichloroethane	ND	5.00																
2-Butanone	ND	100.00																
1,1,1-Trichloroethane	ND	5.00																
Carbon Tetrachloride	ND	5.00																
Vinyl Acetate	ND	10.00																
Bromodichloromethane	ND	5.00																
1,2-Dichloropropane	ND	5.00																
trans 1,3-Dichloropropene	ND	5.00																
Trichloroethene	ND	5.00	50.0	48.54	93					71	120							14
Dibromochloromethane	ND	5.00																
1,1,2 Trichloroethane	ND	5.00																
Benzene	ND	5.00	50.0	52.12	104					76	127							11
2-Hexanone	ND	50.00																

Qualifiers(Q): * - Replicate % RPD was outside control limits

N - LCS recovery was outside method control limits

R - Percent RPD for LCS/LCSD recoveries was outside control limits

Comments:

Method 8240 - WATER

C20116

Analyte:	Accuracy											Precision						
	Blank Data		Laboratory Control Samples											Replicate Sample Data				
	Method Blank Result ug/L	Reporting Limit ug/L	LCS True Value ug/L	LCS Conc. Found ug/L	LCS % Rec.	Q	LCSD Conc. Found ug/L	LCSD % Rec.	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for LCS/ LCSD % Rec.	Q	Original Result for Replicate ug/L	Replicate Result ug/L	Rep % RPD	Q	% RPD Cntrl. Limit
4-Methyl-2-Pentanone	ND	50.00																
Tetrachloroethene	ND	5.00																
1,1,2,2-Tetrachloroethane	ND	5.00																
Toluene	ND	5.00	50.0	55.90	112					76	125							13
Chlorobenzene	ND	5.00	50.0	56.01	112					75	130							13
Ethyl Benzene	ND	5.00																
Styrene	ND	5.00																
Xylenes, total	ND	5.00																
1,4-Dichlorobenzene	ND	5.00																
d8-Toluene	104				106					88	110							
Bromofluorobenzene	101				98					86	115							
1,2-Dichloroethane-d4	99				104					76	114							

Qualifiers(Q): * - Replicate % RPD was outside control limits

N - LCS recovery was outside method control limits

R - Percent RPD for LCS/LCSD recoveries was outside control limits

Comments:

Method 8240 - WATER

Quanterra QC Batch Summary

B501049

Analyte:	Accuracy										Precision			
	Matrix Spike/Matrix Spike Dup Batch QC Data													
	Unspiked Sample Result ug L	MS Result ug L	Spike Added ug L	MS % Rec	Q	MSD Result ug L	MSD % Rec	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for MS/MS % Rec.	% RPD for As Reps.	Q	% RPD Control Limits
1,1-Dichloroethene	0.0	192	200	96		192	96		61	145	0.0			14
Trichloroethene	0.0	190	200	95		175	87		71	120	8.5			14
Benzene	0.0	203	200	102		189	95		76	127	7.0			11
Toluene	0.0	0	0			0			76	125				13
Chlorobenzene	0.0	205	200	103		198	99		75	130	3.6			13
d8-Toluene				104			109		88	110	4.7			
Bromofluorobenzene				102			107		86	115	4.8			
1,2-Dichloroethane-d4				98			100		76	114	2.0			

Qualifiers(Q): H - Sample Concentration was greater than five times the spike level

N - Spike recovery was outside method control limits

R - Percent RPD for MS/MSD recoveries was outside control limits

D - Sample concentration was greater than five times the spike level

The RPD was calculated between the MS and MSD Results as relicates

Comments:

B501074

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 407005
Page 1 of 3

Project Name/No. [1] EVAP TANK H.W.S.F
Sample Team Members [2] Blough, Esqueda, Giblin
Profit Center No. [3]
Project Manager [4] Blough, Giblin
Purchase Order No. [6]
Required Report Date [11] 1:20:95

Samples Shipment Date [7] 1-9-95
Lab Destination [8]
Lab Contact [9] [redacted] Christopher Schepcoff
Project Contact/Phone [12] (505) 522-7229
Carrier/Waybill No. [13] Fedex 3052365526 2

Bill to: [5]
Report to: [10]

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Preservative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
AS-20.0-20.5	Soil	1-7-95 08:25	Teflon Brass	6" x 2"	None	TCLP - TCE		
AS-25.0-25.5		1-7-95 08:30					1/10/95	
AN-1.0-1.5		1-7-95 09:00						
AN-2.5-2.75		1-7-95 09:05						
AN-3.0-3.5		1-7-95 09:10						
AN-3.75-4.0		1-7-95 09:15						
AN-5.25-5.5		1-7-95 09:20						
AN-10.5-11.0		1-7-95 09:23						

Special Instructions: [23]

Possible Hazard Identification: [24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☐ Archive (mos.)

Turnaround Time Required: [26]
Normal ☐ Rush ☐

QC Level: [27]
I. ☐ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by [28] (Signature/Affiliation) Willy Blough	Date: 1-9-95 Time: 1046	1. Received by [28] (Signature/Affiliation) Jaime Nolt QI	Date: 1/10/95 Time: 0600
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: [29]

Yellow: Field copy

*See back of form for special instructions.

B501074

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 407005

Page 2 of 3

Project Name EVAP. TANK H.W.S.F

Project No.

Samples Shipment Date 1-9-95

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
AN-15.0-15.5	Soil	1-7-95 09:25	TEFION BRASS	6" x 2"	NONE	TCLP-TCE	1°C 1/10/95	
AN-20.0-20.5		1-7-95 09:27					signature	
AN-25.0-25.5		1-7-95 09:30						
AE-1.0-1.5		1-7-95 09:52						
AE-1.75-2.0		1-7-95 09:54						
AE-3.0-3.5		1-7-95 09:57						
AE-3.75-4.0		1-7-95 09:59						
AE-5.5-5.6		1-7-95 10:01						
AE-10.0-10.5		1-7-95 10:05						
AE-15.0-15.5		1-7-95 10:07						
AE-20.0-20.5		1-7-95 10:11						
AE-25.5-26.0		1-7-95 10:16						
BW-1.0-1.5		1-7-95 12:15						
BW-1.75-2.0		1-7-95 12:17						
BW-3.0-3.5		1-7-95 12:21						
BW-3.75-4.0		1-7-95 12:25						
BW-5.5-6.0		1-7-95 12:29						
BW-10.0-10.5		1-7-95 12:33						
BW-15.5-16.0		1-7-95 12:36						
BW-20.0-20.5		1-7-95 12:41						

White: To accompany samples

Yellow: Field copy

*See back of form for special instructions.

B501074

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 407005

Page 3 of 3

Project Name EVAP. TANK HWSF

Project No.

Samples Shipment Date 1-9-95

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
BW-250-25.5	Soil	1-7-95 12:49	TEFLON BRASS	6" x 2"	NONE	TCLP — TCE	good 10C	
BS-1.0-1.5		1-7-95 13:19					1/10/95	
BS-1.75-2.0		1-7-95 13:22						
BS-3.0-3.5		1-7-95 13:29						
BS-3.75-4.0		1-7-95 13:26						
BS-5.5-6.0		1-7-95 13:28						
BS-10.0-10.5		1-7-95 13:33						
BS-15.0-15.5		1-7-95 13:38						
BS-20.0-20.5		1-7-95 13:48						
BS-25.0-25.5		1-7-95 13:57						

White: To accompany samples

Yellow: Field copy

*See back of form for special instructions.

MCA 3/15/91

Quanterra
Environmental Services

CERTIFICATE OF ANALYSIS

ADVANCED SCIENCES INC
555 S TELSHOR
SUITE 310
LAS CRUCES NM 88001
KELLY BLOUGH

Date: 01/21/95

Work Order: B5-01-074

This is the Certificate of Analysis for the following samples:

Client Work ID: EVAP. TANK HWSF
Date Received: 01/10/95 09:06
Number of Samples: 20
Sample Type: SOIL

I. Introduction

Samples were labeled as follows:

SAMPLE IDENTIFICATION	LABORATORY #
AS-20.0-20.5	B5-01-074-01
AS-25.0-25.5	B5-01-074-02
AN-1.0-1.5	B5-01-074-03
AN-2.5-2.75	B5-01-074-04
AN-3.0-3.5	B5-01-074-05
AN-3.75-4.0	B5-01-074-06
AN-5.25-5.5	B5-01-074-07
AN-10.5-11.0	B5-01-074-08
AN-15.0-15.5	B5-01-074-09
AN-20.0-20.5	B5-01-074-10
AN-25.0-25.5	B5-01-074-11
AE-1.0-1.5	B5-01-074-12
AE-1.75-2.0	B5-01-074-13

Reviewed and Approved:

Jon Bartell
Laboratory Director

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

Samples, continued from above:

SAMPLE IDENTIFICATION	LABORATORY #
AE-3.0-3.5	B5-01-074-14
AE-3.75-4.0	B5-01-074-15
AE-5.5-5.6	B5-01-074-16
AE-10.0-10.5	B5-01-074-17
AE-15.0-15.5	B5-01-074-18
AE-20.0-20.5	B5-01-074-19
MATRIX SPIKE	B5-01-074-20

II. QA/QC

The results presented in this report meet the statement of work requirements in accordance with Quality Control and Quality Assurance protocol except as noted in Section IV or in an optional sample narrative at the end of Section III.

In the presented analytical data, 'ND' or '<' indicates that the compound is not detected at the specified limit.

III. Analytical Data

The following page(s) supply results for requested analyses performed on the samples listed above.

The test results relate to tested items only. Quanterra reserves the right to control report production except in whole.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-074

SAMPLE ID: AS-20.0-20.5
SAMPLE DATE: 01/07/95 08:25:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/12/95		DATE	01/12/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AS-20.0-20.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	94	
Bromofluorobenzene	90	
1,2-Dichloroethane-D4	96	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-074

SAMPLE ID: AS-25.0-25.5
SAMPLE DATE: 01/07/95 08:30:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/12/95		DATE	01/12/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-(

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AS-25.0-25.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	96	
Bromofluorobenzene	91	
1,2-Dichloroethane-D4	94	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-074

SAMPLE ID: AN-1.0-1.5
SAMPLE DATE: 01/07/95 09:00:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/12/95		DATE	01/12/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-(

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AN-1.0-1.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	94	
Bromofluorobenzene	89	
1,2-Dichloroethane-D4	96	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-074

SAMPLE ID: AN-2.5-2.75
SAMPLE DATE: 01/07/95 09:05:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/12/95		DATE	01/12/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AN-2.5-2.75
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	95	
Bromofluorobenzene	90	
1,2-Dichloroethane-D4	94	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-074

SAMPLE ID: AN-3.0-3.5
SAMPLE DATE: 01/07/95 09:10:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/12/95		DATE	01/12/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AN-3.0-3.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	94	
Bromofluorobenzene	88	
1,2-Dichloroethane-D4	95	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-074

SAMPLE ID: AN-3.75-4.0
SAMPLE DATE: 01/07/95 09:15:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/12/95		DATE	01/12/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-(

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AN-3.75-4.0
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	94	
Bromofluorobenzene	89	
1,2-Dichloroethane-D4	96	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-074

SAMPLE ID: AN-5.25-5.5
SAMPLE DATE: 01/07/95 09:20:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/13/95		DATE	01/12/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-(

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AN-5.25-5.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/19/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	91	
Bromofluorobenzene	92	
1,2-Dichloroethane-D4	93	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-074

SAMPLE ID: AN-10.5-11.0
SAMPLE DATE: 01/07/95 09:23:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/13/95		DATE	01/12/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AN-10.5-11.0
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/19/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	92	
Bromofluorobenzene	90	
1,2-Dichloroethane-D4	93	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-074

SAMPLE ID: AN-15.0-15.5
SAMPLE DATE: 01/07/95 09:25:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/13/95		DATE	01/12/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AN-15.0-15.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/19/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	92	
Bromofluorobenzene	93	
1,2-Dichloroethane-D4	93	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-074

SAMPLE ID: AN-20.0-20.5
SAMPLE DATE: 01/07/95 09:27:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/13/95		DATE	01/12/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AN-20.0-20.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/19/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	89	
Bromofluorobenzene	92	
1,2-Dichloroethane-D4	94	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-074

SAMPLE ID: AN-25.0-25.5
SAMPLE DATE: 01/07/95 09:30:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/13/95		DATE	01/12/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AN-25.0-25.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/19/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	93	
Bromofluorobenzene	93	
1,2-Dichloroethane-D4	95	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-074

SAMPLE ID: AE-1.0-1.5
SAMPLE DATE: 01/07/95 09:52:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/13/95		DATE	01/12/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-[illegible]

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AE-1.0-1.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/19/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	94	
Bromofluorobenzene	91	
1,2-Dichloroethane-D4	93	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-074

SAMPLE ID: AE-1.75-2.0
SAMPLE DATE: 01/07/95 09:54:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/13/95		DATE	01/12/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AE-1.75-2.0
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/19/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	91	
Bromofluorobenzene	91	
1,2-Dichloroethane-D4	93	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-074

SAMPLE ID: AE-3.0-3.5
SAMPLE DATE: 01/07/95 09:57:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/13/95		DATE	01/12/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AE-3.0-3.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/19/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	90	
Bromofluorobenzene	89	
1,2-Dichloroethane-D4	93	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-074

SAMPLE ID: AE-3.75-4.0
SAMPLE DATE: 01/07/95 09:59:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/13/95		DATE	01/12/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AE-3.75-4.0
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/19/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	91	
Bromofluorobenzene	92	
1,2-Dichloroethane-D4	95	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-074

SAMPLE ID: AE-5.5-5.6
SAMPLE DATE: 01/07/95 10:01:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/13/95		DATE	01/12/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-07

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AE-5.5-5.6
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/19/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	91	
Bromofluorobenzene	89	
1,2-Dichloroethane-D4	93	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-074

SAMPLE ID: AE-10.0-10.5
SAMPLE DATE: 01/07/95 10:05:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/13/95		DATE	01/12/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AE-10.0-10.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/19/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	91	
Bromofluorobenzene	90	
1,2-Dichloroethane-D4	94	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-074

SAMPLE ID: AE-15.0-15.5
SAMPLE DATE: 01/07/95 10:07:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/13/95		DATE	01/12/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AE-15.0-15.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/19/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	91	
Bromofluorobenzene	92	
1,2-Dichloroethane-D4	91	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-074

SAMPLE ID: AE-20.0-20.5
SAMPLE DATE: 01/07/95 10:11:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/17/95		DATE	01/12/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-07

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AE-20.0-20.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/19/95
DILUTION FACTOR: 5.0
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	91	
Bromofluorobenzene	92	
1,2-Dichloroethane-D4	94	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-074

SAMPLE ID: **MATRIX SPIKE**
SAMPLE DATE:
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/17/95		DATE	01/12/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: MATRIX SPIKE
SAMPLE DATE:
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/19/95
DILUTION FACTOR: 5.0
UNITS: % REC

	Result
Vinyl chloride	86
1,1-Dichloroethylene	85
Chloroform	85
1,2-Dichloroethane	87
2-Butanone	89
Carbon tetrachloride	83
Trichloroethylene	79
Benzene	85
Tetrachloroethylene	79
Chlorobenzene	80

Surrogates	% Recovery
Toluene-D8	92
Bromofluorobenzene	92
1,2-Dichloroethane-D4	98

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/21/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-074

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **TCLP Volatiles from Leach.** TEST CODE **TCLP_V**

TCLP-Volatiles	Method 8240, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Purge and trap GC/MS analysis.

TEST NAME **Zero Headspace Extraction** TEST CODE **ZHE**

TCLP Preparation Zero Headspace	USEPA Method 1311-Federal Register Vol. 55, No. 126., June 29, 1990. Solid phase is extracted with a extraction fluid number one, equal to twenty times the weight of the solid phase. Extraction is performed in a zero-headspace apparatus meeting the specifications described in the method.

Method 8240 WATER

Quanterra QC Batch Summary

QC Batch ID	A10118
Preprep Method:	
Prep Method:	
Analysis Method:	8240
Batch Date:	1/18/95
Instrument ID	A
Batch (set) #:	1
Test Code:	8240

Batch QC Information

Matrix: WATER Analyst: SRB

Units: UG/L

QC Sample	Lab ID	Dil.Factor	Date	Time
Method Blank ID:	ABK18	1.00	1/18/95	1134
LCS ID:	ABS18	1.00	1/18/95	1239
LCSD ID:				
MS Sample ID:	B501073-14MS	1.00	1/18/95	1526
MSD Sample ID:	B501073-14MSD	1.00	1/18/95	1556
Rep Sample ID:				

Sample Numbers Associated With Batch:

#	Lab Sample ID
1	B501073-12
2	B501073-13
3	B501073-14
4	B501073-15
5	B501073-16
6	B501073-17
7	B501073-18
8	B501073-20
9	B501073-21
10	B501074-BLK
11	B501074-01
12	B501074-02
13	B501074-03
14	B501074-04
15	B501074-05
16	B501074-06
17	
18	
19	
20	

Data reported to: PQL

General Comments for Batch

BASED ON LCS AND MS

MSD DID NOT HAVE ISTD /SS

A10118

Analyte:	Accuracy													Precision				
	Blank Data		Laboratory Control Samples											Replicate Sample Data				
	Method Blank Result ug/L	Reporting Limit ug/L	LCS True Value ug/L	LCS Conc. Found ug/L	LCS % Rec.	Q	LCSD Conc. Found ug/L	LCSD % Rec.	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for LCS/ LCSD % Rec.	Q	Original Result for Replicate ug/L	Replicate Result ug/L	Rep. % RPD	Q	% RPD Cntrl. Limit
Chloromethane	ND	10.00																
Bromomethane	ND	10.00																
Vinyl Chloride	ND	10.00																
Chloroethane	ND	10.00																
Acetone	ND	100.00																
Methylene Chloride	ND	10.00																
Carbon Disulfide	ND	5.00																
1,1-Dichloroethene	ND	5.00	50.0	42.33	85					61	145							14
1,1-Dichloroethane	ND	5.00																
trans 1,2-Dichloroethene	ND	5.00																
cis 1,2-Dichloroethene	ND	5.00																
Chloroform	ND	5.00																
1,2-Dichloroethane	ND	5.00																
2-Butanone	ND	100.00																
1,1,1-Trichloroethane	ND	5.00																
Carbon Tetrachloride	ND	5.00																
Vinyl Acetate	ND	10.00																
Bromodichloromethane	ND	5.00																
1,2-Dichloropropane	ND	5.00																
trans 1,3-Dichloropropene	ND	5.00																
Trichloroethene	ND	5.00	50.0	45.09	90					71	120							14
Dibromochloromethane	ND	5.00																
1,1,2 Trichloroethane	ND	5.00																
Benzene	ND	5.00	50.0	45.28	91					76	127							11
2-Hexanone	ND	50.00																

Qualifiers(Q): * - Replicate % RPD was outside control limits

N - LCS recovery was outside method control limits

R - Percent RPD for LCS/LCSD recoveries was outside control limits

Comments:

A10118

Analyte:	Accuracy													Precision				
	Blank Data		Laboratory Control Samples											Replicate Sample Data				
	Method Blank Result ug/L	Reporting Limit ug/L	LCS True Value ug/L	LCS Conc. Found ug/L	LCS % Rec.	Q	LCSD Conc. Found ug/L	LCSD % Rec.	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for LCS/ LCSD % Rec.	Q	Original Result for Replicate ug/L	Replicate Result ug/L	Rep % RPD	Q	% RPD Cntrl. Limit
4-Methyl-2-Pentanone	ND	50.00																
Tetrachloroethene	ND	5.00																
1,1,2,2-Tetrachloroethane	ND	5.00																
Toluene	ND	5.00	50.0	44.38	89					76	125							13
Chlorobenzene	ND	5.00	50.0	44.61	89					75	130							13
Ethyl Benzene	ND	5.00																
Styrene	ND	5.00																
Xylenes, total	ND	5.00																
1,4-Dichlorobenzene	ND	5.00																
d8-Toluene	94				95					88	110							
Bromofluorobenzene	89				89					86	115							
1,2-Dichloroethane-d4	101				99					76	114							

Qualifiers(Q): * - Replicate % RPD was outside control limits

N - LCS recovery was outside method control limits

R - Percent RPD for LCS/LCSD recoveries was outside control limits

Comments:

Method 8240 - WATER

Quanterra QC Batch Summary

A10117

Analyte:	Accuracy										Precision			
	Matrix Spike/Matrix Spike Dup Batch QC Data													
	Unspiked Sample Result ug/L	MS Result ug/L	Spike Added ug/L	MS % Rec	Q	MSD Result ug/L	MSD % Rec	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for MS/MS % Rec.	% RPD for As Reps.	Q	% RPD Control Limits
1,1-Dichloroethene	0.0	186	250	75		0	0		61	145	200.0			14
Trichloroethene	0.0	205	250	82		0	0		71	120	200.0			14
Benzene	0.0	209	250	84		0	0		76	127	200.0			11
Toluene	0.0	203	250	81		0	0		76	125	200.0			13
Chlorobenzene	0.0	212	250	85		0	0		75	130	200.0			13
d8-Toluene				96			0		88	110	200.0			
Bromofluorobenzene				91			0		86	115	200.0			
1,2-Dichloroethane-d4				97			0		76	114	200.0			

% RPD
ms to LCS

10
8
7
8
4

Qualifiers(Q):

H - Sample Concentration was greater than five times the spike level

N - Spike recovery was outside method control limits

R - Percent RPD for MS/MSD recoveries was outside control limits

D - Sample concentration was greater than five times the spike level

The RPD was calculated between the MS and MSD Results as relicates

Comments:

MSD DID NOT

IMVO ISTD/SS

Method 8240 WATER

Quanterra QC Batch Summary

QC Batch ID	A20119
Preprep Method:	
Prep Method:	
Analysis Method:	8240
Batch Date:	1/19/95
Instrument ID	A
Batch (set) #:	1
Test Code:	8240

Batch QC Information

Matrix: WATER Analyst: SRB

Units: UG/L

QC Sample	Lab ID	Dil.Factor	Date	Time
Method Blank ID:	ABL19	1.00	1/19/95	1022
LCS ID:	ALS19	1.00	1/19/95	1122
LCSD ID:				
MS Sample ID:	B501074-08MS	1.00	1/19/95	1424
MSD Sample ID:	B501074-08MSD	1.00	1/19/95	1454
Rep Sample ID:				

Sample Numbers Associated With Batch:

#	Lab Sample ID
1	B501074-07
2	B501074-08
3	B501074-09
4	B501074-10
5	B501074-11
6	B501074-12
7	B501074-13
8	B501074-14
9	B501074-15
10	B501074-16
11	B501074-17
12	B501074-18
13	B501074-19
14	B501074-19D
15	
16	
17	
18	
19	
20	

Data reported to: PQL

General Comments for Batch

A20119

Analyte:	Accuracy													Precision				
	Blank Data		Laboratory Control Samples											Replicate Sample Data				
	Method Blank Result ug/L	Reporting Limit ug/L	LCS True Value ug/L	LCS Conc Found ug/L	LCS % Rec.	Q	LCSD Conc. Found ug/L	LCSD % Rec.	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for LCS/ LCSD % Rec.	Q	Original Result for Replicate ug/L	Replicate Result ug/L	Rep. % RPD	Q	% RPD Cntrl. Limit
Chloromethane	ND	10.00																
Bromomethane	ND	10.00																
Vinyl Chloride	ND	10.00																
Chloroethane	ND	10.00																
Acetone	ND	100.00																
Methylene Chloride	ND	10.00																
Carbon Disulfide	ND	5.00																
1,1-Dichloroethene	ND	5.00	50.0	39.64	79					61	145							14
1,1-Dichloroethane	ND	5.00																
trans 1,2-Dichloroethene	ND	5.00																
cis 1,2-Dichloroethene	ND	5.00																
Chloroform	ND	5.00																
1,2-Dichloroethane	ND	5.00																
2-Butanone	ND	100.00																
1,1,1-Trichloroethane	ND	5.00																
Carbon Tetrachloride	ND	5.00																
Vinyl Acetate	ND	10.00																
Bromodichloromethane	ND	5.00																
1,2-Dichloropropane	ND	5.00																
trans 1,3-Dichloropropene	ND	5.00																
Trichloroethene	ND	5.00	50.0	41.28	83					71	120							14
Dibromochloromethane	ND	5.00																
1,1,2 Trichloroethane	ND	5.00																
Benzene	ND	5.00	50.0	44.26	89					76	127							11
2-Hexanone	ND	50.00																

Qualifiers(Q): * - Replicate % RPD was outside control limits

N - LCS recovery was outside method control limits

R - Percent RPD for LCS/LCSD recoveries was outside control limits

Comments:

Method 8240 - WATER

A20119

Analyte:	Accuracy											Precision					
	Blank Data		Laboratory Control Samples										Replicate Sample Data				
	Method Blank Result ug/L	Reporting Limit ug/L	LCS True Value ug/L	LCS Conc. Found ug/L	LCS % Rec.	Q	LCSD Conc. Found ug/L	LCSD % Rec.	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for LCS/ LCSD % Rec.	Q	Original Result for Replicate ug/L	Replicate Result ug/L	Rep. % RPD	Q	% RPD Cntrl. Limit
4-Methyl-2-Pentanone	ND	50.00																
Tetrachloroethene	ND	5.00																
1,1,2,2-Tetrachloroethane	ND	5.00																
Toluene	ND	5.00	50.0	43.74	87					76	125							13
Chlorobenzene	ND	5.00	50.0	42.87	86					75	130							13
Ethyl Benzene	ND	5.00																
Styrene	ND	5.00																
Xylenes, total	ND	5.00																
1,4-Dichlorobenzene	ND	5.00																
d8-Toluene	92				93					88	110							
Bromofluorobenzene	94				90					86	115							
1,2-Dichloroethane-d4	96				95					76	114							

Qualifiers(Q): * - Replicate % RPD was outside control limits

N - LCS recovery was outside method control limits

R - Percent RPD for LCS/LCSD recoveries was outside control limits

Comments:

Method 8240 - WATER

Quanterra QC Batch Summary

A20119

Analyte:	Accuracy										Precision			
	Matrix Spike/Matrix Spike Dup Batch QC Data													
	Unspiked Sample Result ug/L	MS Result ug/L	Spike Added ug/L	MS % Rec	Q	MSD Result ug/L	MSD % Rec	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for MS/MS % Rec.	% RPD for As Reps.	Q	% RPD Control Limits
1,1-Dichloroethene	0.0	184	250	74		193	77		61	145	4.7			14
Trichloroethene	0.0	198	250	79		208	83		71	120	5.2			14
Benzene	0.0	213	250	85		222	89		76	127	4.4			11
Toluene	0.0	203	250	81		211	84		76	125	3.5			13
Chlorobenzene	0.0	208	250	83		218	87		75	130	5.0			13
d8-Toluene				92			90		88	110	2.2			
Bromofluorobenzene				87			92		86	115	5.6			
1,2-Dichloroethane-d4				94			94		76	114	0.0			

Qualifiers(Q): H - Sample Concentration was greater than five times the spike level

N - Spike recovery was outside method control limits

R - Percent RPD for MS/MSD recoveries was outside control limits

D - Sample concentration was greater than five times the spike level

The RPD was calculated between the MS and MSD Results as relicates

Comments:

B501077

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 40700
Page 1 of 3

Project Name/No. [1] ~~HWSE~~ HWSF
Samples Shipment Date [7] 1·9·95
Bill to: [5]
Sample Team Members [2] Giblin, Esquedo, Bleagh
Lab Destination [8]
Profit Center No. [3]
Lab Contact [9] Chris Scheperoff
Project Manager [4] Giblin / Bleagh
Project Contact/Phone [12] 505-522-7229
Report to: [10]
Purchase Order No. [6]
Carrier/Waybill No. [13] FedEx 308 23 953 3
Required Report Date [11] ~~2·2~~ 1·20·95

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Pre-servative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
CW 3.75-4.0	Soil	1411 1·8·95	Brass Teflon	6"x2.75" ø	None	TCLP-TCE	8 TCE 1	
CW 2.0-2.5	↓	1411 1-8-95	↓	↓	↓	↓	1°C 1/10/95	
CW 1.0-1.5	↓	1408 1·8-95	↓	↓	↓	↓	8	
CW 25.0-25.5	↓	1438 1·8·95	↓	↓	↓	↓	↓	
BE 10.5-11.0	↓	1008 1·8·95	↓	↓	↓	↓	↓	
CN 3.0-3.5	↓	1518 1·8·95	↓	↓	↓	↓	↓	
CS 4.0-4.5	↓	1055 1-8-95	↓	↓	↓	↓	↓	
BE 4.0-4.5	↓	1004 1-8-95	↓	↓	↓	↓	↓	

Special Instructions: [23]

Possible Hazard Identification: [24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☒ Archive (mos.)

Turnaround Time Required: [26]
Normal ☐ Rush ☐

QC Level: [27]
I. ☐ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by [28] (Signature/Affiliation) Kelly Z. Bleagh	Date: 1·9·95 Time: 1044	1. Received by [28] (Signature/Affiliation) Jerome Blalt QI	Date: 1/10/95 Time: 0906
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comment [29]

See back of form for special instructions.

B5C1C77

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] _____

Project Name _____ Project No. _____ Samples Shipment Date _____

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
BE 15.0-15.5	Soil	1014 1-8-95	Brass & Teflon	6"x2.75" Ø	None	TCLP-TCE	good / 1°C	
CS 1.0-1.5		1048 1-8-95					1/10/95	
CN 5.0-5.5		1525 1-8-95						
CS 3.0-3.5		1053 1-8-95						
CN 2.0-2.5		1518 1-8-95						
CN 1.0-1.5		1515 1-8-95						
CW 10.0-10.5		1539 ~~1537~~ 1-8-95						
CS 2.0-2.5		1053 1-8-95						
BE 1.75-2.0		1000 1-8-95						
BE 3.0-3.5		1002 1-8-95						
CN 20.0-20.5		1600 1-8-95						
CE 10.0-10.5		1317 1-8-95						
CN 15.5-16.0		1548 1-8-95						
BE 25.0-25.5		1026 1-8-95						
CE 15.0-15.5		1324 1-8-95						
BN 1.75-2.0		910 1-8-95						
CE 1.75-2.0		1306 1-8-95						
CW 20.0-20.5		1433 1-8-95						
CE 20.0-20.5		1332 1-8-95						
BW 10.0-10.5		0916 1-8-95						

White: To accompany samples
Yellow: Field copy

*See back of form for special instructions.

B501077

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] _____

Project Name

Project No.

Samples Shipment Date

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
CW 15.0-15.5	Soil	1425 1.8.95	Brass Teflon	6"x2.75" ø	None	TCLP-TCE	good	
CN 3.75-4.0	↓	1518 1.8.95	↓	↓			10°C 1/10/95	
CN 25.5-26.0	↓	1616 1.8.95	↓	↓			gn	

See back of form for special instructions.

Quanterra
Environmental Services

CERTIFICATE OF ANALYSIS

ADVANCED SCIENCES INC
555 S TELSHOR
SUITE 310
LAS CRUCES NM 88001
KELLY BLOUGH

Date: 01/26/95

Work Order: B5-01-077

This is the Certificate of Analysis for the following samples:

Client Work ID: EVAP. TANK HWSF
Date Received: 01/10/95 09:06
Number of Samples: 12
Sample Type: SOIL

I. Introduction

Samples were labeled as follows:

SAMPLE IDENTIFICATION	LABORATORY #
CN 15.5-16.0	B5-01-077-01
BE 25.0-25.5	B5-01-077-02
CE 15.0-15.5	B5-01-077-03
BN 1.75-2.0	B5-01-077-04
CE 1.75-2.0	B5-01-077-05
CW 20.0-20.5	B5-01-077-06
CE 20.0-20.5	B5-01-077-07
BN 10.0-10.5	B5-01-077-08
CW 15.0-15.5	B5-01-077-09
CN 3.75-4.0	B5-01-077-10
CN 25.5-26.0	B5-01-077-11
MATRIX SPIKE	B5-01-077-12

Reviewed and Approved:

Jon Bartell
Laboratory Director

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-(

II. QA/QC

The results presented in this report meet the statement of work requirements in accordance with Quality Control and Quality Assurance protocol except as noted in Section IV or in an optional sample narrative at the end of Section III.

In the presented analytical data, 'ND' or '<' indicates that the compound is not detected at the specified limit.

III. Analytical Data

The following page(s) supply results for requested analyses performed on the samples listed above.

The test results relate to tested items only. Quanterra reserves the right to control report production except in whole.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-077

SAMPLE ID: CN 15.5-16.0
SAMPLE DATE: 01/08/95 15:48:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/19/95		DATE	01/19/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-(

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CN 15.5-16.0
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/23/95
FIRST ANALYSIS: 01/23/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	108	
Bromofluorobenzene	100	
1,2-Dichloroethane-D4	106	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-077

SAMPLE ID: BE 25.0-25.5
SAMPLE DATE: 01/08/95 10:26:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/20/95		DATE	01/19/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BE 25.0-25.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/24/95
FIRST ANALYSIS: 01/23/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	103	
Bromofluorobenzene	101	
1,2-Dichloroethane-D4	102	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-077

SAMPLE ID: CE 15.0-15.5
SAMPLE DATE: 01/08/95 13:24:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/20/95		DATE	01/19/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CE 15.0-15.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/23/95
FIRST ANALYSIS: 01/23/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	105	
Bromofluorobenzene	105	
1,2-Dichloroethane-D4	113	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-077

SAMPLE ID: BN 1.75-2.0
SAMPLE DATE: 01/08/95 09:10:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/20/95		DATE	01/19/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BN 1.75-2.0
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/24/95
FIRST ANALYSIS: 01/23/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	105	
Bromofluorobenzene	98	
1,2-Dichloroethane-D4	97	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-077

SAMPLE ID: CE 1.75-2.0
SAMPLE DATE: 01/08/95 13:06:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/20/95		DATE	01/19/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CE 1.75-2.0
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/23/95
FIRST ANALYSIS: 01/23/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	110	
Bromofluorobenzene	109	
1,2-Dichloroethane-D4	109	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-077

SAMPLE ID: CW 20.0-20.5
SAMPLE DATE: 01/08/95 14:33:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/20/95		DATE	01/19/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CW 20.0-20.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/23/95
FIRST ANALYSIS: 01/23/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	109	
Bromofluorobenzene	103	
1,2-Dichloroethane-D4	108	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-077

SAMPLE ID: CE 20.0-20.5
SAMPLE DATE: 01/08/95 13:32:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/20/95		DATE	01/19/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CE 20.0-20.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/24/95
FIRST ANALYSIS: 01/24/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	107	
Bromofluorobenzene	104	
1,2-Dichloroethane-D4	110	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-077

SAMPLE ID: BW 10.0-10.5
SAMPLE DATE: 01/08/95 09:16:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/20/95		DATE	01/19/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BN 10.0-10.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/24/95
FIRST ANALYSIS: 01/24/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	108	
Bromofluorobenzene	101	
1,2-Dichloroethane-D4	112	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-077

SAMPLE ID: CW 15.0-15.5
SAMPLE DATE: 01/08/95 14:25:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/20/95		DATE	01/19/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CW 15.0-15.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/24/95
FIRST ANALYSIS: 01/24/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	108	
Bromofluorobenzene	103	
1,2-Dichloroethane-D4	106	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-077

SAMPLE ID: CN 3.75-4.0
SAMPLE DATE: 01/08/95 15:18:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/20/95		DATE	01/19/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-(

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CN 3.75-4.0
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/24/95
FIRST ANALYSIS: 01/24/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	99	
Bromofluorobenzene	96	
1,2-Dichloroethane-D4	105	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-077

SAMPLE ID: CN 25.5-26.0
SAMPLE DATE: 01/08/95 16:16:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/20/95		DATE	01/19/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-077

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CN 25.5-26.0
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/24/95
FIRST ANALYSIS: 01/24/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	104	
Bromofluorobenzene	95	
1,2-Dichloroethane-D4	94	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-077

SAMPLE ID: MATRIX SPIKE
SAMPLE DATE:
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/20/95		DATE	01/19/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: MATRIX SPIKE
SAMPLE DATE:
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/24/95
FIRST ANALYSIS: 01/24/95
DILUTION FACTOR: 5
UNITS: % REC

	Result
Vinyl chloride	112
1,1-Dichloroethylene	95
Chloroform	78
1,2-Dichloroethane	87
2-Butanone	68
Carbon tetrachloride	79
Trichloroethylene	84
Benzene	92
Tetrachloroethylene	79
Chlorobenzene	80

Surrogates	% Recovery
Toluene-D8	97
Bromofluorobenzene	94
1,2-Dichloroethane-D4	96

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-077

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **TCLP Volatiles from Leach.** TEST CODE **TCLP_V**

TCLP-Volatiles	Method 8240, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Purge and trap GC/MS analysis.

TEST NAME **Zero Headspace Extraction** TEST CODE **ZHE**

TCLP Preparation Zero Headspace	USEPA Method 1311-Federal Register Vol. 55, No. 126., June 29, 1990. Solid phase is extracted with a extraction fluid number one, equal to twenty times the weight of the solid phase. Extraction is performed in a zero-headspace apparatus meeting the specifications described in the method.

Method 8240 WATER

Quanterra QC Batch Summary

QC Batch ID	C10123
Preprep Method:	
Prep Method:	
Analysis Method:	8240
Batch Date:	1/23/95
Instrument ID	C
Batch (set) #:	1
Test Code:	8240

Batch QC Information

Matrix: WATER Analyst: MCS

Units: UG/L

QC Sample	Lab ID	Dil.Factor	Date	Time
Method Blank ID:	CBL23	1.00	1/23/95	1656
LCS ID:	CLS23	1.00	1/23/95	1753
LCSD ID:				
MS Sample ID:	B501077-01MS	5.00	1/23/95	1947
MSD Sample ID:	B501077-01MD	5.00	1/23/95	2011
Rep Sample ID:				

Sample Numbers Associated With Batch:

#	Lab Sample ID
1	B501077-01
2	B501077-2
3	B501077-3
4	B501077-4
5	B501077-5
6	B501077-6
7	B501077-7
8	B501077-8
9	B501077-9
10	B501077-10
11	B501077-11
12	B501077-12
13	B501077-DUP
14	
15	
16	
17	
18	
19	
20	

Data reported to: PQL

General Comments for Batch

Method 8240 - WATER

C10123

Analyte:	Accuracy												Precision				
	Blank Data		Laboratory Control Samples										Replicate Sample Data				
	Method Blank Result ug/L	Reporting Limit ug/L	LCS True Value ug/L	LCS Conc. Found ug/L	LCS % Rec.	Q	LCSD Conc. Found ug/L	LCSD % Rec.	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for LCS/ LCSD % Rec.	Q	Original Result for Replicate ug/L	Replicate Result ug/L	Rep. % RPD	Q	% RPD Cntrl. Limit
Chloromethane	ND	10.00																
Bromomethane	ND	10.00																
Vinyl Chloride	ND	10.00																
Chloroethane	ND	10.00																
Acetone	ND	100.00																
Methylene Chloride	ND	10.00																
Carbon Disulfide	ND	5.00																
1,1-Dichloroethene	ND	5.00	50.0	44.22	88					61	145					—		14
1,1-Dichloroethane	ND	5.00																
trans 1,2-Dichloroethene	ND	5.00																
cis 1,2-Dichloroethene	ND	5.00																
Chloroform	ND	5.00																
1,2-Dichloroethane	ND	5.00																
2-Butanone	ND	100.00																
1,1,1-Trichloroethane	ND	5.00																
Carbon Tetrachloride	ND	5.00																
Vinyl Acetate	ND	10.00																
Bromodichloromethane	ND	5.00																
1,2-Dichloropropane	ND	5.00																
trans 1,3-Dichloropropene	ND	5.00																
Trichloroethene	ND	5.00	50.0	43.00	86					71	120			—				14
Dibromochloromethane	ND	5.00																
1,1,2 Trichloroethane	ND	5.00								—								
Benzene	ND	5.00	50.0	45.60	91					76	127							11
2-Hexanone	ND	50.00																

Qualifiers(Q): * - Replicate % RPD was outside control limits

N - LCS recovery was outside method control limits

R - Percent RPD for LCS/LCSD recoveries was outside control limits

Comments:

Method 8240 - WATER

C10123

Analyte:	Accuracy													Precision				
	Blank Data			Laboratory Control Samples										Replicate Sample Data				
	Method Blank Result ug/L	Reporting Limit ug/L	LCS True Value ug/L	LCS Conc. Found ug/L	LCS % Rec.	Q	LCSD Conc. Found ug/L	LCSD % Rec.	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for LCS/ LCSD % Rec.	Q	Original Result for Replicate ug/L	Replicate Result ug/L	Rep. % RPD	Q	% RPD Cntrl. Limit
4-Methyl-2-Pentanone	ND	50.00																
Tetrachloroethene	ND	5.00																
1,1,2,2-Tetrachloroethane	ND	5.00																
Toluene	ND	5.00	50.0	49.64	99					76	125							13
Chlorobenzene	ND	5.00	50.0	54.50	109					75	130							13
Ethyl Benzene	ND	5.00																
Styrene	ND	5.00																
Xylenes, total	ND	5.00																
1,4-Dichlorobenzene	ND	5.00																
Toluene-d8	107				106					88	110							
Bromofluorobenzene	103				101					86	115							
1,2-Dichloroethane-d4	101				109					76	114							

Qualifiers(Q): * - Replicate % RPD was outside control limits

N - LCS recovery was outside method control limits

R - Percent RPD for LCS/LCSD recoveries was outside control limits

Comments:

Method 8240 - WATER

Quanterra QC Batch Summary

C10123

Analyte:	Accuracy										Precision			
	Matrix Spike/Matrix Spike Dup Batch QC Data													
	Unspiked Sample Result ug/L	MS Result ug/L	Spike Added ug/L	MS % Rec	Q	MSD Result ug/L	MSD % Rec	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for MS/MS % Rec.	% RPD for As Reps.	Q	% RPD Control Limits
1,1-Dichloroethene	0.00	222.00	250.0	89		217.00	87		61	145	2.3			14
Trichloroethene	0.00	266.00	250.0	106		227.00	91		71	120	15.8			14
Benzene	0.00	230.00	250.0	92		238.00	95		76	127	3.4			11
Toluene	0.00	255.00	250.0	102		234.00	94		76	125	8.6			13
Chlorobenzene	0.00	266.00	250.0	106		259.00	104		75	130	2.7			13
Toluene-d8				105			106		88	110	0.9			
Bromofluorobenzene				100			101		86	115	1.0			
1,2-Dichloroethane-d4				106			106		76	114	0.0			

Qualifiers(Q): H - Sample Concentration was greater than five times the spike level

N - Spike recovery was outside method control limits

R - Percent RPD for MS/MSD recoveries was outside control limits

D - Sample concentration was greater than five times the spike level

The RPD was calculated between the MS and MSD Results as relicates

Comments:

B501073

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 417300
Page 1 of 2

Project Name/No. [1] HWSF Evap Tank
Samples Shipment Date [7] 1-9-95
Bill to: [5]
Sample Team Members [2] Bloy, Giblin, Esquela
Lab Destination [8]
Profit Center No. [3]
Lab Contact [9] Chris Scherpelt
Project Manager [4] Giblin/Bloyd
Project Contact/Phone [12] 505-522-7229
Report to: [10]
Purchase Order No. [6]
Carrier/Waybill No. [13] Fed X 308 2395540
Required Report Date [11] 1-20-95

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Preservative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
CW 10.0-10.5	Soil	1418 1-8-95	Brass Teflon	6"x2.75"	None	TCLP TCE	Good 1°C	
CS 15.0-15.5		1108 1-8-95					Sp. Cures	
BE 1.0-1.5		1000 1-8-95					1/10/95	
BE 5.0-5.5		1004 1-8-95						
BN 1.0-1.5		0904 1-8-95						
CE 1.0-1.5		1302 1-8-95						
CW 3.0-3.5		1411 1-8-95						
CE 25.0-25.5		1341 1-8-95						

Special Instructions: [23]

Possible Hazard Identification: [24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☒ Archive (mos.)

Turnaround Time Required: [26]
Normal ☐ Rush ☐

QC Level: [27]
I. ☐ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by [28] (Signature/Affiliation) Kelly T. Bloyd	Date: 1-9-95 Time: 1041	1. Received by [28] (Signature/Affiliation) [illegible]	Date: 1/10/95 Time: 0906
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: [29]

Yellow: Field Copy

*See back of form for special instructions.

3501073

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 417300

Page 2 of 2

Project Name HWSF Evap Tank

Project No.

Samples Shipment Date 1/9/95

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
CW 5.0-5.5	Soil	1413 1-8-95	Brass Teflon	6"x2.75" Ø	None	TCLP-TCE	Good 1°C	
BN 20.0-20.5		0927 1-8-95					See RLPS	
CE 3.75-4.0		1309 1-8-95					Th 1/10/95	
CS 10.0-10.5		1303 1-8-95						
CE 5.5-6.0		1309 1-8-95						
BN 25.0-25.5		0932 1-8-95						
CE 3.0-3.5		1306 1-8-95						
BE 20.0-~~21.0~~ 20.5		1021 1-8-95						
CS 5.0-5.5		1051 1-8-95						
BN 4.0-4.5		0910 1-8-95						
BN 15.0-15.5		0921 1-8-95						
BN 5.0-5.5		0912 1-8-95						
BS 25.0-25.5		1126 1-8-95						
CS 20.0-20.5		1117 1-8-95						

White: To accompany samples

Yellow: Field copy

*See back of form for special instructions.

Quanterra
Environmental Services

CERTIFICATE OF ANALYSIS

ADVANCED SCIENCES INC
555 S TELSHOR
SUITE 310
LAS CRUCES NM 88001
KELLY BLOUGH

Date: 01/26/95

Work Order: B5-01-073

This is the Certificate of Analysis for the following samples:

Client Work ID: EVAP. TANK HWSF
Date Received: 01/10/95 09:06
Number of Samples: 23
Sample Type: SOIL

I. Introduction

Samples were labeled as follows:

SAMPLE IDENTIFICATION	LABORATORY #
CW 10.0-10.5	B5-01-073-01
CS 15.0-15.5	B5-01-073-02
BE 1.0-1.5	B5-01-073-03
BE 5.0-5.5	B5-01-073-04
BN 1.0-1.5	B5-01-073-05
CE 1.0-1.5	B5-01-073-06
CW 3.0-3.5	B5-01-073-07
CE 25.0-25.5	B5-01-073-08
CW 5.0-5.5	B5-01-073-09
BN 20.0-20.5	B5-01-073-10
CE 3.75-4.0	B5-01-073-11
CS 10.0-10.5	B5-01-073-12
CE 5.5-6.0	B5-01-073-13

Reviewed and Approved:

Jon Bartell
Laboratory Director

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

Samples, continued from above:

SAMPLE IDENTIFICATION	LABORATORY #
BN 25.0-25.5	B5-01-073-14
CE 3.0-3.5	B5-01-073-15
BE 20.0-20.5	B5-01-073-16
CS 5.0-5.5	B5-01-073-17
BN 4.0-4.5	B5-01-073-18
BN 15.0-15.5	B5-01-073-19
BN 5.0-5.5	B5-01-073-20
BS 25.0-25.5	B5-01-073-21
CS 20.0-20.5	B5-01-073-22
MATRIX SPIKE	B5-01-073-23

II. QA/QC

The results presented in this report meet the statement of work requirements in accordance with Quality Control and Quality Assurance protocol except as noted in Section IV or in an optional sample narrative at the end of Section III.

In the presented analytical data, 'ND' or '<' indicates that the compound is not detected at the specified limit.

III. Analytical Data

The following page(s) supply results for requested analyses performed on the samples listed above.

The test results relate to tested items only. Quanterra reserves the right to control report production except in whole.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-(

SAMPLE ID: CW 10.0-10.5
SAMPLE DATE: 01/08/95 14:18:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/10/95		DATE	01/09/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CW 10.0-10.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
FIRST ANALYSIS: 01/18/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	95	
Bromofluorobenzene	91	
1,2-Dichloroethane-D4	102	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

SAMPLE ID: CS 15.0-15.5
SAMPLE DATE: 01/08/95 11:08:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/10/95		DATE	01/09/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CS 15.0-15.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
FIRST ANALYSIS: 01/18/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	95	
Bromofluorobenzene	93	
1,2-Dichloroethane-D4	99	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

SAMPLE ID: BE 1.0-1.5
SAMPLE DATE: 01/08/95 10:00:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/10/95		DATE	01/10/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BE 1.0-1.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
FIRST ANALYSIS: 01/18/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	94	
Bromofluorobenzene	92	
1,2-Dichloroethane-D4	97	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-C

SAMPLE ID: BE 5.0-5.5
SAMPLE DATE: 01/08/95 10:04:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/10/95		DATE	01/10/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BE 5.0-5.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
FIRST ANALYSIS: 01/18/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	97	
Bromofluorobenzene	91	
1,2-Dichloroethane-D4	101	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

SAMPLE ID: BN 1.0-1.5
SAMPLE DATE: 01/08/95 09:04:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/11/95		DATE	01/10/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BN 1.0-1.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
FIRST ANALYSIS: 01/18/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	94	
Bromofluorobenzene	92	
1,2-Dichloroethane-D4	101	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-(

SAMPLE ID: CE 1.0-1.5
SAMPLE DATE: 01/08/95 13:02:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/11/95		DATE	01/10/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CE 1.0-1.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
FIRST ANALYSIS: 01/18/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	96	
Bromofluorobenzene	90	
1,2-Dichloroethane-D4	99	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

SAMPLE ID: CW 3.0-3.5
SAMPLE DATE: 01/08/95 14:11:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/11/95		DATE	01/10/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CW 3.0-3.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
FIRST ANALYSIS: 01/18/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	94	
Bromofluorobenzene	92	
1,2-Dichloroethane-D4	98	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-(

SAMPLE ID: CE 25.0-25.5
SAMPLE DATE: 01/08/95 13:41:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/11/95		DATE	01/10/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CE 25.0-25.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
FIRST ANALYSIS: 01/18/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	92	
Bromofluorobenzene	92	
1,2-Dichloroethane-D4	99	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

SAMPLE ID: CW 5.0-5.5
SAMPLE DATE: 01/08/95 14:13:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/11/95		DATE	01/10/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CW 5.0-5.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
FIRST ANALYSIS: 01/18/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	96	
Bromofluorobenzene	90	
1,2-Dichloroethane-D4	101	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

SAMPLE ID: BN 20.0-20.5
SAMPLE DATE: 01/08/95 09:27:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/11/95		DATE	01/10/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BN 20.0-20.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
FIRST ANALYSIS: 01/18/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	94	
Bromofluorobenzene	90	
1,2-Dichloroethane-D4	99	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

SAMPLE ID: CE 3.75-4.0
SAMPLE DATE: 01/08/95 13:09:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/11/95		DATE	01/10/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CE 3.75-4.0
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
FIRST ANALYSIS: 01/18/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	95	
Bromofluorobenzene	89	
1,2-Dichloroethane-D4	100	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

SAMPLE ID: CS 10.0-10.5
SAMPLE DATE: 01/08/95 13:03:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/11/95		DATE	01/10/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CS 10.0-10.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
FIRST ANALYSIS: 01/18/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	94	
Bromofluorobenzene	87	
1,2-Dichloroethane-D4	98	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-(

SAMPLE ID: CE 5.5-6.0
SAMPLE DATE: 01/08/95 13:09:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/11/95		DATE	01/10/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CE 5.5-6.0
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
FIRST ANALYSIS: 01/18/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	95	
Bromofluorobenzene	88	
1,2-Dichloroethane-D4	96	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-(

SAMPLE ID: BN 25.0-25.5
SAMPLE DATE: 01/08/95 09:32:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/11/95		DATE	01/10/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BN 25.0-25.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
FIRST ANALYSIS: 01/18/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	93	
Bromofluorobenzene	89	
1,2-Dichloroethane-D4	97	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

SAMPLE ID: CE 3.0-3.5
SAMPLE DATE: 01/08/95 13:06:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/11/95		DATE	01/10/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CE 3.0-3.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
FIRST ANALYSIS: 01/18/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	93	
Bromofluorobenzene	89	
1,2-Dichloroethane-D4	95	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

SAMPLE ID: BE 20.0-20.5
SAMPLE DATE: 01/08/95 10:21:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/11/95		DATE	01/10/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BE 20.0-20.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
FIRST ANALYSIS: 01/18/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	93	
Bromofluorobenzene	88	
1,2-Dichloroethane-D4	95	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

SAMPLE ID: CS 5.0-5.5
SAMPLE DATE: 01/08/95 10:51:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/12/95		DATE	01/10/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CS 5.0-5.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
FIRST ANALYSIS: 01/18/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	94	
Bromofluorobenzene	91	
1,2-Dichloroethane-D4	97	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

SAMPLE ID: BN 4.0-4.5
SAMPLE DATE: 01/08/95 09:10:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/12/95		DATE	01/10/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BN 4.0-4.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
FIRST ANALYSIS: 01/18/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	94	
Bromofluorobenzene	87	
1,2-Dichloroethane-D4	96	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

SAMPLE ID: BN 15.0-15.5
SAMPLE DATE: 01/08/95 09:21:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/12/95		DATE	01/10/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BN 15.0-15.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/20/95
FIRST ANALYSIS: 01/18/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	99	
Bromofluorobenzene	87	
1,2-Dichloroethane-D4	104	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-C

SAMPLE ID: BN 5.0-5.5
SAMPLE DATE: 01/08/95 09:12:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/12/95		DATE	01/10/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BN 5.0-5.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
FIRST ANALYSIS: 01/18/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	93	
Bromofluorobenzene	88	
1,2-Dichloroethane-D4	95	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

SAMPLE ID: BS 25.0-25.5
SAMPLE DATE: 01/08/95 11:26:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/12/95		DATE	01/10/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BS 25.0-25.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
FIRST ANALYSIS: 01/18/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	94	
Bromofluorobenzene	88	
1,2-Dichloroethane-D4	95	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-(

SAMPLE ID: CS 20.0-20.5
SAMPLE DATE: 01/08/95 11:17:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/12/95		DATE	01/10/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CS 20.0-20.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
FIRST ANALYSIS: 01/18/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	95	
Bromofluorobenzene	91	
1,2-Dichloroethane-D4	100	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

SAMPLE ID: MATRIX SPIKE
SAMPLE DATE:
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/12/95		DATE	01/10/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-073

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: MATRIX SPIKE
SAMPLE DATE:
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/18/95
FIRST ANALYSIS: 01/18/95
DILUTION FACTOR: 5
UNITS: % REC

	Result
Vinyl chloride	112
1,1-Dichloroethylene	97
Chloroform	96
1,2-Dichloroethane	94
2-Butanone	93
Carbon tetrachloride	95
Trichloroethylene	92
Benzene	97
Tetrachloroethylene	86
Chlorobenzene	90

Surrogates	% Recovery
Toluene-D8	94
Bromofluorobenzene	91
1,2-Dichloroethane-D4	103

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **TCLP Volatiles from Leach.** TEST CODE **TCLP_V**

TCLP-Volatiles	Method 8240, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Purge and trap GC/MS analysis.

TEST NAME **Zero Headspace Extraction** TEST CODE **ZHE**

TCLP Preparation Zero Headspace	USEPA Method 1311-Federal Register Vol. 55, No. 126., June 29, 1990. Solid phase is extracted with a extraction fluid number one, equal to twenty times the weight of the solid phase. Extraction is performed in a zero-headspace apparatus meeting the specifications described in the method.

Method 8240 WATER

Quanterra QC Batch Summary

QC Batch ID	A20117
Preprep Method:	
Prep Method:	
Analysis Method:	8240
Batch Date:	1/17/95
Instrument ID	A
Batch (set) #:	2
Test Code:	8240

Batch QC Information

Matrix: WATER Analyst: JMS

Units: UG/L

QC Sample	Lab ID	Dil.Factor	Date	Time
Method Blank ID:	ABL17	1.00	1/17/95	2347
LCS ID:	ABT17	1.00	1/18/95	0048
LCSD ID:				
MS Sample ID:	B501073-01MS	1.00	1/18/95	0314
MSD Sample ID:	B501073-01MSD	1.00	1/18/95	0344
Rep Sample ID:				

Sample Numbers Associated With Batch:

#	Lab Sample ID
1	B501073-BLK
2	B501049-BLK
3	B501073-01
4	B501073-02
5	B501073-03
6	B501073-04
7	B501073-05
8	B501073-06
9	B501073-07
10	B501073-08
11	B501073-09
12	B501073-10
13	B501073-11
14	B501073-22
15	B501073-22D
16	B501073-23
17	
18	
19	
20	

Data reported to: PQL

General Comments for Batch

Method 8240 - WATER

A20117

Analyte:	Accuracy											Precision						
	Blank Data		Laboratory Control Samples											Replicate Sample Data				
	Method Blank Result ug/L	Reporting Limit ug/L	LCS True Value ug/L	LCS Conc. Found ug/L	LCS % Rec.	Q	LCSD Conc. Found ug/L	LCSD % Rec.	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for LCS/ LCSD % Rec.	Q	Original Result for Replicate ug/L	Replicate Result ug/L	Rep. % RPD	Q	% RPD Cntrl. Limit
Chloromethane	ND	10.00																
Bromomethane	ND	10.00																
Vinyl Chloride	ND	10.00																
Chloroethane	ND	10.00																
Acetone	ND	100.00																
Methylene Chloride	ND	10.00																
Carbon Disulfide	ND	5.00																
1,1-Dichloroethene	ND	5.00	50.0	42.99	86					61	145							14
1,1-Dichloroethane	ND	5.00																
trans 1,2-Dichloroethene	ND	5.00																
cis 1,2-Dichloroethene	ND	5.00																
Chloroform	ND	5.00																
1,2-Dichloroethane	ND	5.00																
2-Butanone	ND	100.00																
1,1,1-Trichloroethane	ND	5.00																
Carbon Tetrachloride	ND	5.00																
Vinyl Acetate	ND	10.00																
Bromodichloromethane	ND	5.00																
1,2-Dichloropropane	ND	5.00																
trans 1,3-Dichloropropene	ND	5.00																
Trichloroethene	ND	5.00	50.0	45.80	92					71	120							14
Dibromochloromethane	ND	5.00																
1,1,2 Trichloroethane	ND	5.00																
Benzene	ND	5.00	50.0	48.04	96					76	127							11
2-Hexanone	ND	50.00																

Qualifiers(Q): * - Replicate % RPD was outside control limits

N - LCS recovery was outside method control limits

R - Percent RPD for LCS/LCSD recoveries was outside control limits

Comments:

A20117

Analyte:	Accuracy													Precision				
	Blank Data		Laboratory Control Samples											Replicate Sample Data				
	Method Blank Result ug/L	Reporting Limit ug/L	LCS True Value ug/L	LCS Conc. Found ug/L	LCS % Rec.	Q	LCSD Conc. Found ug/L	LCSD % Rec.	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for LCS/ LCSD % Rec.	Q	Original Result for Replicate ug/L	Replicate Result ug/L	Rep % RPD	Q	% RPD Cntrl. Limit
4-Methyl-2-Pentanone	ND	50.00																
Tetrachloroethene	ND	5.00																
1,1,2,2-Tetrachloroethane	ND	5.00																
Toluene	ND	5.00	50.0	45.62	91					76	125							13
Chlorobenzene	ND	5.00	50.0	47.15	94					75	130							13
Ethyl Benzene	ND	5.00																
Styrene	ND	5.00																
Xylenes, total	ND	5.00																
1,4-Dichlorobenzene	ND	5.00																
d8-Toluene	93				95					88	110							
Bromofluorobenzene	93				90					86	115							
1,2-Dichloroethane-d4	106				101					76	114							

Qualifiers(Q): * - Replicate % RPD was outside control limits

N - LCS recovery was outside method control limits

R - Percent RPD for LCS/LCSD recoveries was outside control limits

Comments:

Method 8240 - WATER

Quanterra QC Batch Summary

A20117

Analyte:	Accuracy										Precision			
	Matrix Spike/Matrix Spike Dup Batch QC Data													
	Unspiked Sample Result ug/L	MS Result ug/L	Spike Added ug/L	MS % Rec	Q	MSD Result ug/L	MSD % Rec	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for MS/MS % Rec.	% RPD for As Reps.	Q	% RPD Control Limits
1,1-Dichloroethene	0.0	231	250	92		236	94		61	145	2.4			14
Trichloroethene	0.0	236	250	94		247	99		71	120	4.6			14
Benzene	0.0	243	250	97		253	101		76	127	3.9			11
Toluene	0.0	234	250	94		248	99		76	125	5.9			13
Chlorobenzene	0.0	243	250	97		251	101		75	130	3.3			13
d8-Toluene				94			94		88	110	0.0			
Bromofluorobenzene				90			91		86	115	1.1			
1,2-Dichloroethane-d4				100			98		76	114	2.0			

Qualifiers(Q): H - Sample Concentration was greater than five times the spike level

N - Spike recovery was outside method control limits

R - Percent RPD for MS/MSD recoveries was outside control limits

D - Sample concentration was greater than five times the spike level

The RPD was calculated between the MS and MSD Results as relicates

Comments:

Method 8240 WATER

Quanterra QC Batch Summary

QC Batch ID	A10118
Preprep Method:	
Prep Method:	
Analysis Method:	8240
Batch Date:	1/18/95
Instrument ID	A
Batch (set) #:	1
Test Code:	8240

Batch QC Information

Matrix: WATER Analyst: SRB

Units: UG/L

QC Sample	Lab ID	Dil.Factor	Date	Time
Method Blank ID:	ABK18	1.00	1/18/95	1134
LCS ID:	ABS18	1.00	1/18/95	1239
LCSD ID:				
MS Sample ID:	B501073-14MS	1.00	1/18/95	1526
MSD Sample ID:	B501073-14MSD	1.00	1/18/95	1556
Rep Sample ID:				

Sample Numbers Associated With Batch:

#	Lab Sample ID
1	B501073-12
2	B501073-13
3	B501073-14
4	B501073-15
5	B501073-16
6	B501073-17
7	B501073-18
8	B501073-20
9	B501073-21
10	B501074-BLK
11	B501074-01
12	B501074-02
13	B501074-03
14	B501074-04
15	B501074-05
16	B501074-06
17	
18	
19	
20	

Data reported to: PQL

General Comments for Batch

BASED ON LCS AND MS

MSD DID NOT HAVE ISTD /SS

A10118

Analyte:	Accuracy													Precision				
	Blank Data		Laboratory Control Samples											Replicate Sample Data				
	Method Blank Result ug/L	Reporting Limit ug/L	LCS True Value ug/L	LCS Conc. Found ug/L	LCS % Rec.	Q	LCSD Conc. Found ug/L	LCSD % Rec.	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for LCS/ LCSD % Rec.	Q	Original Result for Replicate ug/L	Replicate Result ug/L	Rep % RPD	Q	% RPD Cntrl. Limit
Chloromethane	ND	10.00																
Bromomethane	ND	10.00																
Vinyl Chloride	ND	10.00																
Chloroethane	ND	10.00																
Acetone	ND	100.00																
Methylene Chloride	ND	10.00																
Carbon Disulfide	ND	5.00																
1,1-Dichloroethene	ND	5.00	50.0	42.33	85					61	145							14
1,1-Dichloroethane	ND	5.00																
trans 1,2-Dichloroethene	ND	5.00																
cis 1,2-Dichloroethene	ND	5.00																
Chloroform	ND	5.00																
1,2-Dichloroethane	ND	5.00																
2-Butanone	ND	100.00																
1,1,1-Trichloroethane	ND	5.00																
Carbon Tetrachloride	ND	5.00																
Vinyl Acetate	ND	10.00																
Bromodichloromethane	ND	5.00																
1,2-Dichloropropane	ND	5.00																
trans 1,3-Dichloropropene	ND	5.00																
Trichloroethene	ND	5.00	50.0	45.09	90					71	120							14
Dibromochloromethane	ND	5.00																
1,1,2 Trichloroethane	ND	5.00																
Benzene	ND	5.00	50.0	45.28	91					76	127							11
2-Hexanone	ND	50.00																

Qualifiers(Q): * - Replicate % RPD was outside control limits

N - LCS recovery was outside method control limits

R - Percent RPD for LCS/LCSD recoveries was outside control limits

Comments:

Method 8240 - WATER

A10118

Analyte:	Accuracy											Precision						
	Blank Data		Laboratory Control Samples											Replicate Sample Data				
	Method Blank Result ug/L	Reporting Limit ug/L	LCS True Value ug/L	LCS Conc. Found ug/L	LCS % Rec.	Q	LCSD Conc. Found ug/L	LCSD % Rec.	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for LCS/ LCSD % Rec.	Q	Original Result for Replicate ug/L	Replicate Result ug/L	Rep. % RPD	Q	% RPD Cntrl. Limit
4-Methyl-2-Pentanone	ND	50.00																
Tetrachloroethene	ND	5.00																
1,1,2,2-Tetrachloroethane	ND	5.00																
Toluene	ND	5.00	50.0	44.38	89					76	125							13
Chlorobenzene	ND	5.00	50.0	44.61	89					75	130							13
Ethyl Benzene	ND	5.00																
Styrene	ND	5.00																
Xylenes, total	ND	5.00																
1,4-Dichlorobenzene	ND	5.00																
d8-Toluene	94				95					88	110							
Bromofluorobenzene	89				89					86	115							
1,2-Dichloroethane-d4	101				99					76	114							

Qualifiers(Q): * - Replicate % RPD was outside control limits

N - LCS recovery was outside method control limits

R - Percent RPD for LCS/LCSD recoveries was outside control limits

Comments:

Method 8240 - WATER

Quanterra QC Batch Summary

A10117

Analyte:	Accuracy										Precision			
	Matrix Spike/Matrix Spike Dup Batch QC Data													
	Unspiked Sample Result ug/L	MS Result ug/L	Spike Added ug/L	MS % Rec	Q	MSD Result ug/L	MSD % Rec	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for MS/MS % Rec.	% RPD for As Reps.	Q	% RPD Control Limits
1,1-Dichloroethene	0.0	186	250	75		0	0		61	145	N/A 200.0			14
Trichloroethene	0.0	205	250	82		0	0		71	120	200.0			14
Benzene	0.0	209	250	84		0	0		76	127	200.0			11
Toluene	0.0	203	250	81		0	0		76	125	200.0			13
Chlorobenzene	0.0	212	250	85		0	0		75	130	200.0			13
d8-Toluene				96			0		88	110	200.0			
Bromofluorobenzene				91			0		86	115	200.0			
1,2-Dichloroethane-d4				97			0		76	114	200.0			

% RPD ms to LCS

10
8
7
8
4

Qualifiers(Q):

H - Sample Concentration was greater than five times the spike level

N - Spike recovery was outside method control limits

R - Percent RPD for MS/MSD recoveries was outside control limits

D - Sample concentration was greater than five times the spike level

The RPD was calculated between the MS and MSD Results as relicates

Comments:

MSD DID not

IMVO ISTD /SS

B501075

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 407005
Page 1 of 3

Project Name/No. [1] EVAP. TANK H.W.S.F.
Sample Team Members [2] Blough, Esquedda, Giblin
Profit Center No. [3]
Project Manager [4] Blough, Giblin
Purchase Order No. [6]
Required Report Date [11] 1.20.95

Samples Shipment Date [7] 1-9-95
Lab Destination [8]
Lab Contact [9] Christopher Schepcoff
Project Contact/Phone [12] (505) 522-7229
Carrier/Waybill No. [13] Fedex 3082301556 2

Bill to: [5]
Report to: [10]

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Pre-servative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
AS-20.0-20.5	Soil	1-7-95 08:25	Teflon Brass	6" x 2"	None	TCLP - TCE	8:25 1/10	
AS-25.0-25.5	↓	1-7-95 08:30	↓	↓	↓	↓	1/10/95 027	
AN-1.0-1.5	↓	1-7-95 09:00	↓	↓	↓	↓	↓	
AN-2.5-2.75	↓	1-7-95 09:05	↓	↓	↓	↓	↓	
AN-3.0-3.5	↓	1-7-95 09:10	↓	↓	↓	↓	↓	
AN-3.75-4.0	↓	1-7-95 09:15	↓	↓	↓	↓	↓	
AN-5.25-5.5	↓	1-7-95 09:20	↓	↓	↓	↓	↓	
AN-10.5-11.0	↓	1-7-95 09:23	↓	↓	↓	↓	↓	

Special Instructions: [23]

Possible Hazard Identification: [24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☐ Archive (mos.)

Turnaround Time Required: [26]
Normal ☐ Rush ☐

QC Level: [27]
I. ☐ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by [28] (Signature/Affiliation) Kelly T. Blough	Date: 1-9-95 Time: 1046	1. Received by [28] (Signature/Affiliation) Jerome Roth CI	Date: 1/10/95 Time: 0806
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: [29]

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

B501075

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 407005
Page 2 of 3

Project Name EVAP. TANK HWSF

Project No.

Samples Shipment Date 1-9-95

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
AN-15.0-15.5	Soil	1-7-95 09:25	TEFION BRASS	6" x 2"	NONE	TCLP-TCE	1°C 1/10/95	
AN-20.0-20.5		1-7-95 09:27					signed	
AN-25.0-25.5		1-7-95 09:30						
AE-1.0-1.5		1-7-95 09:52						
AE-1.75-2.0		1-7-95 09:54						
AE-3.0-3.5		1-7-95 09:57						
AE-3.75-4.0		1-7-95 09:59						
AE-5.5-5.6		1-7-95 10:01						
AE-10.0-10.5		1-7-95 10:05						
AE-15.0-15.5		1-7-95 10:07						
AE-20.0-20.5		1-7-95 10:11						
AE-25.5-26.0		1-7-95 10:16						
BW-1.0-1.5		1-7-95 12:15						
BW-1.75-2.0		1-7-95 12:17						
BW-3.0-3.5		1-7-95 12:21						
BW-3.75-4.0		1-7-95 12:25						
BW-5.5-6.0		1-7-95 12:29						
BW-10.0-10.5		1-7-95 12:33						
BW-15.5[illegible].0		1-7-95 12:36						
BW-20.0-10.5		1-7-95						

Yellow: Field copy

*See back of form for special instructions.

B501075

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 407005

Page 3 of 3

Project Name EVAP. TANK HWSF

Project No.

Samples Shipment Date 1-9-95

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
BW-250-25.5	Soil	1-7-95 12:49	TEFLON BRASS	6" x 2"	NONE	TCLP — TCE	good 10C	
BS-1.0-1.5		1-7-95 13:19					1/10/95	
BS-1.75-2.0		1-7-95 13:22						
BS-3.0-3.5		1-7-95 13:29						
BS-3.75-4.0		1-7-95 13:26						
BS-5.5-6.0		1-7-95 13:28						
BS-10.0-10.5		1-7-95 13:33						
BS-15.0-15.5		1-7-95 13:38						
BS-20.0-20.5		1-7-95 13:48						
BS-25.0-25.5		1-7-95 13:57						

White: To accompany samples

Yellow: Field copy

*See back of form for special instructions.

Quanterra
Environmental Services

CERTIFICATE OF ANALYSIS

ADVANCED SCIENCES INC
555 S TELSHOR
SUITE 310
LAS CRUCES NM 88001
KELLY BLOUGH

Date: 01/26/95

Work Order: B5-01-075

This is the Certificate of Analysis for the following samples:

Client Work ID: EVAP. TANK HWSF
Date Received: 01/10/95 09:06
Number of Samples: 20
Sample Type: SOIL

I. Introduction

Samples were labeled as follows:

SAMPLE IDENTIFICATION	LABORATORY #
AE-25.5-26.0	B5-01-075-01
BW-1.0-1.5	B5-01-075-02
BW-1.75-2.0	B5-01-075-03
BW-3.0-3.5	B5-01-075-04
BW-3.75-4.0	B5-01-075-05
BW-5.5-6.0	B5-01-075-06
BW-10.0-10.5	B5-01-075-07
BW-15.5-16.0	B5-01-075-08
BW-20.0-20.5	B5-01-075-09
BW-25.0-25.5	B5-01-075-10
BS-1.0-1.5	B5-01-075-11
BS-1.75-2.0	B5-01-075-12
BS-3.0-3.5	B5-01-075-13

Reviewed and Approved:

Jon Bartell
Laboratory Director

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-075

Samples, continued from above:

SAMPLE IDENTIFICATION	LABORATORY #
BS-3.75-4.0	B5-01-075-14
BS-5.5-6.0	B5-01-075-15
BS-10.0-10.5	B5-01-075-16
BS-15.0-15.5	B5-01-075-17
BS-20.0-20.5	B5-01-075-18
BS-25.0-25.5	B5-01-075-19
MATRIX SPIKE	B5-01-075-20

II. QA/QC

The results presented in this report meet the statement of work requirements in accordance with Quality Control and Quality Assurance protocol except as noted in Section IV or in an optional sample narrative at the end of Section III.

In the presented analytical data, 'ND' or '<' indicates that the compound is not detected at the specified limit.

III. Analytical Data

The following page(s) supply results for requested analyses performed on the samples listed above.

The test results relate to tested items only. Quanterra reserves the right to control report production except in whole.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

SAMPLE ID: AE-25.5-26.0
SAMPLE DATE: 01/07/95 10:16:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/17/95		DATE	01/17/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-075

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: AE-25.5-26.0
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/19/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	106	
Bromofluorobenzene	110	
1,2-Dichloroethane-D4	106	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-(

SAMPLE ID: BW-1.0-1.5
SAMPLE DATE: 01/07/95 12:15:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/17/95		DATE	01/17/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-075

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BW-1.0-1.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/19/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	104	
Bromofluorobenzene	108	
1,2-Dichloroethane-D4	112	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

SAMPLE ID: BW-1.75-2.0
SAMPLE DATE: 01/07/95 12:17:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/17/95		DATE	01/17/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-075

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BW-1.75-2.0
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/20/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	104	
Bromofluorobenzene	94	
1,2-Dichloroethane-D4	103	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

SAMPLE ID: BW-3.0-3.5
SAMPLE DATE: 01/07/95 12:21:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/17/95		DATE	01/17/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-075

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BW-3.0-3.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/19/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	108	
Bromofluorobenzene	115	
1,2-Dichloroethane-D4	106	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

SAMPLE ID: BW-3.75-4.0
SAMPLE DATE: 01/07/95 12:25:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/17/95		DATE	01/17/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-075

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BW-3.75-4.0
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/19/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	105	
Bromofluorobenzene	106	
1,2-Dichloroethane-D4	108	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-07

SAMPLE ID: BW-5.5-6.0
SAMPLE DATE: 01/07/95 12:29:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/17/95		DATE	01/17/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-075

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BW-5.5-6.0
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/20/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	102	
Bromofluorobenzene	93	
1,2-Dichloroethane-D4	104	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

SAMPLE ID: BW-10.0-10.5
SAMPLE DATE: 01/07/95 12:33:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/17/95		DATE	01/17/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-075

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BW-10.0-10.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/20/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	101	
Bromofluorobenzene	97	
1,2-Dichloroethane-D4	105	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

SAMPLE ID: BW-15.5-16.0
SAMPLE DATE: 01/07/95 12:36:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/17/95		DATE	01/17/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-075

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BW-15.5-16.0
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/20/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	101	
Bromofluorobenzene	88	
1,2-Dichloroethane-D4	98	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-L

SAMPLE ID: BW-20.0-20.5
SAMPLE DATE: 01/07/95 12:41:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/17/95		DATE	01/17/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-075

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BW-20.0-20.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/20/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	101	
Bromofluorobenzene	93	
1,2-Dichloroethane-D4	104	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

SAMPLE ID: BW-25.0-25.5
SAMPLE DATE: 01/07/95 12:49:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/17/95		DATE	01/17/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-075

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BW-25.0-25.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/20/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	101	
Bromofluorobenzene	95	
1,2-Dichloroethane-D4	106	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

SAMPLE ID: BS-1.0-1.5
SAMPLE DATE: 01/07/95 13:19:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/17/95		DATE	01/17/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-075

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BS-1.0-1.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/20/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	98	
Bromofluorobenzene	98	
1,2-Dichloroethane-D4	101	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-07

SAMPLE ID: BS-1.75-2.0
SAMPLE DATE: 01/07/95 13:22:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/17/95		DATE	01/17/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-075

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BS-1.75-2.0
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/20/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	101	
Bromofluorobenzene	93	
1,2-Dichloroethane-D4	102	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01

SAMPLE ID: BS-3.0-3.5
SAMPLE DATE: 01/07/95 13:24:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/17/95		DATE	01/17/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-075

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BS-3.0-3.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/20/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	102	
Bromofluorobenzene	89	
1,2-Dichloroethane-D4	104	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

SAMPLE ID: BS-3.75-4.0
SAMPLE DATE: 01/07/95 13:26:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/18/95		DATE	01/17/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-075

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BS-3.75-4.0
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/20/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	101	
Bromofluorobenzene	91	
1,2-Dichloroethane-D4	105	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-[illegible]

SAMPLE ID: BS-5.5-6.0
SAMPLE DATE: 01/07/95 13:28:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/18/95		DATE	01/17/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-075

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BS-5.5-6.0
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/20/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	103	
Bromofluorobenzene	92	
1,2-Dichloroethane-D4	97	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-[illegible]

SAMPLE ID: BS-10.0-10.5
SAMPLE DATE: 01/07/95 13:33:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/18/95		DATE	01/17/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-075

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BS-10.0-10.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/20/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	96	
Bromofluorobenzene	92	
1,2-Dichloroethane-D4	106	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

SAMPLE ID: BS-15.0-15.5
SAMPLE DATE: 01/07/95 13:38:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/18/95		DATE	01/17/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-075

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BS-15.0-15.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/20/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	106	
Bromofluorobenzene	92	
1,2-Dichloroethane-D4	111	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-[illegible]

SAMPLE ID: BS-20.0-20.5
SAMPLE DATE: 01/07/95 13:48:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/18/95		DATE	01/17/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-075

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BS-20.0-20.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/20/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	104	
Bromofluorobenzene	97	
1,2-Dichloroethane-D4	104	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01

SAMPLE ID: BS-25.0-25.5
SAMPLE DATE: 01/07/95 13:57:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/18/95		DATE	01/17/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-075

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BS-25.0-25.5
SAMPLE DATE: 01/07/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/20/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	97	
Bromofluorobenzene	94	
1,2-Dichloroethane-D4	103	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0[illegible]

SAMPLE ID: MATRIX SPIKE
SAMPLE DATE:
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/18/95		DATE	01/17/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-075

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: MATRIX SPIKE
SAMPLE DATE:
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/20/95
DILUTION FACTOR: 5
UNITS: % REC

	Result
Vinyl chloride	111
1,1-Dichloroethylene	85
Chloroform	80
1,2-Dichloroethane	84
2-Butanone	71
Carbon tetrachloride	75
Trichloroethylene	82
Benzene	86
Tetrachloroethylene	79
Chlorobenzene	85

Surrogates	% Recovery
Toluene-D8	98
Bromofluorobenzene	87
1,2-Dichloroethane-D4	102

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **TCLP Volatiles from Leach.** TEST CODE **TCLP_V**

TCLP-Volatiles	Method 8240, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Purge and trap GC/MS analysis.

TEST NAME **Zero Headspace Extraction** TEST CODE **ZHE**

TCLP Preparation Zero Headspace	USEPA Method 1311-Federal Register Vol. 55, No. 126., June 29, 1990. Solid phase is extracted with a extraction fluid number one, equal to twenty times the weight of the solid phase. Extraction is performed in a zero-headspace apparatus meeting the specifications described in the method.

Method 8240 WATER

Quanterra QC Batch Summary

QC Batch ID	C10120
Preprep Method:	
Prep Method:	
Analysis Method:	8240
Batch Date:	1/20/95
Instrument ID	C
Batch (set) #:	1
Test Code:	8240

Batch QC Information

Matrix: WATER Analyst: SRB

Units: UG/L

QC Sample	Lab ID	DilFactor	Date	Time
Method Blank ID:	CBK20	1.00	1/20/95	0817
LCS ID:	CBS20	1.00	1/20/95	0915
LCSD ID:				
MS Sample ID:	B501075-11MS	1.00	1/20/95	1403
MSD Sample ID:	B501075-11MSD	1.00	1/20/95	1431
Rep Sample ID:				

Sample Numbers Associated With Batch:

#	Lab Sample ID
1	B501075-11
2	B501075-12
3	B501075-13
4	B501075-14
5	B501075-15
6	B501075-16
7	B501075-17
8	B501075-18
9	B501075-19
10	B501075-20
11	
12	
13	
14	
15	
16	
17	
18	
19	

Data reported to: PQL

General Comments for Batch

Method 8240 - WATER

C10120

Analyte:	Accuracy											Precision					
	Blank Data		Laboratory Control Samples											Replicate Sample Data				
	Method Blank Result ug/L	Reporting Limit ug/L	LCS True Value ug/L	LCS Conc. Found ug/L	LCS % Rec.	Q	LCSD Conc. Found ug/L	LCSD % Rec.	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for LCS/ LCSD % Rec.	Q	Original Result for Replicate ug/L	Replicate Result ug/L	Rep. % RPD	Q	% RPD Cntrl. Limit
Chloromethane	ND	10.00																
Bromomethane	ND	10.00																
Vinyl Chloride	ND	10.00																
Chloroethane	ND	10.00																
Acetone	ND	100.00																
Methylene Chloride	ND	10.00																
Carbon Disulfide	ND	5.00																
1,1-Dichloroethene	ND	5.00	50.0	38.79	78					61	145							14
1,1-Dichloroethane	ND	5.00																
trans 1,2-Dichloroethene	ND	5.00																
cis 1,2-Dichloroethene	ND	5.00																
Chloroform	ND	5.00																
1,2-Dichloroethane	ND	5.00																
2-Butanone	ND	100.00																
1,1,1-Trichloroethane	ND	5.00																
Carbon Tetrachloride	ND	5.00																
Vinyl Acetate	ND	10.00																
Bromodichloromethane	ND	5.00																
1,2-Dichloropropane	ND	5.00																
trans 1,3-Dichloropropene	ND	5.00																
Trichloroethene	ND	5.00	50.0	44.52	89					71	120							14
Dibromochloromethane	ND	5.00																
1,1,2 Trichloroethane	ND	5.00																
Benzene	ND	5.00	50.0	44.48	89					76	127							11
2-Hexanone	ND	50.00																

Qualifiers(Q): * - Replicate % RPD was outside control limits

N - LCS recovery was outside method control limits

R - Percent RPD for LCS/LCSD recoveries was outside control limits

Comments:

C10120

Analyte:	Accuracy											Precision					
	Blank Data		Laboratory Control Samples										Replicate Sample Data				
	Method Blank Result ug/L	Reporting Limit ug/L	LCS True Value ug/L	LCS Conc. Found ug/L	LCS % Rec.	Q	LCSD Conc. Found ug/L	LCSD % Rec.	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for LCS/ LCSD % Rec.	Q	Original Result for Replicate ug/L	Replicate Result ug/L	Rep % RPD	Q	% RPD Cntrl. Limit
4-Methyl-2-Pentanone	ND	50.00																
Tetrachloroethene	ND	5.00																
1,1,2,2-Tetrachloroethane	ND	5.00																
Toluene	ND	5.00	50.0	43.71	87					76	125							13
Chlorobenzene	ND	5.00	50.0	44.74	89					75	130							13
Ethyl Benzene	ND	5.00																
Styrene	ND	5.00																
Xylenes, total	ND	5.00																
1,4-Dichlorobenzene	ND	5.00																
d8-Toluene	101				99					88	110							
Bromofluorobenzene	96				97					86	115							
1,2-Dichloroethane-d4	109				101					76	114							

Qualifiers(Q): * - Replicate % RPD was outside control limits
N - LCS recovery was outside method control limits
R - Percent RPD for LCS/LCSD recoveries was outside control limits

Comments: Toluene contamination in cell 5
caused toluene recovery to be outside limit
batch accepted on basis of ms/msd
2nd lcs outside 12 hours

Method 8240 - water

Quanterra QC Batch Summary

B501075-11

Analyte:	Accuracy										Precision			
	Matrix Spike/Matrix Spike Dup Batch QC Data													
	Unspiked Sample Result ug/L	MS Result ug/L	Spike Added ug/L	MS % Rec	Q	MSD Result ug/L	MSD % Rec	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for MS/MS % Rec.	% RPD for As Reps.	Q	% RPD Control Limits
1,1-Dichloroethene	0.0	209	250	83		185	74		61	145	12.1			14
Trichloroethene	0.0	212	250	85		221	89		71	120	4.2			14
Benzene	0.0	227	250	91		228	91		76	127	0.7			11
Toluene	0.0	230	250	92		224	89		76	125	3.0			13
Chlorobenzene	0.0	237	250	95		228	91		75	130	4.0			13
d8-Toluene				107			103		88	110	3.8			
Bromofluorobenzene				96			100		86	115	4.1			
1,2-Dichloroethane-d4				102			98		76	114	4.0			

Qualifiers(Q): H - Sample Concentration was greater than five times the spike level

N - Spike recovery was outside method control limits

R - Percent RPD for MS/MSD recoveries was outside control limits

D - Sample concentration was greater than five times the spike level

The RPD was calculated between the MS and MSD Results as relicates

Comments:

Method 8240 WATER

Quanterra QC Batch Summary

QC Batch ID	C10119
Preprep Method:	
Prep Method:	
Analysis Method:	8240
Batch Date:	1/19/95
Instrument ID	C
Batch (set) #:	1
Test Code:	8240

Batch QC Information

Matrix: WATER Analyst: SRB

Units: UG/L

QC Sample	Lab ID	Dil.Factor	Date	Time
Method Blank ID:	CBK19	1.00	1/18/95	1356
LCS ID:	CBS19	1.00	1/18/95	1522
LCSD ID:				
MS Sample ID:	B501075-04MS	1.00	1/19/95	1648
MSD Sample ID:	B501075-04MSD	1.00	1/20/95	1014
Rep Sample ID:				

Sample Numbers Associated With Batch:

#	Lab Sample ID
1	B501075-01
2	B501075-02
3	B501075-03
4	B501075-04
5	B501075-05
6	B501075-06
7	B501075-07
8	B501075-08
9	B501075-09
10	B501075-10
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Data reported to: PQL

General Comments for Batch

Method 8240 - WATER

C10119

Analyte:	Accuracy												Precision				
	Blank Data		Laboratory Control Samples										Replicate Sample Data				
	Method Blank Result ug/L	Reporting Limit ug/L	LCS True Value ug/L	LCS Conc. Found ug/L	LCS % Rec.	Q	LCSD Conc. Found ug/L	LCSD % Rec.	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for LCS/ LCSD % Rec.	Q	Original Result for Replicate ug/L	Replicate Result ug/L	Rep. % RPD	Q	% RPD Cntrl. Limit
Chloromethane	ND	10.00																
Bromomethane	ND	10.00																
Vinyl Chloride	ND	10.00																
Chloroethane	ND	10.00																
Acetone	ND	100.00																
Methylene Chloride	ND	10.00																
Carbon Disulfide	ND	5.00																
1,1-Dichloroethene	ND	5.00	50.0	45.55	91					61	145							14
1,1-Dichloroethane	ND	5.00																
trans 1,2-Dichloroethene	ND	5.00																
cis 1,2-Dichloroethene	ND	5.00																
Chloroform	ND	5.00																
1,2-Dichloroethane	ND	5.00																
2-Butanone	ND	100.00																
1,1,1-Trichloroethane	ND	5.00																
Carbon Tetrachloride	ND	5.00																
Vinyl Acetate	ND	10.00																
Bromodichloromethane	ND	5.00																
1,2-Dichloropropane	ND	5.00																
trans 1,3-Dichloropropene	ND	5.00																
Trichloroethene	ND	5.00	50.0	53.17	106					71	120							14
Dibromochloromethane	ND	5.00																
1,1,2 Trichloroethane	ND	5.00																
Benzene	ND	5.00	50.0	47.62	95					76	127							11
2-Hexanone	ND	50.00																

Qualifiers(Q): * - Replicate % RPD was outside control limits

N - LCS recovery was outside method control limits

R - Percent RPD for LCS/LCSD recoveries was outside control limits

Comments:

Method 8240 - WATER

C10119

Analyte:	Accuracy											Precision						
	Blank Data		Laboratory Control Samples											Replicate Sample Data				
	Method Blank Result ug/L	Reporting Limit ug/L	LCS True Value ug/L	LCS Conc. Found ug/L	LCS % Rec.	Q	LCSD Conc. Found ug/L	LCSD % Rec.	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for LCS/ LCSD % Rec.	Q	Original Result for Replicate ug/L	Replicate Result ug/L	Rep % RPD	Q	% RPD Cntrl Limit
4-Methyl-2-Pentanone	ND	50.00																
Tetrachloroethene	ND	5.00																
1,1,2,2-Tetrachloroethane	ND	5.00																
Toluene	ND	5.00	50.0	52.63	105					76	125							13
Chlorobenzene	ND	5.00	50.0	52.74	105					75	130							13
Ethyl Benzene	ND	5.00																
Styrene	ND	5.00																
Xylenes, total	ND	5.00																
1,4-Dichlorobenzene	ND	5.00																
d8-Toluene	106				109					88	110							
Bromofluorobenzene	111				107					86	115							
1,2-Dichloroethane-d4	107				106					76	114							

Qualifiers(Q): * - Replicate % RPD was outside control limits
N - LCS recovery was outside method control limits
R - Percent RPD for LCS/LCSD recoveries was outside control limits

Comments: Toluene contamination in cell 5
caused toluene recovery to be outside limit
batch accepted on basis of ms/msd
2nd lcs outside 12 hours

Method 8240 - water

Quanterra QC Batch Summary

B501075-04

Analyte:	Accuracy										Precision			
	Matrix Spike/Matrix Spike Dup Batch QC Data													
	Unspiked Sample Result ug/L	MS Result ug/L	Spike Added ug/L	MS % Rec	Q	MSD Result ug/L	MSD % Rec	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for MS/MS % Rec.	% RPD for As Reps.	Q	% RPD Control Limits
1,1-Dichloroethene	0.0	204	250	82		209	83		61	145	2.2			14
Trichloroethene	0.0	225	250	90		231	92		71	120	2.5			14
Benzene	0.0	226	250	90		216	86		76	127	4.7			11
Toluene	0.0	235	250	94		213	85		76	125	9.5			13
Chlorobenzene	0.0	254	250	101		230	92		75	130	9.9			13
d8-Toluene				103			96		88	110	7.0			
Bromofluorobenzene				107			91		86	115	16.2			
1,2-Dichloroethane-d4				107			102		76	114	4.8			

Qualifiers(Q): H - Sample Concentration was greater than five times the spike level

N - Spike recovery was outside method control limits

R - Percent RPD for MS/MSD recoveries was outside control limits

D - Sample concentration was greater than five times the spike level

The RPD was calculated between the MS and MSD Results as relicates

Comments:

13501076

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 407008
Page 1 of 3

Project Name/No. 1 ~~HWSE~~ HWSF
Sample Team Members 2 Giblin, Esquela, Blagh
Profit Center No. 3
Project Manager 4 Giblin / Blagh
Purchase Order No. 6
Required Report Date 11 ~~2-7~~ 1.20.95

Samples Shipment Date 7 1.9.95
Lab Destination 8
Lab Contact 9 Chris Schepoff
Project Contact/Phone 12 505-522-7229
Carrier/Waybill No. 13 FedEx 308239535

Bill to: 5
Report to: 10

ONE CONTAINER PER LINE

Sample Number 14	Sample Description/Type 15	Date/Time Collected 16	Container Type 17	Sample Volume 18	Pre-servative 19	Requested Testing Program 20	Condition on Receipt 21	Disposal Record No. 22
CW 3.75-4.0	Soil	1411 1.8.95	Brass Teflon	6"x2.75" ø	None	TCLP-TCE	good	
CW 2.0-2.5		1411 1-8-95					10C 1/10/95	
CW 1.0-1.5		1408 1-8-95						
CW 25.0-25.5		1438 1.8.95						
BE 10.5-11.0		1008 1.8.95						
CN 3.0-3.5		1518 1.8.95						
CS 4.0-4.5		1055 1-8-95						
BE 4.0-4.5		1004 1-8-95						

Special Instructions: 23

Possible Hazard Identification: 24
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal: 25
Return to Client ☐ Disposal by Lab ☒ Archive (mos.)

Turnaround Time Required: 26
Normal ☐ Rush ☐

QC Level: 27
I. ☐ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by 28 (Signature/Affiliation) Kelly Z. Blagh	Date: 1.9.95 Time: 1044	1. Received by 28 (Signature/Affiliation) Jerome Blake QI	Date: 1/10/95 Time: 0806
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: 29

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

B501076

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] _____

Project Name

Project No.

Samples Shipment Date

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
BE 15.0-15.5	Soil	1014 1-8-95	Brass & Teflon	6"x2.75 ø	None	TCLP-TCE	good 1/10	
CS 1.0-1.5		1048 1-8-95					1/10/95	
CN 5.0-5.5		1525 1-8-95						
CS 3.0-3.5		1053 1-8-95						
CN 2.0-2.5		1518 1-8-95						
CN 1.0-1.5		1515 1-8-95						
CN 10.0-10.5		1539 ~~1539~~ 1-8-95						
CS 2.0-2.5		1053 1-8-95						
BE 1.75-2.0		1000 1-8-95						
BE 3.0-3.5		1002 1-8-95						
CN 20.0-20.5		1600 1-8-95						
CE 10.0-10.5		1317 1-8-95						
CN 15.5-16.0		1548 1-8-95						
BE 25.0-25.5		1026 1-8-95						
CE 15.0-15.5		1324 1-8-95						
BN 1.75-2.0		910 1-8-95						
CE 1.75-2.0		1302 1-8-95						
CW 20.0-20.5		1433 1-8-95						
CE 20.0-20.5		1332 1-8-95						
BN 10.0-10.5		0916 1-8-95						

Yellow: Field copy

*See back of form for special instructions.

B501076

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] _____

Project Name

Project No.

Samples Shipment Date

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
CW 15.0-15.5	Soil	1425 1-8-95	Brass Teflon	6"x2.75" ø	None	TCLP-TCE	good	
CN 3.75-4.0	↓	1518 1-8-95	↓	↓			10C 1/10/95	
CN 25.5-26.0	↓	1616 1-8-95	↓	↓			gn	

White: To accompany samples

Yellow: Field copy

*See back of form for special instructions.

Quanterra
Environmental Services

CERTIFICATE OF ANALYSIS

ADVANCED SCIENCES INC
555 S TELSHOR
SUITE 310
LAS CRUCES NM 88001
KELLY BLOUGH

Date: 01/26/95

Work Order: B5-01-076

This is the Certificate of Analysis for the following samples:

Client Work ID: EVAP. TANK HWSF
Date Received: 01/10/95 09:06
Number of Samples: 21
Sample Type: SOIL

I. Introduction

Samples were labeled as follows:

SAMPLE IDENTIFICATION	LABORATORY #
CW 3.75-4.0	B5-01-076-01
CW 2.0-2.5	B5-01-076-02
CW 1.0-1.5	B5-01-076-03
CW 25.0-25.5	B5-01-076-04
BE 10.5-11.0	B5-01-076-05
CN 3.0-3.5	B5-01-076-06
CS 4.0-4.5	B5-01-076-07
BE 4.0-4.5	B5-01-076-08
BE 15.0-15.5	B5-01-076-09
CS 1.0-1.5	B5-01-076-10
CN 5.0-5.5	B5-01-076-11
CS 3.0-3.5	B5-01-076-12
CN 2.0-2.5	B5-01-076-13

Reviewed and Approved:

Jon Bartell
Laboratory Director

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-076

Samples, continued from above:

SAMPLE IDENTIFICATION	LABORATORY #
CN 1.0-1.5	B5-01-076-14
CN 10.0-10.5	B5-01-076-15
CS 2.0-2.5	B5-01-076-16
BE 1.75-2.0	B5-01-076-17
BE 3.0-3.5	B5-01-076-18
CN 20.0-20.5	B5-01-076-19
CE 10.0-10.5	B5-01-076-20
MATRIX SPIKE	B5-01-076-21

II. QA/QC

The results presented in this report meet the statement of work requirements in accordance with Quality Control and Quality Assurance protocol except as noted in Section IV or in an optional sample narrative at the end of Section III.

In the presented analytical data, 'ND' or '<' indicates that the compound is not detected at the specified limit.

III. Analytical Data

The following page(s) supply results for requested analyses performed on the samples listed above.

The test results relate to tested items only. Quanterra reserves the right to control report production except in whole.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-07

SAMPLE ID: CW 3.75-4.0
SAMPLE DATE: 01/08/95 14:11:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/18/95		DATE	01/18/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-076

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CW 3.75-4.0
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/21/95
FIRST ANALYSIS: 01/21/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	98	
Bromofluorobenzene	97	
1,2-Dichloroethane-D4	101	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-07

SAMPLE ID: CW 2.0-2.5
SAMPLE DATE: 01/08/95 14:11:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/18/95		DATE	01/18/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-076

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CW 2.0-2.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/21/95
FIRST ANALYSIS: 01/21/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	99	
Bromofluorobenzene	96	
1,2-Dichloroethane-D4	101	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

SAMPLE ID: CW 1.0-1.5
SAMPLE DATE: 01/08/95 14:08:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/18/95		DATE	01/18/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-076

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CW 1.0-1.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/21/95
FIRST ANALYSIS: 01/21/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	99	
Bromofluorobenzene	98	
1,2-Dichloroethane-D4	101	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-07

SAMPLE ID: CW 25.0-25.5
SAMPLE DATE: 01/08/95 14:38:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/18/95		DATE	01/18/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-076

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CW 25.0-25.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/21/95
FIRST ANALYSIS: 01/21/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	98	
Bromofluorobenzene	97	
1,2-Dichloroethane-D4	100	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-07

SAMPLE ID: BE 10.5-11.0
SAMPLE DATE: 01/08/95 10:08:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/18/95		DATE	01/18/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-076

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BE 10.5-11.0
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/21/95
FIRST ANALYSIS: 01/21/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	98	
Bromofluorobenzene	98	
1,2-Dichloroethane-D4	100	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-07

SAMPLE ID: CN 3.0-3.5
SAMPLE DATE: 01/08/95 15:18:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/18/95		DATE	01/18/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-076

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CN 3.0-3.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/21/95
FIRST ANALYSIS: 01/21/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	97	
Bromofluorobenzene	96	
1,2-Dichloroethane-D4	100	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

SAMPLE ID: CS 4.0-4.5
SAMPLE DATE: 01/08/95 10:55:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/18/95		DATE	01/18/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-076

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CS 4.0-4.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/23/95
FIRST ANALYSIS: 01/21/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	94	
Bromofluorobenzene	91	
1,2-Dichloroethane-D4	96	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-07

SAMPLE ID: BE 4.0-4.5
SAMPLE DATE: 01/08/95 10:04:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/18/95		DATE	01/18/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-076

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BE 4.0-4.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/23/95
FIRST ANALYSIS: 01/21/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	96	
Bromofluorobenzene	91	
1,2-Dichloroethane-D4	95	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-07(

SAMPLE ID: BE 15.0-15.5
SAMPLE DATE: 01/08/95 10:14:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/19/95		DATE	01/18/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-076

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BE 15.0-15.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/23/95
FIRST ANALYSIS: 01/23/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	94	
Bromofluorobenzene	90	
1,2-Dichloroethane-D4	95	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

SAMPLE ID: CS 1.0-1.5
SAMPLE DATE: 01/08/95 10:48:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/19/95		DATE	01/18/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-076

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CS 1.0-1.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/23/95
FIRST ANALYSIS: 01/23/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	94	
Bromofluorobenzene	91	
1,2-Dichloroethane-D4	94	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-

SAMPLE ID: CN 5.0-5.5
SAMPLE DATE: 01/08/95 15:25:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/19/95		DATE	01/18/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-076

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CN 5.0-5.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/23/95
FIRST ANALYSIS: 01/23/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	93	
Bromofluorobenzene	91	
1,2-Dichloroethane-D4	94	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

SAMPLE ID: CS 3.0-3.5
SAMPLE DATE: 01/08/95 10:53:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/19/95		DATE	01/18/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-076

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CS 3.0-3.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/23/95
FIRST ANALYSIS: 01/23/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	93	
Bromofluorobenzene	91	
1,2-Dichloroethane-D4	95	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

SAMPLE ID: CN 2.0-2.5
SAMPLE DATE: 01/08/95 15:18:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/19/95		DATE	01/18/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-076

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CN 2.0-2.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/23/95
FIRST ANALYSIS: 01/23/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	93	
Bromofluorobenzene	89	
1,2-Dichloroethane-D4	92	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-07

SAMPLE ID: CN 1.0-1.5
SAMPLE DATE: 01/08/95 15:15:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/19/95		DATE	01/18/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-076

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CN 1.0-1.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/23/95
FIRST ANALYSIS: 01/23/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	93	
Bromofluorobenzene	88	
1,2-Dichloroethane-D4	93	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

SAMPLE ID: CN 10.0-10.5
SAMPLE DATE: 01/08/95 15:39:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/19/95		DATE	01/18/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-076

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CN 10.0-10.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/23/95
FIRST ANALYSIS: 01/23/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	93	
Bromofluorobenzene	89	
1,2-Dichloroethane-D4	93	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-07

SAMPLE ID: CS 2.0-2.5
SAMPLE DATE: 01/08/95 10:53:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/19/95		DATE	01/18/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-076

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CS 2.0-2.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/23/95
FIRST ANALYSIS: 01/23/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	94	
Bromofluorobenzene	92	
1,2-Dichloroethane-D4	92	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

SAMPLE ID: BE 1.75-2.0
SAMPLE DATE: 01/08/95 10:00:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/19/95		DATE	01/18/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-076

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BE 1.75-2.0
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/23/95
FIRST ANALYSIS: 01/23/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	92	
Bromofluorobenzene	91	
1,2-Dichloroethane-D4	94	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-0

SAMPLE ID: BE 3.0-3.5
SAMPLE DATE: 01/08/95 10:02:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/19/95		DATE	01/18/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-076

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: BE 3.0-3.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/23/95
FIRST ANALYSIS: 01/23/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	94	
Bromofluorobenzene	92	
1,2-Dichloroethane-D4	94	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-07

SAMPLE ID: CN 20.0-20.5
SAMPLE DATE: 01/08/95 16:00:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/19/95		DATE	01/18/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-076

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CN 20.0-20.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/23/95
FIRST ANALYSIS: 01/23/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	94	
Bromofluorobenzene	91	
1,2-Dichloroethane-D4	93	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-07

SAMPLE ID: CE 10.0-10.5
SAMPLE DATE: 01/08/95 13:17:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/19/95		DATE	01/18/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-076

TEST NAME: TCLP Volatiles from Leach.
METHOD REFERENCE: EPA8240

SAMPLE ID: CE 10.0-10.5
SAMPLE DATE: 01/08/95
SAMPLE MATRIX: SOIL
ANALYSIS DATE: 01/23/95
FIRST ANALYSIS: 01/23/95
DILUTION FACTOR: 5
UNITS: MG/L

	Result	Reporting Limit
Trichloroethylene	ND	0.025
Surrogates	% Recovery	
Toluene-D8	96	
Bromofluorobenzene	92	
1,2-Dichloroethane-D4	94	

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-076

SAMPLE ID: MATRIX SPIKE
SAMPLE DATE:
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Zero Headspace Extraction		01/19/95		DATE	01/18/95	EPA1311

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-076

TEST NAME: **TCLP Volatiles from Leach.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **MATRIX SPIKE**
SAMPLE DATE:
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 01/23/95
FIRST ANALYSIS: 01/23/95
DILUTION FACTOR: 5
UNITS: % REC

	Result
Vinyl chloride	112
1,1-Dichloroethylene	98
Chloroform	98
1,2-Dichloroethane	85
2-Butanone	94
Carbon tetrachloride	92
Trichloroethylene	92
Benzene	97
Tetrachloroethylene	85
Chlorobenzene	85

Surrogates	% Recovery
Toluene-D8	92
Bromofluorobenzene	88
1,2-Dichloroethane-D4	96

Results have NOT been adjusted for matrix spike recoveries.

Quanterra Environmental Services

Company: ADVANCED SCIENCES INC
Date: 01/26/95
Client Work ID: EVAP. TANK HWSF

Work Order: B5-01-07

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **TCLP Volatiles from Leach.** TEST CODE **TCLP_V**

TCLP-Volatiles	Method 8240, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Purge and trap GC/MS analysis.

TEST NAME **Zero Headspace Extraction** TEST CODE **ZHE**

TCLP Preparation Zero Headspace	USEPA Method 1311-Federal Register Vol. 55, No. 126., June 29, 1990. Solid phase is extracted with a extraction fluid number one, equal to twenty times the weight of the solid phase. Extraction is performed in a zero-headspace apparatus meeting the specifications described in the method.

Method 8240 WATER

Quanterra QC Batch Summary

QC Batch ID	A10123
Preprep Method:	
Prep Method:	
Analysis Method:	8240
Batch Date:	1/23/95
Instrument ID	A
Batch (set) #:	1
Test Code:	8240

Batch QC Information

Matrix: WATER Analyst: SJB SJB

Units: UG/L

QC Sample	Lab ID	Dil.Factor	Date	Time
Method Blank ID:	ABK23	1.00	1/23/95	1204
LCS ID:	ABS23	1.00	1/23/95	1334
LCSD ID:				
MS Sample ID:	B501076-14MS	1.00	1/23/95	1842
MSD Sample ID:	B501076-14MSD	1.00	1/23/95	1912
Rep Sample ID:				

Sample Numbers Associated With Batch:

#	Lab Sample ID
1	B501076-14
2	B501076-15
3	B501076-16
4	B501076-17
5	B501076-18
6	B501076-19
7	B501076-20
8	B501076-20DUP
9	B501076-21
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Data reported to: PQL

General Comments for Batch

Method 8240 - WATER

A10123

Analyte:	Accuracy												Precision				
	Blank Data		Laboratory Control Samples										Replicate Sample Data				
	Method Blank Result ug/L	Reporting Limit ug/L	LCS True Value ug/L	LCS Conc. Found ug/L	LCS % Rec.	Q	LCSD Conc. Found ug/L	LCSD % Rec.	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for LCS/LCSD % Rec.	Q	Original Result for Replicate ug/L	Replicate Result ug/L	Rep. % RPD	Q	% RPD Cntrl. Limit
Chloromethane	ND	10.00																
Bromomethane	ND	10.00																
Vinyl Chloride	ND	10.00																
Chloroethane	ND	10.00																
Acetone	ND	100.00																
Methylene Chloride	ND	10.00																
Carbon Disulfide	ND	5.00																
1,1-Dichloroethene	ND	5.00	50.0	39.98	80					61	145							14
1,1-Dichloroethane	ND	5.00																
trans 1,2-Dichloroethene	ND	5.00																
cis 1,2-Dichloroethene	ND	5.00																
Chloroform	ND	5.00																
1,2-Dichloroethane	ND	5.00																
2-Butanone	ND	100.00																
1,1,1-Trichloroethane	ND	5.00																
Carbon Tetrachloride	ND	5.00																
Vinyl Acetate	ND	10.00																
Bromodichloromethane	ND	5.00																
1,2-Dichloropropane	ND	5.00																
trans 1,3-Dichloropropene	ND	5.00																
Trichloroethene	ND	5.00	50.0	45.05	93					71	120							14
Dibromochloromethane	ND	5.00																
1,1,2 Trichloroethane	ND	5.00																
Benzene	ND	5.00	50.0	47.33	95					76	127							11
2-Hexanone	ND	50.00																

Qualifiers(Q): * - Replicate % RPD was outside control limits

N - LCS recovery was outside method control limits

R - Percent RPD for LCS/LCSD recoveries was outside control limits

Comments:

Method 8240 - WATER

A10123

Analyte:	Accuracy											Precision					
	Blank Data		Laboratory Control Samples											Replicate Sample Data			
	Method Blank Result ug/L	Reporting Limit ug/L	LCS True Value ug/L	LCS Conc. Found ug/L	LCS % Rec.	Q	LCSD Conc. Found ug/L	LCSD % Rec.	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for LCS/ LCSD % Rec.	Q	Original Result for Replicate ug/L	Replicate Result ug/L	Rep % RPD	Q	% RPD Cntrl. Limit
4-Methyl-2-Pentanone	ND	50.00																
Tetrachloroethene	ND	5.00																
1,1,2,2-Tetrachloroethane	ND	5.00																
Toluene	ND	5.00	50.0	44.84	90					76	125							13
Chlorobenzene	ND	5.00	50.0	44.58	89					75	130							13
Ethyl Benzene	ND	5.00																
Styrene	ND	5.00																
Xylenes, total	ND	5.00																
1,4-Dichlorobenzene	ND	5.00																
d8-Toluene	95				95					88	110							
Bromofluorobenzene	93				91					86	115							
1,2-Dichloroethane-d4	100				97					76	114							

Qualifiers(Q): * - Replicate % RPD was outside control limits

N - LCS recovery was outside method control limits

R - Percent RPD for LCS/LCSD recoveries was outside control limits

Comments:

Method 8240 - WATER

Quanterra QC Batch Summary

B501076

Analyte:	Accuracy										Precision			
	Matrix Spike/Matrix Spike Dup Batch QC Data													
	Unspiked Sample Result ug/L	MS Result ug/L	Spike Added ug/L	MS % Rec	Q	MSD Result ug/L	MSD % Rec	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for MS/MS % Rec.	% RPD for As Reps.	Q	% RPD Control Limits
1,1-Dichloroethene	0.0	197	250	79		202	50		61	145	44.9			14
Trichloroethene	0.0	225	250	90		234	50		71	120	56.9			14
Benzene	0.0	234	250	94		244	50		76	127	60.7			11
Toluene	0.0	221	250	88		230	50		76	125	55.3			13
Chlorobenzene	0.0	225	250	90		235	50		75	130	57.0			13
d8-Toluene				94			94		88	110	0.0			
Bromofluorobenzene				91			89		86	115	2.2			
1,2-Dichloroethane-d4				94			95		76	114	1.1			

Qualifiers(Q): H - Sample Concentration was greater than five times the spike level

N - Spike recovery was outside method control limits

R - Percent RPD for MS/MSD recoveries was outside control limits

D - Sample concentration was greater than five times the spike level

The RPD was calculated between the MS and MSD Results as relicates

Comments:

Method 8240 WATER

Quanterra QC Batch Summary

QC Batch ID	A10120
Preprep Method:	
Prep Method:	
Analysis Method:	8240
Batch Date:	1/20/95
Instrument ID	A
Batch (set) #:	1
Test Code:	8240

Batch QC Information

Matrix: WATER Analyst: SRB

Units: UG/L

QC Sample	Lab ID	Dil.Factor	Date	Time
Method Blank ID:	ABK20	1.00	1/20/95	1653
LCS ID:	ABS20	1.00	1/20/95	1825
LCSD ID:				
MS Sample ID:	B501076-01MS	1.00	1/21/95	0037
MSD Sample ID:	B501076-01MSD	1.00	1/21/95	0108
Rep Sample ID:				

Sample Numbers Associated With Batch:

#	Lab Sample ID
1	B501076-01
2	B501076-02
3	B501076-03
4	B501076-04
5	B501076-05
6	B501076-06
7	B501076-07
8	B501076-08
9	B501204-11
10	B501204-12
11	B501215-10
12	B501215-11
13	B501215-12
14	B501208-08
15	B501200-01
16	B501076-09
17	B501076-10
18	B501076-11
19	B501076-12
20	B501076-13

Data reported to: PQL

General Comments for Batch

A10120

Analyte:	Accuracy											Precision					
	Blank Data		Laboratory Control Samples										Replicate Sample Data				
	Method Blank Result ug/L	Reporting Limit ug/L	LCS True Value ug/L	LCS Conc. Found ug/L	LCS % Rec.	Q	LCSD Conc. Found ug/L	LCSD % Rec.	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for LCS/ LCSD % Rec	Q	Original Result for Replicate ug/L	Replicate Result ug/L	Rep % RPD	Q	% RPD Cntrl. Limit
Chloromethane	ND	10.00																
Bromomethane	ND	10.00																
Vinyl Chloride	ND	10.00																
Chloroethane	ND	10.00																
Acetone	ND	100.00																
Methylene Chloride	ND	10.00																
Carbon Disulfide	ND	5.00																
1,1-Dichloroethene	ND	5.00	50.0	39.79	80					61	145							14
1,1-Dichloroethane	ND	5.00																
trans 1,2-Dichloroethene	ND	5.00																
cis 1,2-Dichloroethene	ND	5.00																
Chloroform	ND	5.00																
1,2-Dichloroethane	ND	5.00																
2-Butanone	ND	100.00																
1,1,1-Trichloroethane	ND	5.00																
Carbon Tetrachloride	ND	5.00																
Vinyl Acetate	ND	10.00																
Bromodichloromethane	ND	5.00																
1,2-Dichloropropane	ND	5.00																
trans 1,3-Dichloropropene	ND	5.00																
Trichloroethene	ND	5.00	50.0	47.25	95					71	120							14
Dibromochloromethane	ND	5.00																
1,1,2 Trichloroethene	ND	5.00																
Benzene	ND	5.00	50.0	47.95	96					76	127							11
2-Hexanone	ND	50.00																

Qualifiers(Q): * - Replicate % RPD was outside control limits

N - LCS recovery was outside method control limits

R - Percent RPD for LCS/LCSD recoveries was outside control limits

Comments:

A10120

Analyte:	Accuracy											Precision						
	Blank Data		Laboratory Control Samples											Replicate Sample Data				
	Method Blank Result ug/L	Reporting Limit ug/L	LCS True Value ug/L	LCS Conc. Found ug/L	LCS % Rec.	Q	LCSD Conc. Found ug/L	LCSD % Rec.	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for LCS/ LCSD % Rec.	Q	Original Result for Replicate ug/L	Replicate Result ug/L	Rep % RPD	Q	% RPD Cntrl. Limit
4-Methyl-2-Pentanone	ND	50.00																
Tetrachloroethene	ND	5.00																
1,1,2,2-Tetrachloroethane	ND	5.00																
Toluene	ND	5.00	50.0	47.92	96					76	125							13
Chlorobenzene	ND	5.00	50.0	46.91	94					75	130							13
Ethyl Benzene	ND	5.00																
Styrene	ND	5.00																
Xylenes, total	ND	5.00																
1,4-Dichlorobenzene	ND	5.00																
d8-Toluene	98				100					88	110							
Bromofluorobenzene	99				98					86	115							
1,2-Dichloroethane-d4	107				101					76	114							

Qualifiers(Q):
* - Replicate % RPD was outside control limits
N - LCS recovery was outside method control limits
R - Percent RPD for LCS/LCSD recoveries was outside control limits

Comments: Toluene contamination in cell 5
caused toluene recovery to be outside limit
batch accepted on basis of ms/msd
2nd lcs outside 12 hours

Method 8240 - water

Quanterra QC Batch Summary

B501076-01

Analyte:	Accuracy										Precision			
	Matrix Spike/Matrix Spike Dup Batch QC Data													
	Unspiked Sample Result ug/L	MS Result ug/L	Spike Added ug/L	MS % Rec	Q	MSD Result ug/L	MSD % Rec	Q	Lower Cntrl. Limit	Upper Cntrl. Limit	% RPD for MS/MS % Rec.	% RPD for As Reps.	Q	% RPD Control Limits
1,1-Dichloroethene	0.0	202	250	81		201	80		61	145	0.3			14
Trichloroethene	0.0	242	250	97		247	99		71	120	1.9			14
Benzene	0.0	244	250	97		250	100		76	127	2.5			11
Toluene	0.0	246	250	98		248	99		76	125	1.1			13
Chlorobenzene	0.0	241	250	97		245	98		75	130	1.4			13
d8-Toluene				99			97		88	110	2.0			
Bromofluorobenzene				98			95		86	115	3.1			
1,2-Dichloroethane-d4				104			102		76	114	1.9			

Qualifiers(Q): H - Sample Concentration was greater than five times the spike level

N - Spike recovery was outside method control limits

R - Percent RPD for MS/MSD recoveries was outside control limits

D - Sample concentration was greater than five times the spike level

The RPD was calculated between the MS and MSD Results as relicates

Comments:

Appendix B

Secondary Laboratory Analytical Results

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INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 407004
Page 1 of 2

Project Name/No. 1 Evap Tank 4 WSF
Samples Shipment Date 7 1.5.95
Bill to: 5
Sample Team Members 2 B Baugh, Esquivel, Gallina
Lab Destination 8
Profit Center No. 3
Lab Contact 9 Chris Sabey Dr. Gomez
Project Manager 4 Gallina / Baugh
Project Contact/Phone 12 505.522.7224
Report to: 10
Purchase Order No. 6
Carrier/Waybill No. 13
Required Report Date 11 1.20.95

ONE CONTAINER PER LINE

Sample Number 14	Sample Description/Type 15	Date/Time Collected 16	Container Type 17	Sample Volume 18	Pre-servative 19	Requested Testing Program 20	Condition on Receipt 21	Disposal Record No. 22
AW-1	Soil	1.5.95 0730	Teflon Bags	6"x2"	none	TCLP-TCE		
AW-2		1.5.95 0740					FOR LAB USE ONLY	
AW-3		1.5.95 0745						
AW-4		1.5.95 0755						
AW-5		1.5.95 0800					FOR LAB USE ONLY	
AW-10		1.5.95 0810						
AW-15		1.5.95 0820						
AW-21		1.5.95 0835						

COPY

Special Instructions: 23

Possible Hazard Identification: 24
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal: 25
Return to Client ☐ Disposal by Lab ☒ Archive (mos.)

Turnaround Time Required: 26
Normal ☐ Rush ☐

QC Level: 27
I. ☐ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by 28 (Signature/Affiliation)	Date: 1/6/95 Time: 0810	1. Received by 28 (Signature/Affiliation)	Date: 6 JAN 95 Time: 0830
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: 29

MCA 3/15/91

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 409004

Project Name Exp Tank HOUSE

Project No.

Samples Shipment Date

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
AW.25	Soil	1.5.95 0848	Teflon + Brass	Glass jar 2"Ø	None	TCLP-TCE		
AW.30		1.5.95 0900					FOR LAB USE ONLY	
AS.01		1.5.95 0943						
AS.02		1.5.95 0945						
AS-03		1.5.95 0951					FOR LAB USE ONLY	
AS.04		1.5.95 0955						
AS.05		1.5.95 1000					FOR LAB USE ONLY	
AS-10		1.5.95 1005						
AS.15		1.5.95 1015					FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	

COPY

9

White: To accompany samples Yellow: Field copy

*See back of form for special instructions.

MCA 3/15/91

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 407006
Page 1 of 3

Project Name/No. [1] EVAP TANK HOUSE
Sample Team Members [2] Plough, Esquivada, Giblin
Profit Center No. [3]
Project Manager [4] Plough, Giblin
Purchase Order No. [6]
Required Report Date [11] 1.20.95

Samples Shipment Date [7] 1-9-95
Lab Destination [8]
Lab Contact [9] Dr. Gomez
Project Contact/Phone [12]
Carrier/Waybill No. [13]

Bill to: [5]
Report to: [10]

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Preservative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
AS-19.5-20.0	Soil	1-7-95 08:25	Teflon Brass	6"x2"	None	TCLP - TCE		
AS-24.5-25.0		1-7-95 08:30					FOR LAB USE ONLY	
AN-.5-1.0		1-7-95 09:00						
AN-1.5-2.0		1-7-95 09:05						
AN-2.75-3.0		1-7-95 09:10					FOR LAB USE ONLY	
AN-3.5-3.75		1-7-95 09:15						
AN-5.0-5.25		1-7-95 09:20						
AN-10.0-10.5		1-7-95 09:23						

COPY

Special Instructions: [23]

Possible Hazard Identification: [24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison-B ☐ Unknown ☐

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☑ Archive ____ (mos.)

Turnaround Time Required: [26]
Normal ☐ Rush ☐

QC Level: [27]
I. ☐ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by [28] (Signature/Affiliation)	Date: 1.9.95 Time: 12:4	1. Received by [28] (Signature/Affiliation)	Date: 9 Jan 95 Time: 1248
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: [29]

MCA 3/15/91

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 407006

Project Name EVAP. TANK HWSF

Project No.

Samples Shipment Date 1/9/95

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
AN-14.5-15.0	SOIL	1-7-95 09:25	TEFLON GLASS	6" x 2"	NONE	TCLP-TCE		
AN-19.5-20.0		1-7-95 09:27						
AN-24.5-25.0		1-7-95 09:30						
AE-.5-1.0		1-7-95 09:52						
AE-1.5-1.75		1-7-95 09:54						
AE-2.5-3.0		1-7-95 09:57						
AE-3.5-3.75		1-7-95 09:59						
AE-5.0-5.5		1-7-95 10:02						
AE-9.5-10.0		1-7-95 10:05						
AE-14.5-15.0		1-7-95 10:07						
AE-19.5-20.0		1-7-95 10:11						
AE-25.0-25.5		1-7-95 10:16						
BW-0.5-1.0		1-7-95 12:13						
BW-1.5-1.75		1-7-95 12:15						
BW-2.5-3.0		1-7-95 12:19						
BW-3.5-3.75		1-7-95 12:23						
BW-5.0-5.5		1-7-95 12:27						
BW-9.5-10.0		1-7-95 12:31						
BW-15.0-15.5		1-7-95 12:35						
BW-19.5-20.0		1-7-95 12:40						

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INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 907006

Project Name EVAP TANK HWSF

Project No.

Samples Shipment Date 1/9/95

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
BW-24.5-25.0	SOIL	1-7-95 12:48	TEFLON RODS	6" x 2"	NONE	TCLP-TCE		
BS-0.5-1.0		1-7-95 12:18						
BS-1.5-1.75		1-7-95 12:20						
BS-2.5-3.0		1-7-95 12:23						
BS-3.5-3.75		1-7-95 12:25						
BS-5.0-5.5		1-7-95 13:27						
BS-9.5-10.0		1-7-95 13:32						
BS-14.5-15.0		1-7-95 13:37						
BS-19.5-20.0		1-7-95 13:43						
BS-24.5-25.0		1-7-95 13:56						
CN-19.5-20.0		1600 1-8-95						
CE 3.5-3.75		1306 1-8-95						
CN 15.0-15.5		1548 1-8-95						
BN 1.5-1.75		905 1.8.95						
BN 0.5-1.0		~~0904~~ 0910 1.8.95						
BN 4.5-5.0		0913 1.8.95						
BN 3.5-4.0		0910 1.8.95						
CN 3.5-3.75		1518 1.8.95						
CN 25.0-25.5		1616 1.8.95						
CN 0.5-1.0		1515 1.8.95						

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 407007
Page 1 of 3

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Project Name/No. 1 HWSF
Sample Team Members 2 Giblin, Esqueda, Blough
Profit Center No. 3
Project Manager 4 Giblin/Blough
Purchase Order No. 6
Required Report Date 11 1.20.95

Samples Shipment Date 7 1.9.95
Lab Destination 8
Lab Contact 9 Dr. Gomez
Project Contact/Phone 12 505-522-7229
Carrier/Waybill No. 13

Bill to: 5
Report to: 10

ONE CONTAINER PER LINE

Sample Number 14	Sample Description/Type 15	Date/Time Collected 16	Container Type 17	Sample Volume 18	Pre-servative 19	Requested Testing Program 20	Condition on Receipt 21	Disposal Record No. 22
CS 0.5-1.0	Soil	1048 1.8.95	6"x2.75" brass+Tefl	6"x2.75"	None	TCLP-TCE		
CS 3.5-4.0		1053 1.8.95	Brass Teflon	6"x2.75"			FOR LAB USE ONLY	
CS 14.5-15.0		1108 1.8.95						
CS 1.5-2.0		10[illegible] 1.8.95						
CS 2.5-3.0		105[illegible] 1.8.95						
CS 4.5-5.0		1055 1.8.95					FOR LAB USE ONLY	
CE 9.5-10.0		1317 1.8.95						
BN 19.5-20.0		0927 1.8.95						

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Special Instructions: 23

Possible Hazard Identification: 24
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal: 25
Return to Client ☐ Disposal by Lab ☒ Archive ____ (mos.)

Turnaround Time Required: 26
Normal ☐ Rush ☐

QC Level: 27
I. ☐ II. ☐ III. ☐ Project Specific (specify): ____

1. Relinquished by 28 (Signature/Affiliation) [signature]	Date: 1.11.95 Time: 1241	1. Received by 28 (Signature/Affiliation) [signature]	Date: 1.11.95 Time: 1248
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: 29

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 407007
Page 2 of 3

Project Name HWSF

Project No.

Samples Shipment Date 1.9.95

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
CE 2.5-3.0	Soil	1306 1.8.95	Brass + Teflon	6"x2.75" Ø	None	TCLP-TCE		
CE 5.0-5.5		1309 1.8.95						
BN 24.5-25.0		0932 1.8.95						
BN 14.5-15.0		0921 1.8.95						
CE 14.5-15.0		1324 1.8.95						
CN 1.5-2.0		1515 1.8.95						
CS 9.5-10.0		1103 1.8.95						
CW 14.5-15.0		1425 1.8.95						
CE 1.5-1.75		1312 1.8.95						
BE 19.5-20.0		1021 1.8.95						
CE 19.5-20.0		1332 1.8.95						
BE 4.5-5.0		1004 1.8.95						
CW 9.5-10.0		1418 1.8.95						
CS 24.5-25.0		1126 1.8.95						
CN 4.5-5.0		1525 1.8.95						
CN ~~9.0~~ 9.5-10.0		1539 1.8.95						
BE 24.5-25.0		1026 1.8.95						
SCW 0.5-1.0		1408 1.8.95						
CW 3.5-3.75		1411 1.8.95						
BN 9.5-10.0		0916 1.8.95						

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 407007
Page 3 of 3

Project Name HWSF

Project No.

Samples Shipment Date 1.9.95

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
CE 0.5-1.0	Soil	1302 1.8.95	Brass + Teflon	6"x2.75" ø	None	TCLP-TCE		
CS 19.5-20.0		1117 1.8.95					FOR LAB USE ONLY	
CW 2.5-3.0		1411 1.8.95						
BE 2.5-3.0		1002 1.8.95						
CE 24.5-25.0		1341 1.8.95						
CW 19.5-20.0		1433 1.8.95						
BE 14.5-15.0		1014 1.8.95						
BE 0.5-1.0		1000 1.8.95						
BE 1.5-1.75		1000 1.8.95						
BE 3.5-4.0		1002 1.8.95						
CW 4.5-5.0		1413 1.8.95						
CW 24.5-25.0		1438 1.8.95						
BE 10.0-10.5		1008 1.8.95						
CN 2.5-3.0		1518 1.8.95						
CW 1.5-2.0		1408 1.8.95						

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MCA 3/15/91

STEWS-MTD-AA (70-10r) 31 JAN 1995

MEMORANDUM FOR DES-E, ATTN: Mr. Magallanes

SUBJECT: Soil Analysis

1. In response to your verbal request, the Applied Environments Test Branch (MTD-AA) Chemistry Laboratory analyzed 108 soil samples for their Trichloroethylene (TCE) content.

2. Results. The results appear in Table 1, Encl 1.

3. The samples were obtained by Advanced Sciences, Inc. personnel and were delivered to the laboratory on 06 Jan 95 and on 09 Jan 95. The analyses were completed on 11 Jan 95.

4. The samples were extracted with isooctane and were analyzed by Gas Chromatography using an Electron Capture Detector. Freshly prepared standards of TCE were used for quantitation.

5. Point of contact is Dr. Joseph E. Gomez, 678-2992.

Encl
as

ANDRUS GARAY
Chief, Applied Envr Test Branch

TABLE 1

Soil Analysis - Trichloroethylene

Identification	TCE Concentration parts per million
AW-1	ND
AW-2	ND
AW-3	ND
AW-4	ND
AW-5	ND
AW-10	ND
AW-15	ND
AW-21	ND
AW-25	ND
AW-30	ND
AS-01	ND
AS-02	ND
AS-03	ND
AS-04	ND
AS-05	ND
AS-10	ND
AS-15	ND
AS-19.5-20.0	ND
AS-24.5-25.0	ND
AN-0.5-1.0	ND
AN-1.5-2.0	ND
AN-2.75-3.0	ND
AN-3.5-3.75	ND
AN-5.0-5.25	ND
AN-10.0-10.5	ND
AN-14.5-15.0	ND
AN-19.5-20.0	ND
AN-24.5-25.0	ND
AE-0.5-1.0	ND
AE-1.5-1.75	ND
AE-2.5-3.0	ND
AE-3.5-3.75	ND
AE-5.0-5.5	ND
AE-9.5-10.0	ND
AE-14.5-15.0	ND
AE-19.5-20.0	ND
AE-25.0-25.5	ND
BW-0.5-1.0	ND
BW-1.5-1.75	ND
BW-2.5-3.0	ND
BW-3.5-3.75	ND
BW-5.0-5.5	ND
BW-9.5-10.0	ND
BW-15.0-15.5	ND

Identification	TCE Concentration parts per million
BW-19.5-20.0	ND
BW-24.5-25.0	ND
BS-0.5-1.0	ND
BS-1.5-1.75	ND
BS-2.5-3.0	ND
BS-3.5-3.75	ND
BS-5.0-5.5	ND
BS-9.5-10.0	ND
BS-14.5-15.0	ND
BS-19.5-20.0	ND
BS-24.5-25.0	ND
CN-19.5-20.0	ND
CE-3.5-3.75	ND
CN-15.0-15.5	ND
BN-1.5-1.75	ND
BN-0.5-1.0	ND
BN-4.5-5.0	ND
BN-3.5-4.0	ND
CN-3.5-3.75	ND
CN-25.0-25.5	ND
CN-0.5-1.0	ND
CS-0.5-1.0	ND
CS-3.5-4.0	ND
CS-14.5-15.0	ND
CS-1.5-2.0	ND
CS-2.5-3.0	ND
CS-4.5-5.0	ND
CE-9.5-10.0	ND
BN-19.5-20.0	ND
CE-2.5-3.0	ND
CE-5.0-5.5	ND
BN-24.5-25.0	ND
BN-14.5-15.0	ND
CE-14.5-15.0	ND
CN-1.5-2.0	ND
CS-9.5-10.0	ND
CW-14.5-15.0	ND
CE-1.5-1.75	ND
BE-19.5-20.0	ND
CE-19.5-20.0	ND
BE-4.5-5.0	ND
CW-9.5-10.0	ND
CS-24.5-25.0	ND
CN-4.5-5.0	ND
CN-9.5-10.0	ND
BE-24.5-25.0	ND
CW-0.5-1.0	ND
CW-3.5-3.75	ND
BN-9.5-10.0	ND
CE-0.5-1.0	ND
CS-19.5-20.0	ND

Identification	TCE Concentration parts per million
CW-2.5-3.0	ND
BE-2.5-3.0	ND
CE-24.5-25.0	ND
CW-19.5-20.0	ND
BE-14.5-15.0	ND
BE-0.5-1.0	ND
BE-1.5-1.75	ND
BE-3.5-4.0	ND
CW-4.5-5.0	ND
CW-24.5-25.0	ND
BE-10.0-10.5	ND
CN-2.5-3.0	ND
CW-1.5-2.0	ND

ND = None Detected (TCE Detection Limit = 0.01 parts per million)

Appendix C

Prior TCE Soil Sampling Results

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CLIENT Advanced Sciences Inc.
555 S. Telshor Ste 310
Las Cruces, NM 88001

SAMPLE NO. : 6202702
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #1 0"-6"
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-13-92
ANALYSIS DATE .: 10-15-92

Organic TCLP Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Benzene	<0.5	mg/L	0.5
Carbon tetrachloride	<0.5	mg/L	0.5
Chlorobenzene	<100.	mg/L	100.
Chloroform	<6.0	mg/L	6.0
1,2-Dichloroethane	<0.5	mg/L	0.5
1,1-Dichloroethylene	<0.7	mg/L	0.7
Methyl ethyl ketone	<200.	mg/L	200.
Tetrachloroethylene	<0.7	mg/L	0.7
Trichloroethylene	1.6	mg/L	0.5
Vinyl Chloride	<0.2	mg/L	0.2

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CLIENT Advanced Sciences Inc.
555 S. Telshor Ste 310
Las Cruces, NM 88001

SAMPLE NO. : 6202703
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #1 30"-36"
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-13-92
ANALYSIS DATE .: 10-15-92

Organic TCLP Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Benzene	<0.5	mg/L	0.5
Carbon tetrachloride	<0.5	mg/L	0.5
Chlorobenzene	<100.	mg/L	100.
Chloroform	<6.0	mg/L	6.0
1,2-Dichloroethane	<0.5	mg/L	0.5
1,1-Dichloroethylene	<0.7	mg/L	0.7
Methyl ethyl ketone	<200.	mg/L	200.
Tetrachloroethylene	<0.7	mg/L	0.7
Trichloroethylene	1.3	mg/L	0.5
Vinyl Chloride	<0.2	mg/L	0.2

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Managing Director

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10737 Gateway West, No. 100
El Paso, Texas 79935
(915) 592-3591 • fax 592-3594

CLIENT Advanced Sciences Inc.
555 S. Telshor Ste 310
Las Cruces, NM 88001

SAMPLE NO. : 6202704
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #2 0"- 6"
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-14-92
ANALYSIS DATE .: 10-15-92

Organic TCLP Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Benzene	<0.5	mg/L	0.5
Carbon tetrachloride	<0.5	mg/L	0.5
Chlorobenzene	<100.	mg/L	100.
Chloroform	<6.0	mg/L	6.0
1,2-Dichloroethane	<0.5	mg/L	0.5
1,1-Dichloroethylene	<0.7	mg/L	0.7
Methyl ethyl ketone	<200.	mg/L	200.
Tetrachloroethylene	<0.7	mg/L	0.7
Trichloroethylene	<0.5	mg/L	0.5
Vinyl Chloride	<0.2	mg/L	0.2

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SAMPLE NO. : 6202705
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #2 30"-36"
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-14-92
ANALYSIS DATE .: 10-15-92

Organic TCLP Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Benzene	<0.5	mg/L	0.5
Carbon tetrachloride	<0.5	mg/L	0.5
Chlorobenzene	<100.	mg/L	100.
Chloroform	<6.0	mg/L	6.0
1,2-Dichloroethane	<0.5	mg/L	0.5
1,1-Dichloroethylene	<0.7	mg/L	0.7
Methyl ethyl ketone	<200.	mg/L	200.
Tetrachloroethylene	<0.7	mg/L	0.7
Trichloroethylene	1.0	mg/L	0.5
Vinyl Chloride	<0.2	mg/L	0.2

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CLIENT Advanced Sciences Inc.
555 S. Telshor Ste 310
Las Cruces, NM 88001

SAMPLE NO. : 6202706
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #3 0"-6"
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-15-92
ANALYSIS DATE .: 10-19-92

Organic TCLP Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Benzene .....:	<0.5	mg/L	0.5
Carbon tetrachloride .....:	<0.5	mg/L	0.5
Chlorobenzene .....:	<100.	mg/L	100.
Chloroform .....:	<6.0	mg/L	6.0
1,2-Dichloroethane .....:	<0.5	mg/L	0.5
1,1-Dichloroethylene .....:	<0.7	mg/L	0.7
Methyl ethyl ketone .....:	<200.	mg/L	200.
Tetrachloroethylene .....:	<0.7	mg/L	0.7
Trichloroethylene .....:	0.53	mg/L	0.5
Vinyl Chloride .....:	<0.2	mg/L	0.2

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CLIENT Advanced Sciences Inc.
555 S. Telshor Ste 310
Las Cruces, NM 88001

SAMPLE NO. : 6202707
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #30"-36"
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-19-92
ANALYSIS DATE .: 10-19-92

Organic TCLP Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Benzene	<0.5	mg/L	0.5
Carbon tetrachloride	<0.5	mg/L	0.5
Chlorobenzene	<100.	mg/L	100.
Chloroform	<6.0	mg/L	6.0
1,2-Dichloroethane	<0.5	mg/L	0.5
1,1-Dichloroethylene	<0.7	mg/L	0.7
Methyl ethyl ketone	<200.	mg/L	200.
Tetrachloroethylene	<0.7	mg/L	0.7
Trichloroethylene	<0.5	mg/L	0.5
Vinyl Chloride	<0.2	mg/L	0.2

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CLIENT Advanced Sciences Inc.
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Las Cruces, NM 88001

SAMPLE NO. : 6300522
INVOICE NO.: 62130123
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 1 OF 2

CLIENT SAMPLE ID : Evap. Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: E-Middle
ANALYST .....: S.Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : 9967 40 09
SAMPLE DATE ...: 02-12-93
SUBMITTAL DATE : 12-16-93
EXTRACTION DATE: 03-11-93
ANALYSIS DATE .: 03-11-93

Method 8260 - Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
Acetone	<100.	ug/Kg	100.
Acrolein	<1000.	ug/Kg	1000.
Acrylonitrile	<1000.	ug/Kg	1000.
Benzene	<50.	ug/Kg	50.
Bromodichloromethane	<100.	ug/Kg	100.
Bromoform	<100.	ug/Kg	100.
Bromomethane	<100.	ug/Kg	100.
Carbon Disulfide	<10.	ug/Kg	10.
Carbon tetrachloride	<50.	ug/Kg	50.
Chlorobenzene	<50.	ug/Kg	50.
Dibromochloromethane	<100.	ug/Kg	100.
Chloroethane	<100.	ug/Kg	100.
Chloroform	<50.	ug/Kg	50.
Chloromethane	<100.	ug/Kg	100.
3-Chloropropene	<100.	ug/Kg	100.
1,2-Dibromo-3-chloropropane	<50.	ug/Kg	50.
1,2Dibromoethane	<100.	ug/Kg	100.
Dibromomethane	<250.	ug/Kg	250.
trans-1,4-Dichloro-2-Butene	<100.	ug/Kg	100.
Dichlorodifluoromethane	<250.	ug/Kg	250.
1,1-Dichloroethane	<50.	ug/Kg	50.
1,2-Dichloroethane	<50.	ug/Kg	50.
1,1-Dichloroethene	<50.	ug/Kg	50.
trans 1,2-Dichloroethene	<50.	ug/Kg	50.
ichloromethane	<50.	ug/Kg	50.
,2-Dichloropropane	<50.	ug/Kg	50.
hloroethylvinyl Ether	<50.	ug/Kg	50.
Cis 1,3-Dichloropropylene	<50.	ug/Kg	50.
1,4-Dioxane	<200.	ug/Kg	200.
Ethylbenzene	<50.	ug/Kg	50.

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SAMPLE NO. : 6300522
INVOICE NO.: 62130123
REPORT DATE: 02-23-93
REVIEWED BY: ///

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide	<500.	ug/Kg	500.
Ethylmethacrylate	<1000.	ug/Kg	1000.
2-Hexanone	<100.	ug/Kg	100.
Iodomethane (Methyliodide)	<100.	ug/Kg	100.
Isobutyl alcohol	<100.	ug/Kg	100.
Methacrylonitrile	<500.	ug/Kg	500.
Methyl ethyl ketone	<100.	ug/Kg	100.
Methyl Methacrylate	<500.	ug/Kg	500.
Methyl isobutyl ketone	<100.	ug/Kg	100.
tyrene	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethene	<50.	ug/Kg	50.
Toluene	<50.	ug/Kg	50.
1,1,1-Trichloroethane	<50.	ug/Kg	50.
1,1,2-Trichloroethane	<50.	ug/Kg	50.
Trichloroethene	<50.	ug/Kg	50.
Trichlorofluoromethane	<100.	ug/Kg	100.
1,2,3-Trichloropropane	<50.	ug/Kg	50.
Vinyl Acetate	<1000.	ug/Kg	1000.
Vinyl chloride	<100.	ug/Kg	100.
Xylenes	<10.	ug/Kg	10.
1,1,1,2-Tetrachloroethane	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethane	<50.	ug/Kg	50.

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SAMPLE NO. : 6300523
INVOICE NO.: 62130123
REPORT DATE: 02-23-93
REVIEWED BY: GG
PAGE : 1 OF 1

CLIENT SAMPLE ID : Evap. Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: F-East
ANALYST .....: S. Smith

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : 9967 40 09
SAMPLE DATE ...: 02-12-93
SUBMITTAL DATE : 12-16-93
EXTRACTION DATE: 02-23-93
ANALYSIS DATE .: 03-02-93

Method 8150 - Chlorinated Herbicides

DATA TABLE

Parameter	Result	Unit	Detection Limit
.,4,5-T ....:	<40.	ug/Kg	40.
.,4,5-TP (Silvex) ....:	<40.	ug/Kg	40.
2,4-D ....:	<200.	ug/Kg	200.
2,4-DB ....:	<200.	ug/Kg	200.
Dalapon ....:	<1000.	ug/Kg	1000.
Dicamba ....:	<200.	ug/Kg	200.
Dichlorprop ....:	<200.	ug/Kg	200.
Dinoseb ....:	<200.	ug/Kg	200.
MCPA ....:	<4000.	ug/Kg	4000.
MCPP ....:	<5000.	ug/Kg	5000.

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SAMPLE NO. : 6300523
INVOICE NO.: 62130123
REPORT DATE: 02-23-93
REVIEWED BY: [illegible]

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide	<500.	ug/Kg	500.
Ethylmethacrylate	<1000.	ug/Kg	1000.
2-Hexanone	<100.	ug/Kg	100.
Iodomethane (Methyliodide)	<100.	ug/Kg	100.
Isobutyl alcohol	<100.	ug/Kg	100.
Methacrylonitrile	<500.	ug/Kg	500.
Methyl ethyl ketone	<100.	ug/Kg	100.
Methyl Methacrylate	<500.	ug/Kg	500.
Methyl isobutyl ketone	<100.	ug/Kg	100.
Styrene	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethene	<50.	ug/Kg	50.
Toluene	<50.	ug/Kg	50.
1,1,1-Trichloroethane	<50.	ug/Kg	50.
1,1,2-Trichloroethane	<50.	ug/Kg	50.
Trichloroethene	<50.	ug/Kg	50.
Trichlorofluoromethane	<100.	ug/Kg	100.
1,2,3-Trichloropropane	<50.	ug/Kg	50.
Vinyl Acetate	<1000.	ug/Kg	1000.
Vinyl chloride	<100.	ug/Kg	100.
Xylenes	<10.	ug/Kg	10.
1,1,1,2-Tetrachloroethane	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethane	<50.	ug/Kg	50.

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SAMPLE NO. : 6300446
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 1 OF 2

CLIENT SAMPLE ID : 2B
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 72"-80"
ANALYST .....: I.Hrabovsky

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-26-96
ANALYSIS DATE .: 02-26-93

Method 8260 - Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
Acetone	<100.	ug/Kg	100.
Acrolein	<1000.	ug/Kg	1000.
Acrylonitrile	<1000.	ug/Kg	1000.
Benzene	<50.	ug/Kg	50.
Bromodichloromethane	<100.	ug/Kg	100.
Bromoform	<100.	ug/Kg	100.
Bromomethane	<100.	ug/Kg	100.
Carbon Disulfide	<10.	ug/Kg	10.
Carbon tetrachloride	<50.	ug/Kg	50.
Chlorobenzene	<50.	ug/Kg	50.
Dibromochloromethane	<100.	ug/Kg	100.
Chloroethane	<100.	ug/Kg	100.
Chloroform	<50.	ug/Kg	50.
Chloromethane	<100.	ug/Kg	100.
3-Chloropropene	<100.	ug/Kg	100.
1,2-Dibromo-3-chloropropane	<50.	ug/Kg	50.
1,2Dibromoethane	<100.	ug/Kg	100.
Dibromomethane	<250.	ug/Kg	250.
trans-1,4-Dichloro-2-Butene	<100.	ug/Kg	100.
Dichlorodifluoromethane	<250.	ug/Kg	250.
1,1-Dichloroethane	<50.	ug/Kg	50.
1,2-Dichloroethane	<50.	ug/Kg	50.
1,1-Dichloroethene	<50.	ug/Kg	50.
trans 1,2-Dichloroethene	<50.	ug/Kg	50.
Dichloromethane	<50.	ug/Kg	50.
1,2-Dichloropropane	<50.	ug/Kg	50.
Chloroethylvinyl Ether	<50.	ug/Kg	50.
Cis 1,3-Dichloropropylene	<50.	ug/Kg	50.
1,4-Dioxane	<200.	ug/Kg	200.
Ethylbenzene	<50.	ug/Kg	50.

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SAMPLE NO. : 6300446
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY: [illegible]
PAGE : 2 OF 2

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide	<500.	ug/Kg	500.
Ethylmethacrylate	<1000.	ug/Kg	1000.
2-Hexanone	<100.	ug/Kg	100.
Iodomethane (Methyliodide)	<100.	ug/Kg	100.
Isobutyl alcohol	<100.	ug/Kg	100.
Methacrylonitrile	<500.	ug/Kg	500.
Methyl ethyl ketone	<100.	ug/Kg	100.
Methyl Methacrylate	<500.	ug/Kg	500.
Methyl isobutyl ketone	<100.	ug/Kg	100.
Styrene	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethene	<50.	ug/Kg	50.
Toluene	<50.	ug/Kg	50.
1,1,1-Trichloroethane	<50.	ug/Kg	50.
1,1,2-Trichloroethane	<50.	ug/Kg	50.
Trichloroethene	<50.	ug/Kg	50.
Trichlorofluoromethane	<100.	ug/Kg	100.
1,2,3-Trichloropropane	<50.	ug/Kg	50.
Vinyl Acetate	<1000.	ug/Kg	1000.
Vinyl chloride	<100.	ug/Kg	100.
Xylenes	<10.	ug/Kg	10.
1,1,1,2-Tetrachloroethane	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethane	<50.	ug/Kg	50.

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SAMPLE NO. : 6300447
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 1 OF 2

CLIENT SAMPLE ID : 1C
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 43"-51"
ANALYST .....: I.Hrabovsky

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-26-93
ANALYSIS DATE .: 02-26-96

Method 8260 - Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
Acetone	<100.	ug/Kg	100.
Acrolein	<1000.	ug/Kg	1000.
Acrylonitrile	<1000.	ug/Kg	1000.
Benzene	<50.	ug/Kg	50.
Bromodichloromethane	<100.	ug/Kg	100.
Bromoform	<100.	ug/Kg	100.
Bromomethane	<100.	ug/Kg	100.
Carbon Disulfide	<10.	ug/Kg	10.
Carbon tetrachloride	<50.	ug/Kg	50.
Chlorobenzene	<50.	ug/Kg	50.
Dibromochloromethane	<100.	ug/Kg	100.
Chloroethane	<100.	ug/Kg	100.
Chloroform	<50.	ug/Kg	50.
Chloromethane	<100.	ug/Kg	100.
3-Chloropropene	<100.	ug/Kg	100.
1,2-Dibromo-3-chloropropane	<50.	ug/Kg	50.
1,2Dibromoethane	<100.	ug/Kg	100.
Dibromomethane	<250.	ug/Kg	250.
trans-1,4-Dichloro-2-Butene	<100.	ug/Kg	100.
Dichlorodifluoromethane	<250.	ug/Kg	250.
1,1-Dichloroethane	<50.	ug/Kg	50.
1,2-Dichloroethane	<50.	ug/Kg	50.
1,1-Dichloroethene	<50.	ug/Kg	50.
trans 1,2-Dichloroethene	<50.	ug/Kg	50.
Dichloromethane	<50.	ug/Kg	50.
1,2-Dichloropropane	<50.	ug/Kg	50.
Chloroethylvinyl Ether	<50.	ug/Kg	50.
Cis 1,3-Dichloropropylene	<50.	ug/Kg	50.
1,4-Dioxane	<200.	ug/Kg	200.
Ethylbenzene	<50.	ug/Kg	50.

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SAMPLE NO. : 6300447
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 2 OF 2

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide	<500.	ug/Kg	500.
Ethylmethacrylate	<1000.	ug/Kg	1000.
2-Hexanone	<100.	ug/Kg	100.
Iodomethane (Methyliodide)	<100.	ug/Kg	100.
Isobutyl alcohol	<100.	ug/Kg	100.
Methacrylonitrile	<500.	ug/Kg	500.
Methyl ethyl ketone	<100.	ug/Kg	100.
Methyl Methacrylate	<500.	ug/Kg	500.
Methyl isobutyl ketone	<100.	ug/Kg	100.
Styrene	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethene	<50.	ug/Kg	50.
Toluene	<50.	ug/Kg	50.
1,1,1-Trichloroethane	<50.	ug/Kg	50.
1,1,2-Trichloroethane	<50.	ug/Kg	50.
Trichloroethene	<50.	ug/Kg	50.
Trichlorofluoromethane	<100.	ug/Kg	100.
1,2,3-Trichloropropane	<50.	ug/Kg	50.
Vinyl Acetate	<1000.	ug/Kg	1000.
Vinyl chloride	<100.	ug/Kg	100.
Xylenes	<10.	ug/Kg	10.
1,1,1,2-Tetrachloroethane	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethane	<50.	ug/Kg	50.

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SAMPLE NO. : 6300448
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY: AAI
PAGE : 1 OF 2

CLIENT SAMPLE ID : 2C
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 70"-78"
ANALYST .....: I.Hrabovsky

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : ---
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-26-93
ANALYSIS DATE .: 02-26-93

Method 8260 - Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
Acetone	<100.	ug/Kg	100.
Acrolein	<1000.	ug/Kg	1000.
Acrylonitrile	<1000.	ug/Kg	1000.
Benzene	<50.	ug/Kg	50.
Bromodichloromethane	<100.	ug/Kg	100.
Bromoform	<100.	ug/Kg	100.
Bromomethane	<100.	ug/Kg	100.
Carbon Disulfide	<10.	ug/Kg	10.
Carbon tetrachloride	<50.	ug/Kg	50.
Chlorobenzene	<50.	ug/Kg	50.
Dibromochloromethane	<100.	ug/Kg	100.
Chloroethane	<100.	ug/Kg	100.
Chloroform	<50.	ug/Kg	50.
Chloromethane	<100.	ug/Kg	100.
3-Chloropropene	<100.	ug/Kg	100.
1,2-Dibromo-3-chloropropane	<50.	ug/Kg	50.
1,2Dibromoethane	<100.	ug/Kg	100.
Dibromomethane	<250.	ug/Kg	250.
trans-1,4-Dichloro-2-Butene	<100.	ug/Kg	100.
Dichlorodifluoromethane	<250.	ug/Kg	250.
1,1-Dichloroethane	<50.	ug/Kg	50.
1,2-Dichloroethane	<50.	ug/Kg	50.
1,1-Dichloroethene	<50.	ug/Kg	50.
trans 1,2-Dichloroethene	<50.	ug/Kg	50.
Dichloromethane	<50.	ug/Kg	50.
1,2-Dichloropropane	<50.	ug/Kg	50.
Chloroethylvinyl Ether	<50.	ug/Kg	50.
Cis 1,3-Dichloropropylene	<50.	ug/Kg	50.
1,4-Dioxane	<200.	ug/Kg	200.
Ethylbenzene	<50.	ug/Kg	50.

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SAMPLE NO. : 6300448
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide	<500.	ug/Kg	500.
Ethylmethacrylate	<1000.	ug/Kg	1000.
2-Hexanone	<100.	ug/Kg	100.
Iodomethane (Methyliodide)	<100.	ug/Kg	100.
Isobutyl alcohol	<100.	ug/Kg	100.
Methacrylonitrile	<500.	ug/Kg	500.
Methyl ethyl ketone	<100.	ug/Kg	100.
Methyl Methacrylate	<500.	ug/Kg	500.
Methyl isobutyl ketone	<100.	ug/Kg	100.
Styrene	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethene	<50.	ug/Kg	50.
Toluene	<50.	ug/Kg	50.
1,1,1-Trichloroethane	<50.	ug/Kg	50.
1,1,2-Trichloroethane	<50.	ug/Kg	50.
Trichloroethene	<50.	ug/Kg	50.
Trichlorofluoromethane	<100.	ug/Kg	100.
1,2,3-Trichloropropane	<50.	ug/Kg	50.
Vinyl Acetate	<1000.	ug/Kg	1000.
Vinyl chloride	<100.	ug/Kg	100.
Xylenes	<10.	ug/Kg	10.
1,1,1,2-Tetrachloroethane	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethane	<50.	ug/Kg	50.

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SAMPLE NO. : 6300443
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 1 OF 2

CLIENT SAMPLE ID : 1A
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 42"-50"
ANALYST .....: I.Hrabovsky

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-26-93
ANALYSIS DATE .: 02-26-93

Method 8260 - Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
cetone	<100.	ug/Kg	100.
Acrolein	<1000.	ug/Kg	1000.
Acrylonitrile	<1000.	ug/Kg	1000.
Benzene	<50.	ug/Kg	50.
Bromodichloromethane	<100.	ug/Kg	100.
Bromoform	<100.	ug/Kg	100.
Bromomethane	<100.	ug/Kg	100.
Carbon Disulfide	<10.	ug/Kg	10.
Carbon tetrachloride	<50.	ug/Kg	50.
Chlorobenzene	<50.	ug/Kg	50.
Dibromochloromethane	<100.	ug/Kg	100.
Chloroethane	<100.	ug/Kg	100.
Chloroform	<50.	ug/Kg	50.
Chloromethane	<100.	ug/Kg	100.
3-Chloropropene	<100.	ug/Kg	100.
1,2-Dibromo-3-chloropropane	<50.	ug/Kg	50.
1,2Dibromoethane	<100.	ug/Kg	100.
Dibromomethane	<250.	ug/Kg	250.
trans-1,4-Dichloro-2-Butene	<100.	ug/Kg	100.
Dichlorodifluoromethane	<250.	ug/Kg	250.
1,1-Dichloroethane	<50.	ug/Kg	50.
1,2-Dichloroethane	<50.	ug/Kg	50.
1,1-Dichloroethene	<50.	ug/Kg	50.
trans 1,2-Dichloroethene	<50.	ug/Kg	50.
chloromethane	<50.	ug/Kg	50.
2-Dichloropropane	<50.	ug/Kg	50.
hloroethylvinyl Ether	<50.	ug/Kg	50.
Cis 1,3-Dichloropropylene	<50.	ug/Kg	50.
1,4-Dioxane	<200.	ug/Kg	200.
Ethylbenzene	<50.	ug/Kg	50.

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SAMPLE NO. : 6300443
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY: ✓✓✓
PAGE : 2 OF 2

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide	<500.	ug/Kg	500.
Ethylmethacrylate	<1000.	ug/Kg	1000.
2-Hexanone	<100.	ug/Kg	100.
Iodomethane (Methyliodide)	<100.	ug/Kg	100.
Isobutyl alcohol	<100.	ug/Kg	100.
Methacrylonitrile	<500.	ug/Kg	500.
Methyl ethyl ketone	<100.	ug/Kg	100.
Methyl Methacrylate	<500.	ug/Kg	500.
Methyl isobutyl ketone	<100.	ug/Kg	100.
Styrene	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethene	<50.	ug/Kg	50.
Toluene	<50.	ug/Kg	50.
1,1,1-Trichloroethane	<50.	ug/Kg	50.
1,1,2-Trichloroethane	<50.	ug/Kg	50.
Trichloroethene	<50.	ug/Kg	50.
Trichlorofluoromethane	<100.	ug/Kg	100.
1,2,3-Trichloropropane	<50.	ug/Kg	50.
Vinyl Acetate	<1000.	ug/Kg	1000.
Vinyl chloride	<100.	ug/Kg	100.
Xylenes	<10.	ug/Kg	10.
1,1,1,2-Tetrachloroethane	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethane	<50.	ug/Kg	50.

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CLIENT Advanced Sciences Inc.
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Las Cruces, NM 88001

SAMPLE NO. : 6300444
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY: [illegible]
PAGE : 1 OF 2

CLIENT SAMPLE ID : 2A
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 77"-81"
ANALYST .....: I.Hrabovsky

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-26-93
ANALYSIS DATE .: 02-26-93

Method 8260 - Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
Acetone	<100.	ug/Kg	100.
Acrolein	<1000.	ug/Kg	1000.
Acrylonitrile	<1000.	ug/Kg	1000.
Benzene	<50.	ug/Kg	50.
Bromodichloromethane	<100.	ug/Kg	100.
Bromoform	<100.	ug/Kg	100.
Bromomethane	<100.	ug/Kg	100.
Carbon Disulfide	<10.	ug/Kg	10.
Carbon tetrachloride	<50.	ug/Kg	50.
Chlorobenzene	<50.	ug/Kg	50.
Dibromochloromethane	<100.	ug/Kg	100.
Chloroethane	<100.	ug/Kg	100.
Chloroform	<50.	ug/Kg	50.
Chloromethane	<100.	ug/Kg	100.
3-Chloropropene	<100.	ug/Kg	100.
1,2-Dibromo-3-chloropropane	<50.	ug/Kg	50.
1,2Dibromoethane	<100.	ug/Kg	100.
Dibromomethane	<250.	ug/Kg	250.
trans-1,4-Dichloro-2-Butene	<100.	ug/Kg	100.
Dichlorodifluoromethane	<250.	ug/Kg	250.
1,1-Dichloroethane	<50.	ug/Kg	50.
1,2-Dichloroethane	<50.	ug/Kg	50.
1,1-Dichloroethene	<50.	ug/Kg	50.
trans 1,2-Dichloroethene	<50.	ug/Kg	50.
[illegible]chloromethane	<50.	ug/Kg	50.
[illegible]2-Dichloropropane	<50.	ug/Kg	50.
[illegible]hloroethylvinyl Ether	<50.	ug/Kg	50.
Cis 1,3-Dichloropropylene	<50.	ug/Kg	50.
1,4-Dioxane	<200.	ug/Kg	200.
Ethylbenzene	<50.	ug/Kg	50.

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SAMPLE NO. : 6300444
INVOICE NO.: 62130107
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PAGE : 2 OF 2

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide ..... :	<500.	ug/Kg	500.
Ethylmethacrylate ..... :	<1000.	ug/Kg	1000.
2-Hexanone ..... :	<100.	ug/Kg	100.
Iodomethane (Methyliodide) ..... :	<100.	ug/Kg	100.
Isobutyl alcohol ..... :	<100.	ug/Kg	100.
Methacrylonitrile ..... :	<500.	ug/Kg	500.
Methyl ethyl ketone ..... :	<100.	ug/Kg	100.
Methyl Methacrylate ..... :	<500.	ug/Kg	500.
Methyl isobutyl ketone ..... :	<100.	ug/Kg	100.
Styrene ..... :	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethene ..... :	<50.	ug/Kg	50.
Toluene ..... :	<50.	ug/Kg	50.
1,1,1-Trichloroethane ..... :	<50.	ug/Kg	50.
1,1,2-Trichloroethane ..... :	<50.	ug/Kg	50.
Trichloroethene ..... :	<50.	ug/Kg	50.
Trichlorofluoromethane ..... :	<100.	ug/Kg	100.
1,2,3-Trichloropropane ..... :	<50.	ug/Kg	50.
Vinyl Acetate ..... :	<1000.	ug/Kg	1000.
Vinyl chloride ..... :	<100.	ug/Kg	100.
Xylenes ..... :	<10.	ug/Kg	10.
1,1,1,2-Tetrachloroethane ..... :	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethane ..... :	<50.	ug/Kg	50.

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SAMPLE NO. : 6300445
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 2 OF 2

DATA TABLE (Cont.)

Parameter	Result	Unit	Detection Limit
Ethyl Cyanide ..... :	<500.	ug/Kg	500.
Ethylmethacrylate ..... :	<1000.	ug/Kg	1000.
2-Hexanone ..... :	<100.	ug/Kg	100.
Iodomethane (Methyliodide) ..... :	<100.	ug/Kg	100.
Isobutyl alcohol ..... :	<100.	ug/Kg	100.
Methacrylonitrile ..... :	<500.	ug/Kg	500.
Methyl ethyl ketone ..... :	<100.	ug/Kg	100.
Methyl Methacrylate ..... :	<500.	ug/Kg	500.
Methyl isobutyl ketone ..... :	<100.	ug/Kg	100.
Styrene ..... :	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethene ..... :	<50.	ug/Kg	50.
Toluene ..... :	<50.	ug/Kg	50.
1,1,1-Trichloroethane ..... :	<50.	ug/Kg	50.
1,1,2-Trichloroethane ..... :	<50.	ug/Kg	50.
Trichloroethene ..... :	<50.	ug/Kg	50.
Trichlorofluoromethane ..... :	<100.	ug/Kg	100.
1,2,3-Trichloropropane ..... :	<50.	ug/Kg	50.
Vinyl Acetate ..... :	<1000.	ug/Kg	1000.
Vinyl chloride ..... :	<100.	ug/Kg	100.
Xylenes ..... :	<10.	ug/Kg	10.
1,1,1,2-Tetrachloroethane ..... :	<50.	ug/Kg	50.
1,1,2,2-Tetrachloroethane ..... :	<50.	ug/Kg	50.

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SAMPLE NO. : 6300445
INVOICE NO.: 62130107
REPORT DATE: 02-23-93
REVIEWED BY:
PAGE : 1 OF 2

CLIENT SAMPLE ID : 1B
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Joel Giblin
SUBMITTED BY ....: George Esqueda
SAMPLE SOURCE ...: 35"-42"
ANALYST .....: I.Hrabovsky

AUTHORIZED BY : Joel Giblin
CLIENT P.O. : --
SAMPLE DATE ...: 02-09-93
SUBMITTAL DATE : 02-11-93
EXTRACTION DATE: 02-26-93
ANALYSIS DATE .: 02-26-93

Method 8260 - Volatile Organics
Appendix IX Compounds

DATA TABLE

Parameter	Result	Unit	Detection Limit
cetone	<100.	ug/Kg	100.
crolein	<1000.	ug/Kg	1000.
Acrylonitrile	<1000.	ug/Kg	1000.
Benzene	<50.	ug/Kg	50.
Bromodichloromethane	<100.	ug/Kg	100.
Bromoform	<100.	ug/Kg	100.
Bromomethane	<100.	ug/Kg	100.
Carbon Disulfide	<10.	ug/Kg	10.
Carbon tetrachloride	<50.	ug/Kg	50.
Chlorobenzene	<50.	ug/Kg	50.
Dibromochloromethane	<100.	ug/Kg	100.
Chloroethane	<100.	ug/Kg	100.
Chloroform	<50.	ug/Kg	50.
Chloromethane	<100.	ug/Kg	100.
3-Chloropropene	<100.	ug/Kg	100.
1,2-Dibromo-3-chloropropane	<50.	ug/Kg	50.
1,2Dibromoethane	<100.	ug/Kg	100.
Dibromomethane	<250.	ug/Kg	250.
trans-1,4-Dichloro-2-Butene	<100.	ug/Kg	100.
Dichlorodifluoromethane	<250.	ug/Kg	250.
1,1-Dichloroethane	<50.	ug/Kg	50.
1,2-Dichloroethane	<50.	ug/Kg	50.
1,1-Dichloroethene	<50.	ug/Kg	50.
trans 1,2-Dichloroethene	<50.	ug/Kg	50.
Dichloromethane	<50.	ug/Kg	50.
1,2-Dichloropropane	<50.	ug/Kg	50.
hloroethylvinyl Ether	<50.	ug/Kg	50.
is 1,3-Dichloropropylene	<50.	ug/Kg	50.
1,4-Dioxane	<200.	ug/Kg	200.
Ethylbenzene	<50.	ug/Kg	50.

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Las Cruces, NM 88001

SAMPLE NO. : 6202702
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #1 0"-6"
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-13-92
ANALYSIS DATE .: 10-15-92

Organic TCLP Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Benzene	<0.5	mg/L	0.5
Carbon tetrachloride	<0.5	mg/L	0.5
Chlorobenzene	<100.	mg/L	100.
Chloroform	<6.0	mg/L	6.0
1,2-Dichloroethane	<0.5	mg/L	0.5
1,1-Dichloroethylene	<0.7	mg/L	0.7
Methyl ethyl ketone	<200.	mg/L	200.
Tetrachloroethylene	<0.7	mg/L	0.7
Trichloroethylene	1.6	mg/L	0.5
Vinyl Chloride	<0.2	mg/L	0.2

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SAMPLE NO. : 6202703
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #1 30"-36"
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-13-92
ANALYSIS DATE .: 10-15-92

Organic TCLP Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Benzene	<0.5	mg/L	0.5
Carbon tetrachloride	<0.5	mg/L	0.5
Chlorobenzene	<100.	mg/L	100.
Chloroform	<6.0	mg/L	6.0
1,2-Dichloroethane	<0.5	mg/L	0.5
1,1-Dichloroethylene	<0.7	mg/L	0.7
Methyl ethyl ketone	<200.	mg/L	200.
Tetrachloroethylene	<0.7	mg/L	0.7
Trichloroethylene	1.3	mg/L	0.5
Vinyl Chloride	<0.2	mg/L	0.2

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CLIENT Advanced Sciences Inc.
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Las Cruces, NM 88001

SAMPLE NO. : 6202704
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #2 0"- 6"
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-14-92
ANALYSIS DATE .: 10-15-92

Organic TCLP Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Benzene	<0.5	mg/L	0.5
Carbon tetrachloride	<0.5	mg/L	0.5
Chlorobenzene	<100.	mg/L	100.
Chloroform	<6.0	mg/L	6.0
1,2-Dichloroethane	<0.5	mg/L	0.5
1,1-Dichloroethylene	<0.7	mg/L	0.7
Methyl ethyl ketone	<200.	mg/L	200.
Tetrachloroethylene	<0.7	mg/L	0.7
Trichloroethylene	<0.5	mg/L	0.5
Vinyl Chloride	<0.2	mg/L	0.2

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Las Cruces, NM 88001

SAMPLE NO. : 6202705
INVOICE NO.: 62120822
REPORT DATE: 10-26-92
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : ASI-Evap Tank
SAMPLE TYPE .....: Soil
SAMPLED BY .....: Tony Taylor
SUBMITTED BY ....: Tony Taylor
SAMPLE SOURCE ...: Site #2 30"-36"
ANALYST .....: I. Hrabovsky

AUTHORIZED BY : Tony Taylor
CLIENT P.O. : 9967.40.09
SAMPLE DATE ...: 10-09-92
SUBMITTAL DATE : 10-09-92
EXTRACTION DATE: 10-14-92
ANALYSIS DATE .: 10-15-92

Organic TCLP Volatiles

DATA TABLE

Parameter	Result	Unit	Detection Limit
Benzene	<0.5	mg/L	0.5
Carbon tetrachloride	<0.5	mg/L	0.5
Chlorobenzene	<100.	mg/L	100.
Chloroform	<6.0	mg/L	6.0
1,2-Dichloroethane	<0.5	mg/L	0.5
1,1-Dichloroethylene	<0.7	mg/L	0.7
Methyl ethyl ketone	<200.	mg/L	200.
Tetrachloroethylene	<0.7	mg/L	0.7
Trichloroethylene	1.0	mg/L	0.5
Vinyl Chloride	<0.2	mg/L	0.2

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Appendix D

Decontamination Water Rinsate Results

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CHAIN OF CUSTODY RECORD

Page 1 of 1

CLIENT: ASI	ADDRESS: 5 ASI
CONTACT PERSON: Kelly L Clough	[illegible] Tekhor [illegible] 210 L.C. Mill. [illegible]
TELEPHONE: (505) 522-7221	PROJECT: HWSF EVAP TANK / JOB / P.O. NO.
FAX: (505) 522-7019	WESTECH QUOTE / CONTRACT NO:

• SEE FEE SCHEDULE •

SAMPLER (SIGNATURE): George Esquerda
(PRINT NAME): George Esquerda

SAMPLE TYPE CODES: S - SOIL, O - OIL, G - SLUDGE, D - DRINKING WATER, W - WASTEWATER, T - TRAVEL BLANK, F - FIELD BLANK, X - OTHER (SPECIFY): ____

SAMPLE / COOLER TEMPERATURE:

SAMPLE IDENTIFICATION	DATE	TIME	SAMPLE LOCATION	NO. CONTAINERS	COMPOSITE	GRAB	SAMPLE TYPE	Unpreserved	HNO_3	NaOH	H_2SO_4	HCl	(Do Not Analyze) HOLD	Metals	EPA 601 - Volatile	Haz. Waste Characteristic	COMMENTS	LABORATORY IDENTIFICATION
DEC #1	2/14/95	14:[illegible]	HWSF EVAP TANK	1		1	W	✓						✓	✓	✓		
DEC #2	2/14/95	14:10	HWSF EVAP TANK	1		1	W	✓						✓	✓	✓		
DEC #3	2/14/95	14:[illegible]	HWSF EVAP TANK	1		1	W	✓						✓	✓	✓		
DEC #4	2/14/95	14:47	HWSF EVAP TANK	1		1	W	✓						✓	✓	✓	Please analyze all samples for: Metals, Semi-Volatiles, Volatiles, and Haz. waste characteristic	

RELINQUISHED BY (SIGNATURE)	PRINT NAME	RECEIVED BY (SIGNATURE)	PRINT NAME	DATE / TIME
George Esquerda	George Esquerda	[illegible]	J.E. Gomez	[illegible]

REMARKS

☐ Fax Results ☐ Special Detection Limits / Requirements

SAMPLE PROCESS TURNAROUND TIME:
☐ Standard ☐ Other (specify) ____

623 ©94 WTI White – Laboratory; Yellow – Work File; Pink – Client

STEWS-MTD-AA (70-10r) 17 FEB 1995

MEMORANDUM FOR DES-E, ATTN: Mr. Magallanes

SUBJECT: Water Analysis

1. In response to your verbal request, the Applied Environments Test Branch (MTD-AA) Chemistry Laboratory analyzed four samples of decontamination water from the Hazardous Waste Storage Facility for the presence of metals and halogenated volatile organic compounds and for their corrosivity.

2. Results. The results appear in Table 1, Encl 1.

3. The samples were obtained by Advanced Sciences, Inc. personnel and were delivered to the laboratory on 14 Feb 95. The analyses were completed on 15 Feb 95.

4. Point of contact is Dr. Joseph E. Gomez, 678-2992.

ANDRUS GARAY
Chief, Applied Envr Test Branch

Encl
as

TABLE 1

A. Volatile Halogenated Organic Compounds

Identification	Concentration, parts per million TFF(1)	DCM(2)	TCA(3)	TCE(4)	PCE(5)
DEC #1, HWSF	ND	ND	ND	ND	ND
DEC #2, HWSF	ND	ND	ND	ND	ND
DEC #3, HWSF	ND	ND	ND	ND	ND
DEC #4, HWSF	ND	ND	ND	ND	ND
Detection Limit	0.01	0.05	0.05	0.01	0.01

(1) TFF = Freon 113
(2) DCM = Methylene Chloride
(3) TCA = 1,1,1-Trichloroethane
(4) TCE = Trichloroethylene
(5) PCE = Perchloroethylene
ND = None Detected

B. Metals

Identification	Concentration, parts per million Cr(1)	Ag(2)	Cd(3)	Pb(4)	As(5)	Ba(6)
DEC #1, HWSF	ND	ND	ND	ND	ND	ND
DEC #2, HWSF	ND	ND	ND	ND	ND	ND
DEC #3, HWSF	ND	ND	ND	ND	ND	ND
DEC #4, HWSF	ND	ND	ND	ND	ND	ND
Detection Limit	0.05	0.05	0.02	0.10	0.5	1

(1) Cr = Chromium
(2) Ag = Silver
(3) Cd = Cadmium
(4) Pb = Lead
(5) As = Arsenic
(6) Ba = Barium
ND = None Detected

C. Corrosivity

Identification	pH
DEC #1, HWSF	11.5
DEC #2, HWSF	11.3
DEC #3, HWSF	9.4
DEC #4, HWSF	8.1

Appendix E

Decontamination Water Source Results

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Analytical results from the analysis of the source of equipment decontamination water are not yet available.

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APPENDIX D

Revision to the 3 December 1993 Sampling and Analysis Plan
for the Clean Closure of the Hazardous Waste Storage Facility Evaporation Tank
dated June 2001

MODIFICATION TO THE APPROVED CLEAN CLOSURE PLAN FOR THE HAZARDOUS WASTE STORAGE FACILITY EVAPORATION TANK (SWMU NUMBER 90/DSERTS NUMBER 35)

Revision 1

Submitted to:

U.S. Army
White Sands Missile Range
Environment and Safety Directorate
White Sands Missile Range, New Mexico 88002-5048

June 2001

Submitted by:

MEVATEC Corporation
Building 126
White Sands Missile Range, New Mexico 88002

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APPENDIX E HEALTH AND SAFETY PLAN

APPENDIX F QUALITY ASSURANCE / QUALITY CONTROL (QA/QC) PLAN

LIST OF ACRONYMS

A2LA	American Association for Laboratory Accreditation
CAS RN	Chemical Abstracts Service Registry Number
COE	(U.S. Army) Corps of Engineers
CFR	Code of Federal Regulations
°C	degrees Fahrenheit
°F	degrees Celsius
EPA	(United States) Environmental Protection Agency
ft	foot, feet
ft/d	feet per day
GC	gas chromatograph
HRMB	(New Mexico Environment Department) Hazardous and Radioactive Materials Bureau
HSWA	Hazardous and Solid Wastes Amendments
HWB	(New Mexico Environment Department) Hazardous Waste Bureau
HWLF	Hazardous Waste Landfill
HWSF	Hazardous Waste Storage Facility
in	inch, inches
in/hr	inches per hour
in/yr	inches per year
m	meter, meters
µg/L	micrograms per liter
mg/L	milligrams per liter
mi	mile
mi2	square mile
mi/hr	miles per hour
MSL	mean sea level
NaOH	sodium hydroxide
NMED	New Mexico Environment Department
oz	ounce
PID	photo-ionization detector
PQL	Practical Quantitation Limit
PVC	polyvinyl chloride
QA/QC	Quality Assurance / Quality Control
RCRA	Resource Conservation and Recovery Act
Ref.	reference
SWMU	Solid Waste Management Unit
TCE	Trichloroethylene (also known as Trichloroethene)
TCLP	Toxicity Characteristics Leaching Procedure
T&E	threatened and endangered
TSDF	transport/storage/disposal facility
TW	test well
VOC	Volatile Organic Compound
White Sands	White Sands Missile Range
WQCC	(New Mexico) Water Quality Control Commission

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MODIFICATION TO THE APPROVED CLEAN CLOSURE PLAN FOR THE HAZARDOUS WASTE STORAGE FACILITY EVAPORATION TANK (SWMU NUMBER 90/DSERTS NUMBER 35)

1.0 INTRODUCTION

An evaporation tank located at the Hazardous Waste Storage Facility (HWSF), White Sands Missile Range (White Sands) was removed and properly disposed in 1994 (Figures 1-1 and 1-2). The HWSF evaporation tank is identified in Module VIII [Hazardous and Solid Wastes Amendments (HSWA) Corrective Action] of the Resource Conservation Recovery Act (RCRA) Part B Permit for White Sands as Solid Waste Management Unit (SWMU) 90. The evaporation tank was constructed of reinforced concrete and consisted of an inner and outer tank. The unit was used as an evaporation basin for waste photographic solutions. Following evaporation, the remaining sludge was drummed and disposed in the White Sands Hazardous Waste Landfill (SWMU 91). All material disposed in the Hazardous Waste Landfill was excavated and disposed at an approved hazardous waste disposal facility in 1990. There is no documentation logging the quantity of wastes placed in or removed from the evaporation tank.

White Sands began clean closure activities for the evaporation tank in 1992. Soil samples collected from beneath the evaporation tank concrete floor identified elevated levels of trichloroethylene (TCE), also known as trichloroethene. The TCE concentrations were identified within leachate extracted during the Toxicity Characteristic Leaching Procedure (TCLP) [United States Environmental Protection Agency (EPA) Method 1311/8240). TCE concentrations ranged from below laboratory detection limits to 1.6 mg/L (Ref. 2). White Sands applied for clean closure of the site and was subsequently denied by the State of New Mexico Environment Department (NMED) Hazardous Waste Bureau (HWB) (then referred to as the Hazardous and Radioactive Materials Bureau (HRMB)) on 31 August 1993 because the soil samples were not analyzed for total concentrations of volatile organic compounds (VOCs), specifically for TCE.

Following denial of clean closure by NMED, White Sands prepared a revised Clean Closure Plan, dated 3 December 1993 (Ref. 5). The Clean Closure Plan contained a Sampling and Analysis Plan that required the completion of twelve additional soil borings and the collection and analysis of soil samples for total concentrations of TCE (EPA Method 8260) and TCLP for VOCs (EPA Method 1311/8260) (Ref.6). However, soil samples collected from this sampling event were only analyzed for TCLP for VOCs. Although no contamination was detected in the TCLP extract, NMED again denied clean closure (Appendix B) of the site because soil samples were not analyzed for total concentrations of TCE, as required in the 3 December 1993 Clean Closure Plan.

Following a meeting in October 1998, NMED granted White Sands the opportunity to prepare a revised Sampling and Analysis Plan to identify the presence or absence of TCE (and its daughter products) in the soil at the site. The following Plan is a revision to the Clean Closure Plan for the Hazardous Waste Evaporation Tank at White Sands Missile Range, dated 3 December 1993.

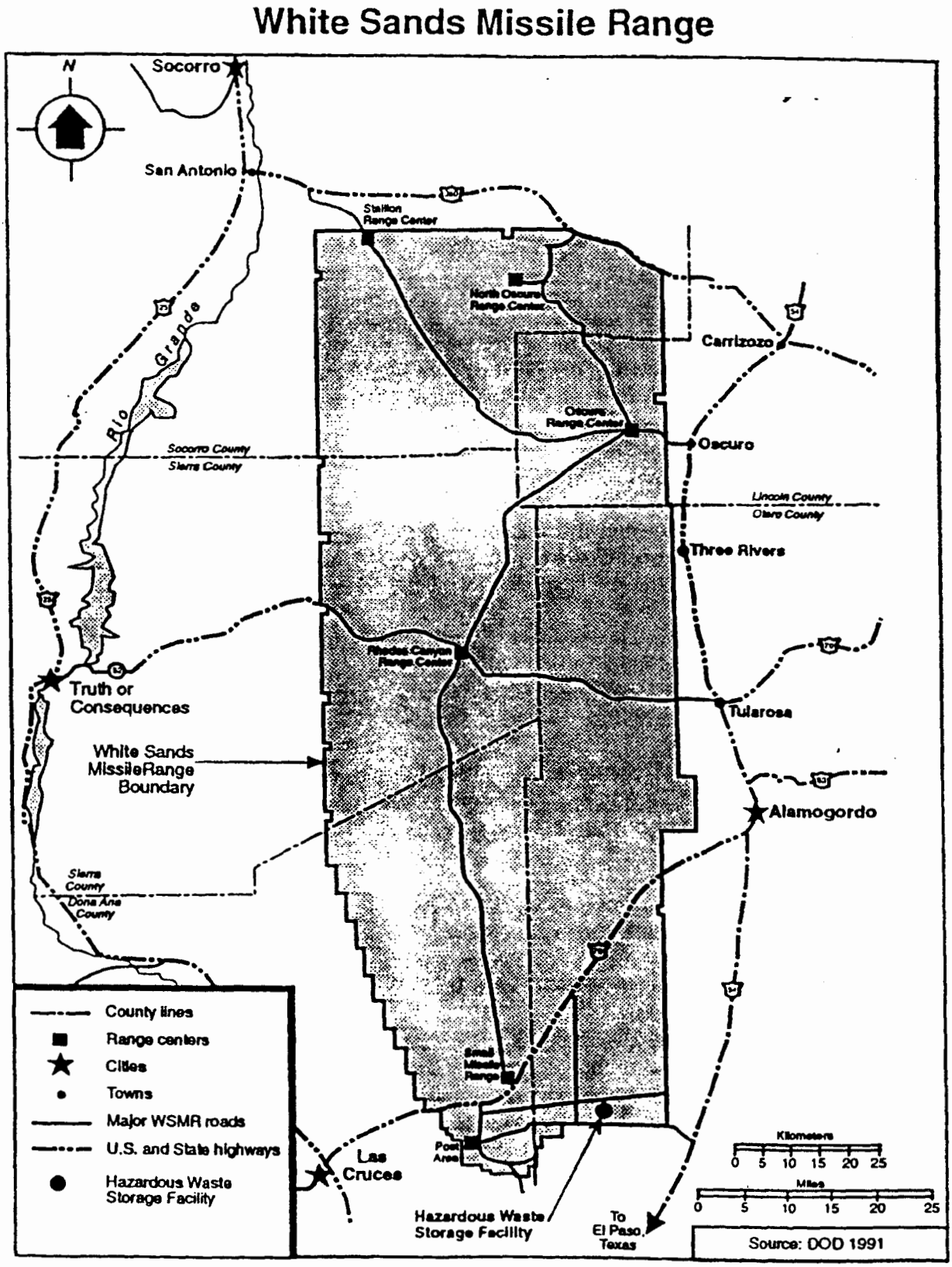


Figure 1-1. Location of the Hazardous Waste Storage Facility.

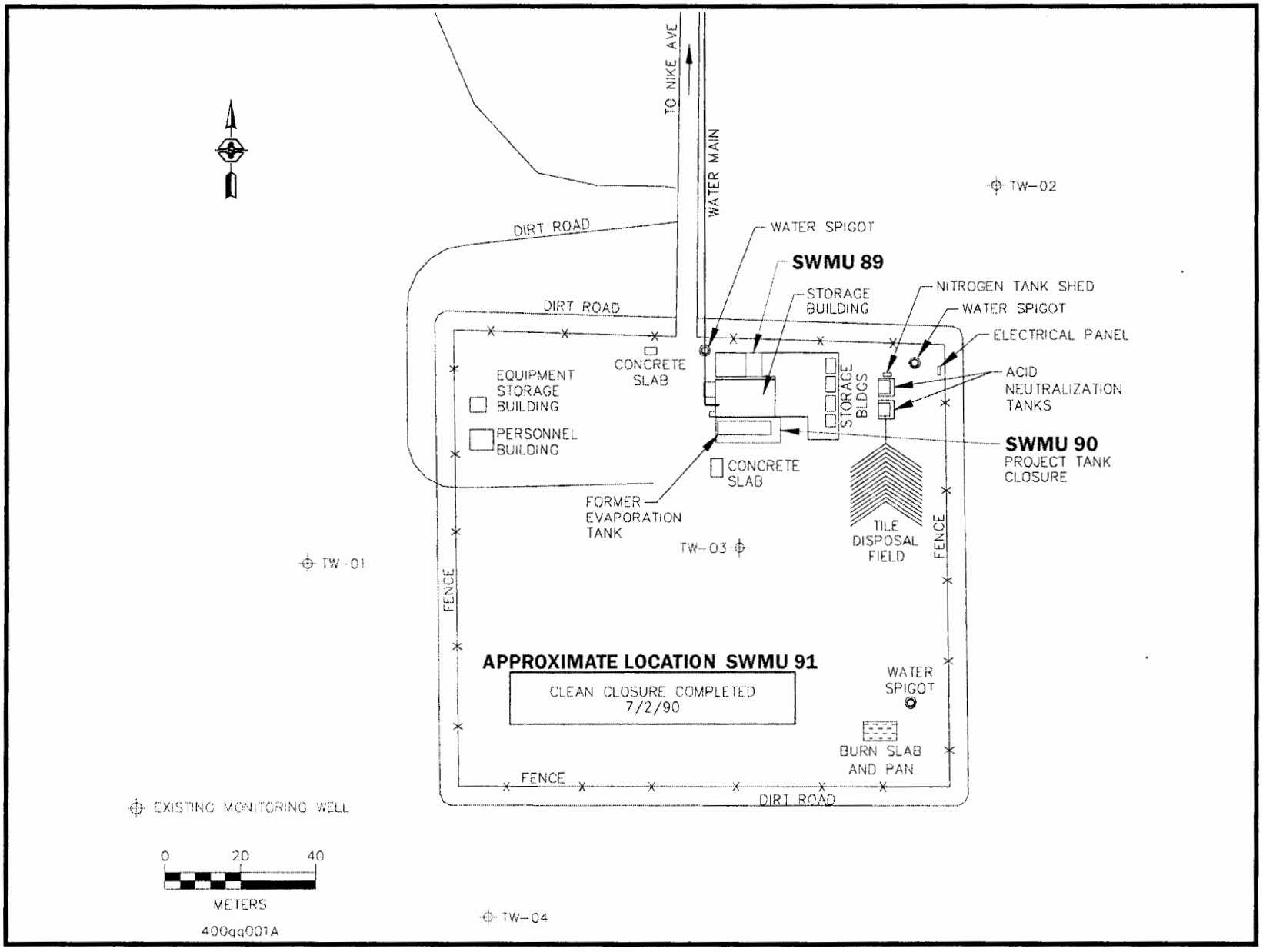


Figure 1-2. Hazardous waste Storage Facility Site Map.

1.1 Description of Evaporation Tank Location

White Sands Missile Range (White Sands) is a large military installation under the responsibility of the Department of the Army. It is a government owned and operated facility that is approximately 25 to 40 miles (mi) wide and 125 mi long, and occupies approximately 3,500 square miles (mi^2) in south-central New Mexico, covering parts of Otero, Lincoln, Doña Ana, Sierra, Socorro, and Torrance counties (Figure 1-1). The Main Post area of White Sands is about 27 mi east-northeast of Las Cruces, New Mexico, and 45 mi north of El Paso, Texas. The White Sands Headquarters is located approximately 30 mi east of Las Cruces, New Mexico, south of New Mexico Highway 70.

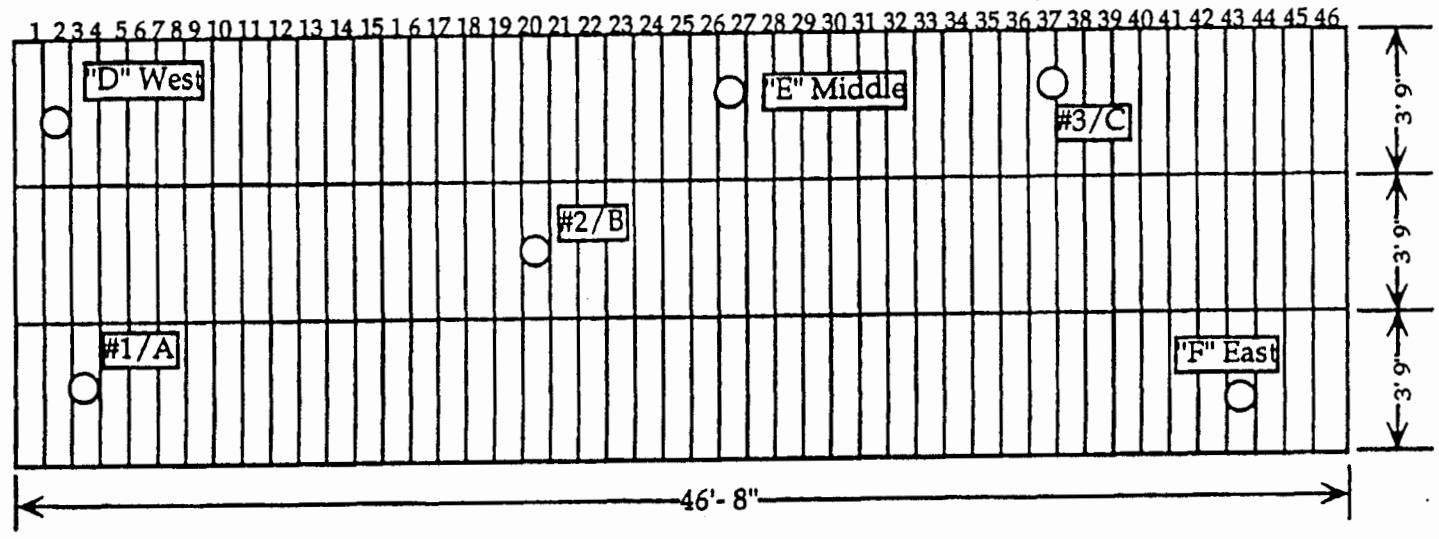
The Evaporation Tank to be closed is located approximately eight mi east of the White Sands headquarters and is contained within the Hazardous Waste Storage Facility (HWSF) (Figure 1-2). The HWSF is located at 32° 23' north latitude and 106° 19' west longitude. The approximate Universal Transverse Mercator location for the HWSF is 3585108.2 north and 374777.8 east.

2.0 PURPOSE AND OBJECTIVES

Since elevated levels (above regulatory limit) of TCE-TCLP have been shown (Figures 2-1 and 2-2) to exist in soils beneath the Evaporation Tank floor, this Plan outlines a proposed investigation strategy that will determine the horizontal and vertical extent of any residual total TCE concentrations and any concentrations of TCE daughter products in the soils. This Plan will consist of two phases. Phase 1 will attempt to verify and delineate the vertical and horizontal extent of any total TCE contaminated soils or groundwater. If total TCE concentrations or concentrations of TCE daughter products are not found which exceed the regulatory limit, the Evaporation Tank area will be judged to be "clean closed". If the Evaporation tank area is "clean closed", appropriate justification of the sampling methodology used in this Plan as compared to the October 1992 and January 1995 sampling methodology will be presented in the Final Report.

However, if the total TCE concentrations or concentrations of TCE daughter products are identified exceeding the regulatory limit at depths of 15 feet (ft) or greater, then White Sands will proceed with Phase 2: cap the Evaporation Tank (see Section 11.0) and proceed with post-closure care (Appendix A). If the Phase 1 sampling results delineate a horizontal and vertical zone of contamination, White Sands will propose to NMED a remediation technology, details of which would depend upon the extent and concentrations of contamination. If the vertical extent of contamination cannot be fully delineated in Phase 1, White Sands will proceed to cap the Evaporation Tank area and proceed into post-closure care. Figure 2-3 presents a decision-tree analysis with an estimated time-line schedule for final closure of the Evaporation Tank. The following are the main components of the Plan:

1. The Evaporation tank's concrete floor was removed in 1994 and disposed in the White Sands Construction Landfill (see Figure 2-4). The Evaporation Tank concrete floor was determined to be non-hazardous (Appendix B).



Previous Coring Locations

TCE - TCLP OCTOBER 1992 RESULTS

Site #1/A, 0"-6" TCE - 1.6 mg/L	Site #2/B, 0"-6" TCE - Non-detect	Site #3/C, 0"-6" TCE - Non-detect
Site #1/A, 30"-36" TCE - 1.30 mg/L	Site #2/B, 30"-36" TCE - 1.0 mg/L	Site #3/C, 30"-36" TCE - 0.53 mg/L

TCE detection limits 0.5 mg/L

Figure 2

9/93

Figure 2-1. Evaporation Tank Sampling Locations.

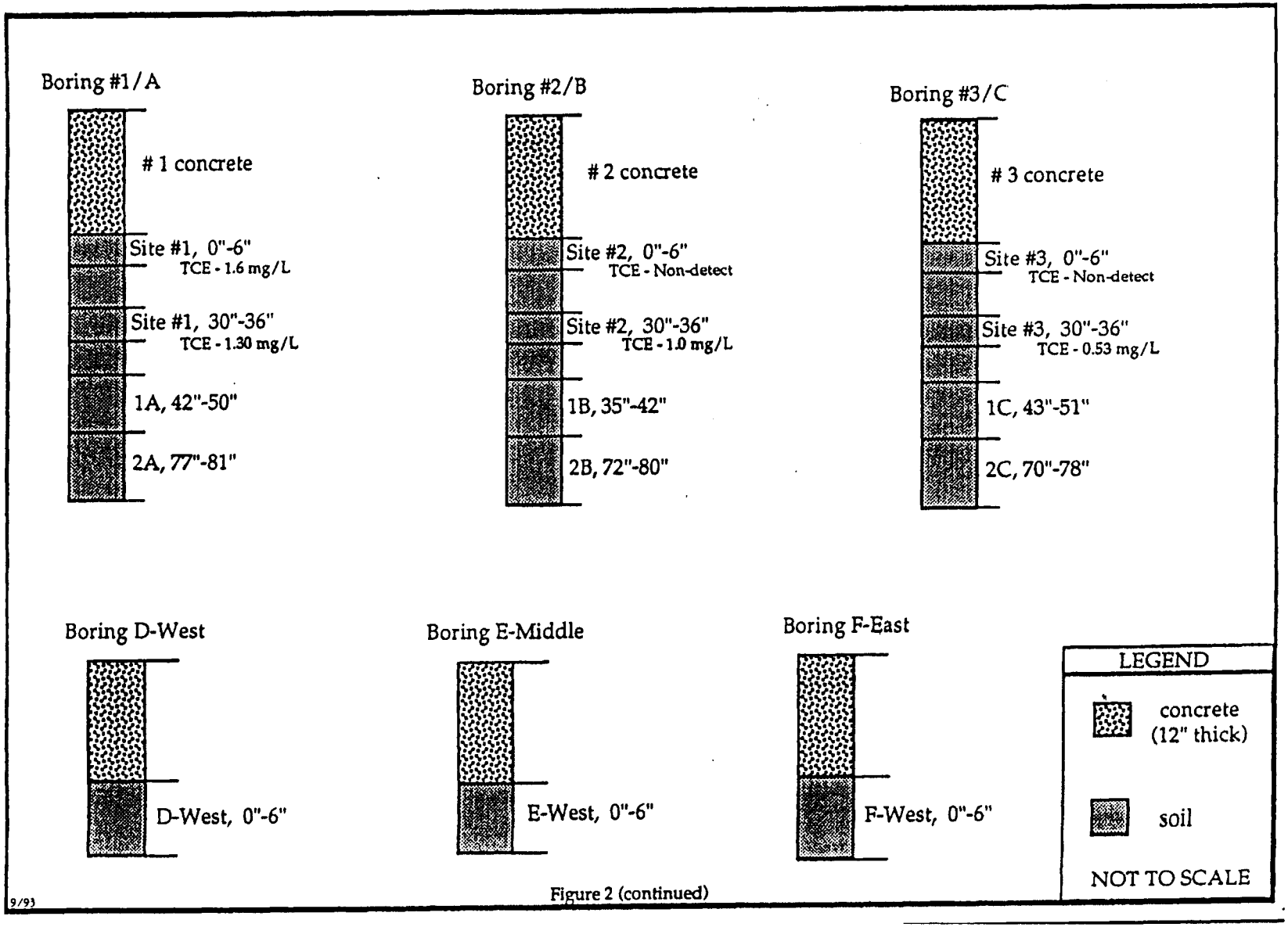
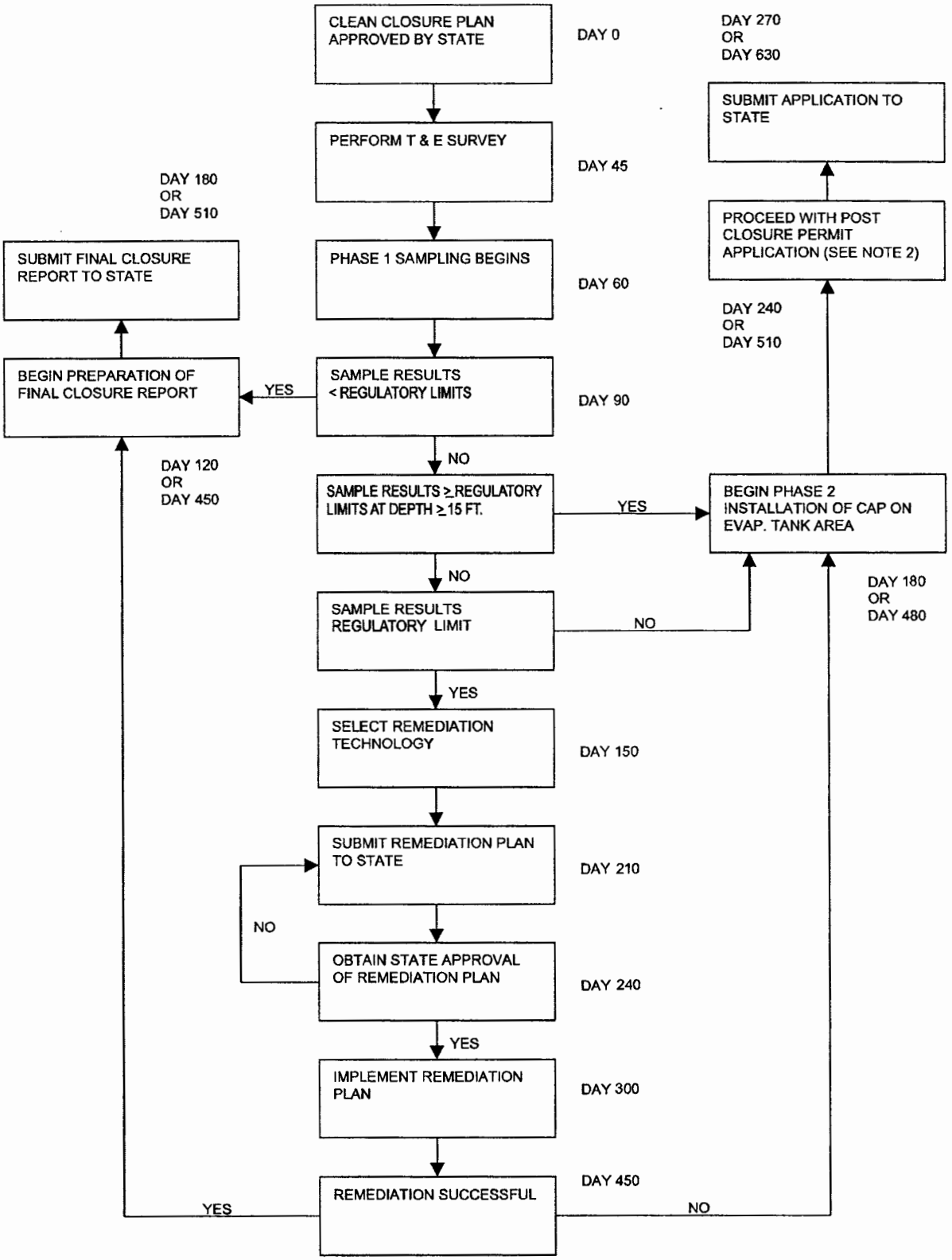


Figure 2 (continued)

Figure 2-2. Previous Boring Logs.



NOTE 1: Quarterly Progress Reports will be submitted to NMED beginning on Day 90 and every 90 days thereafter.

NOTE 2: WSMR may apply for a ground water monitoring waiver, depending upon analytical results.

Figure 2-3. Evaporation Tank Closure, Decision Tree and Time Schedule.

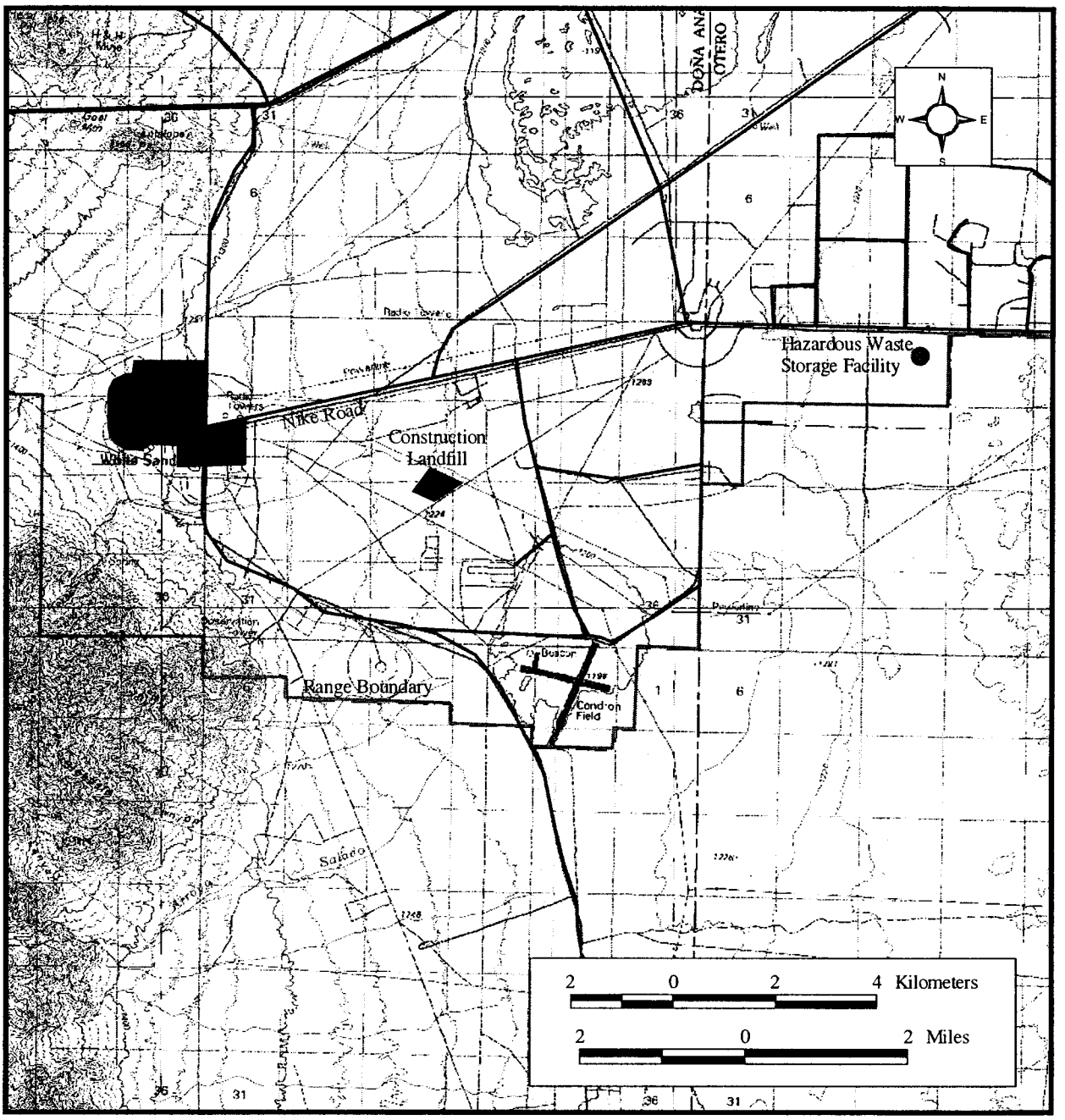


Figure 2-4. Location of the White Sands Construction Landfill.

2. Phase 1 will consist of three sub-phases, 1a, 1b, and 1c. Phase 1a consists of a soil-gas survey, which will act as a screening tool, to determine the presence or absence of VOCs, specifically TCE and TCE daughter products, within the soil beneath and immediately surrounding the former evaporation tank. Phase 1b consists of completing up to twelve soil borings to delineate the horizontal and vertical extent of contamination. Based on the results of the Phase 1a soil gas survey, the Phase 1b soil borings will be strategically placed to determine the extent of soil contamination. If Phase 1a does not identify contamination, Phase 1b will be used to obtain soil samples for confirmatory analysis. As part of Phase 1b, depth-specific soil samples will be collected within each boring and analyzed by two

laboratories for total TCE concentrations and concentrations of TCE daughter products (EPA Method 8260B). Additionally, White Sands will complete Phase 1c, which consists of sampling existing groundwater test wells (TW) located at the HWSF for contaminants of concern.

3. Primary and Quality Assurance samples, collected following procedures in SW-846 (Ref 3), will be sent to two separate A2LA or Corps of Engineers (COE) certified laboratories and analyzed for identical contaminants of concern.

4. In the event that total TCE concentrations concentrations or concentrations of TCE daughter products in the soil or groundwater are detected at or exceed the regulatory limit, or if the vertical extent of contamination cannot be fully defined in the Phase 1 sampling survey or cannot be remediated, then the Evaporation Tank area will be capped (as discussed in Section 11.0) to cover the soils beneath the Evaporation Tank.

5. In the event that post-closure care is required, a Post-Closure Care Plan was developed (Appendix A). This Plan includes outlines a semi-annual monitoring program involving four USGS installed test wells at the HWSF for TCE and daughter products (EPA Method 8260B). Existing well locations are given in Figure 1-2. The Post-Closure Care Plan will be implemented, if clean closure cannot be obtained (see Figure 2-3).

3.0 ENVIRONMENTAL SETTING

3.1 Climate

The average annual precipitation at White Sands is 10.8 inches, with half of this occurring in the rainy season, during the months of July through September. Precipitation varies widely from year to year and month to month. For a 24-hour period, the maximum rainfall of record was 5.31 inches on September 21 to 22, 1941. The average annual air temperature ranges from 62° F in the south to 54° F in the north. Summers are hot, with average highs of 95° F in July and August with frequent readings over 100° F. Winters are relatively mild; however, temperatures at night often go below freezing and are even lower in the mountains.

The prevailing wind is from the west at an annual average wind speed of 6.1 miles per hour (mi/hr), and is strongest in spring and lightest in fall. The strongest gusts have been measured at 82 mi/hr from the southwest.

Potential evaporation, estimated from Class-A pan measurements, averages 105 inches per year (in/y). Potential evaporation greatly exceeds precipitation in this region; thus, the likelihood of substantial deep percolation of precipitation is minimal.

3.2 Topography

White Sands is bordered on the west by the San Andres and Organ Mountains, with the highest elevation at Organ Peak, approximately 8,900 feet above mean sea level (MSL). The steep eastern flanks of the ranges terminate abruptly at eastward sloping, alluvial-fan surfaces which grade, in turn, into the gently sloping basin floor. The total relief of the area is approximately 5,000 ft.

The HWSF is located at an approximate elevation of 4,040 ft MSL. The land surface at HWSF is characterized by a persistent gentle slope towards the east and is overlain by a hummocky veneer of active sand dunes. Figure 3-1 shows a topographic map of the HWSF and surrounding area.

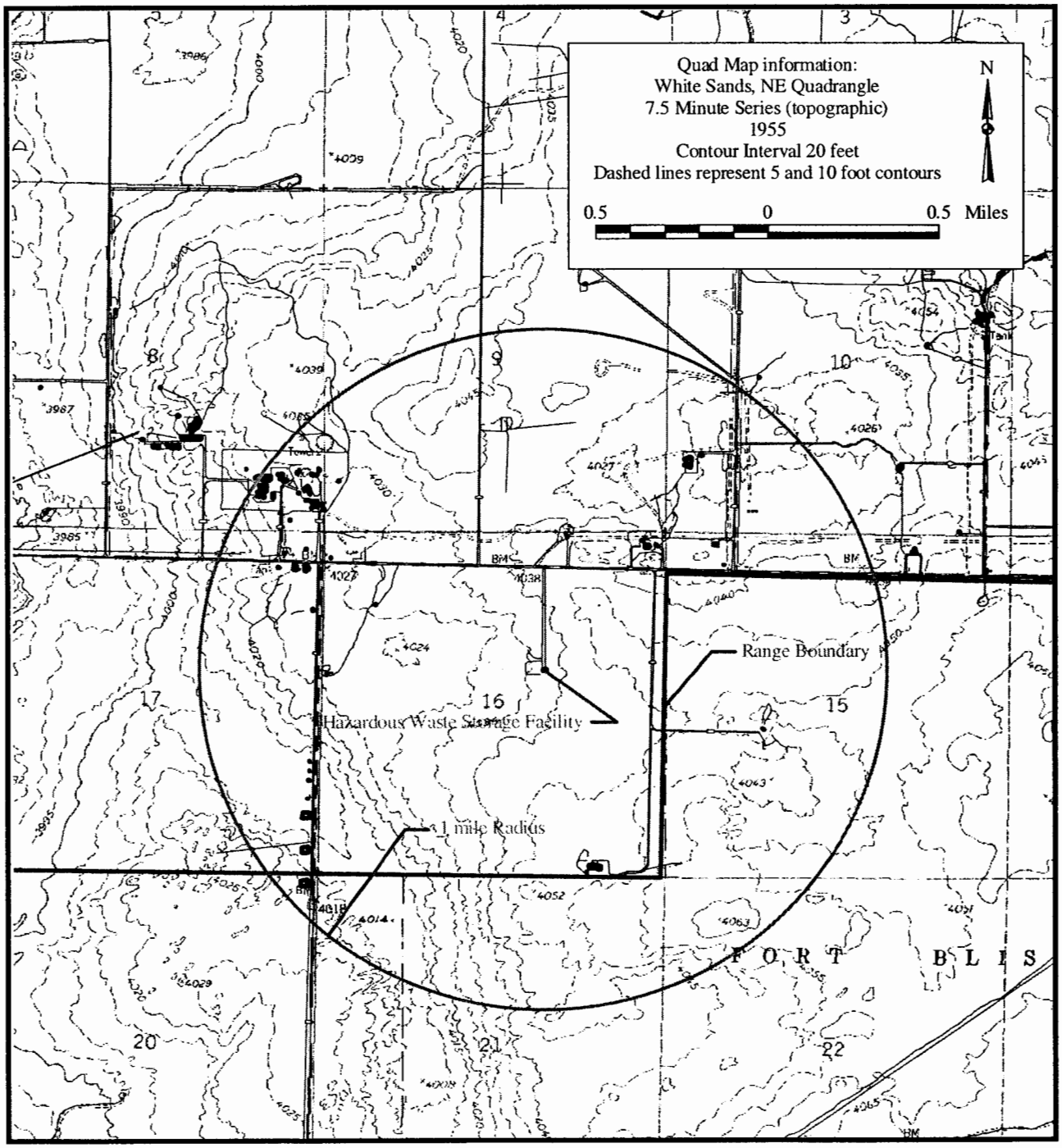


Figure 3-1.
Topographic Map of the Hazardous Waste Storage Facility and Surrounding Area.

3.3 Surface-Water Features

No continuously flowing streams or permanent surface water bodies occur within the western area of White Sands. Surface waters at White Sands are normally scarce, due to low precipitation, high evaporation, and the favorable absorption characteristics of the soils. Surface flows originating from precipitation in the mountains either infiltrates into or flows across the alluvial fans, terminating as playas in the topographically lower parts of the basin. Although the local drainage courses are oriented toward the center of the basin, the overall regional drainage is to the south. No permanent surface waters or intermittent streams are located in the immediate area of the HWSF, and the HWSF is not located in a 100-year floodplain.

3.4 Hydrogeology

3.4.1 Regional Geological Setting

White Sands is located within the Mexican Highland section of the Basin and Range physiographic province, which is characterized by series of tilted fault blocks forming longitudinal, asymmetric ridges or mountains and broad, intervening basins. The major part of White Sands is situated within the Tularosa Basin, and the northwest part of White Sands is located within the Jornada del Muerto Basin. The basin is bounded on the west by the Organ and San Andres Mountains. The eastern limit of the Tularosa Basin lies just outside White Sands' eastern boundary and is formed from north to south by the Jicarilla, Sierra Blanca and Sacramento Mountains. Figure 3-2 presents a generalized cross-section of the geology of the southern part of the Tularosa Basin.

Rocks of Pennsylvania age overlie the granite and quartzite of the Precambrian basement complex in the northern third of White Sands, and early Paleozoic rocks overlie the basement complex in the southern two thirds of White Sands. Rocks of Permian age overlie the Pennsylvanian rocks, possibly disconformably. Triassic strata overlie, apparently conformably, the Permian rocks. A thick sequence of Cretaceous rocks overlie Triassic northwestern parts of the northern part of White Sands.

Tertiary and Quaternary sedimentary rocks were derived principally from weathering of Paleozoic and Mesozoic rocks and generally have a chemical and mineralogical character similar to those of the parent materials. Deposits of Quaternary age are widespread through White Sands and are thickest in the Tularosa Basin and the Jornada del Muerto. These deposits consist mainly of silt, sand, and gravel weathered from the mountain masses surrounding the basins. The thickness of Quaternary deposits ranges from a thin veneer, near the mountain fronts, to more than 500 ft toward the center of the basin.

3.4.2 Site-Specific Geology

The surficial materials at HWSF consist of active sand dunes, sandy loam, and loamy fine sand. The permeability of this material is very high, with values of 6.3 to 20 inches per hour (in/hr) reported.

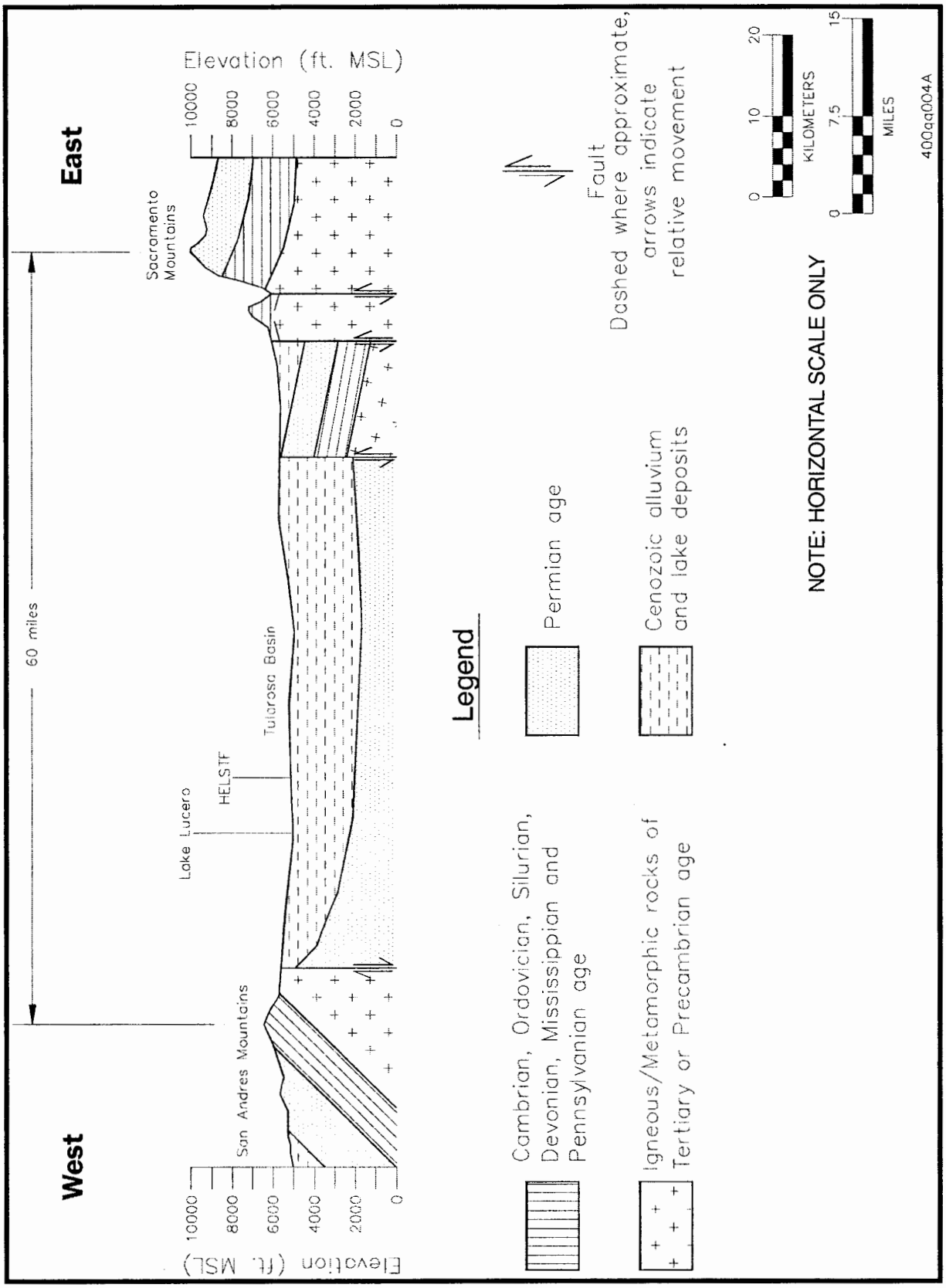


Figure 3-2. Generalized east-west cross section across the southern part of the Tularosa Basin, North of Highway 70, White Sands Missile Range.

The nearest subsurface lithologic logs are from test wells TW-01, TW-02, TW-03, and TW-04 (Appendix C and D) which were drilled to total depths of 300 ft below land surface and which are located immediately adjacent to the HWSF (Figure 1-2). In general, the stratigraphy is represented by unconsolidated to partially consolidated, fine to medium-grained sand with subordinate amounts of clay. Caliche is present as discrete layers and nodules throughout the stratigraphic section. Although no faults are mapped within the immediate area, quaternary faulting is known to exist within the region. These faults are reported to occur within the unconsolidated bolson sediments, trend north to south, and are most common near the mountain fronts.

3.4.3 Groundwater Hydrology

Test wells TW-1, TW-2, TW-3, and TW-4 (Figure 1-2), completed at total depths of 300 ft and adjacent to the HWSF encountered unconfined groundwater approximately 230 ft below land surface (Appendix C and D). This groundwater resource occurs in the more permeable silty-sand/sand units of the unconsolidated bolson deposits. Unconsolidated clay, silt, sand, and gravel strata overlie this regional aquifer, with the finer-grained lithologies predominating, and caliche layers and nodules are prevalent throughout the stratigraphic section. The finer-grained strata and caliche deposits act to impede the vertical migration of free liquids and to help to isolate the unconfined aquifer from the effects of activities at the HWSF.

Few wells have been drilled in the south-central part of the Tularosa Bolson, due to the saline quality of the groundwater, and no reported hydraulic data are available for the bolson deposits in the immediate vicinity of the HWSF. The Gregg Site Supply Well is located approximately one mi northeast of HWSF and is completed within bolson deposits similar to those encountered at the HWSF. An average saturated hydraulic conductivity of 18 feet per day (ft/d) was reported for the permeable sand units of the Gregg Site Supply Well; this value may be representative of the permeable sand units encountered by the test wells adjacent to the HWSF.

Recharge to the regional aquifer is from precipitation falling on the mountain ranges and alluvial fans, which border the bolson on the west. This precipitation infiltrates the unconsolidated, relatively coarse deposits of the alluvial fans, and the resultant groundwater flows toward the center of the Tularosa Bolson, generally to the east-southeast. However, groundwater flow direction may be altered locally, because of the pumping of water supply wells. The groundwater within the western Tularosa Bolson region is presumed to discharge to the south as underflow into the contiguous, northern Hueco Bolson of western Texas. No surface expressions of groundwater discharge have been reported within the western Tularosa Bolson. Dissolved constituents in groundwater increase with distance eastward from the mountain front, reflecting the increased residence time of groundwater moving from the western bolson margin toward the center of the Tularosa Bolson.

Chemical analyses of groundwater samples collected from test wells TW-1, TW-2, and TW-3 (Appendix C) indicate a relative saline, sodium-chloride/sodium-sulfate type water with total dissolved solids concentrations of nearly 15,000 milligrams per liter (mg/L) (Appendix D, Table 7). Even though the water-quality characterization (trace-metals and organics) of this water indicates no adverse effects related to the overlying HWSF (Appendix D), this naturally occurring groundwater is classified as a State of New Mexico Class-III water and is considered unfit for human consumption without treatment.

Wells completed within the alluvial fans of the western Tularosa Bolson supply fresh water to satisfy the entire water needs of White Sands. These wells are located west of and upgradient from HWSF and thus should be protected from any activities that occur at HWSF.

3.5 Operational History

The exact time of initiation of operations at the Evaporation Tank cannot be confirmed from the records available at White Sands. However, White Sands personnel have estimated the age of the Evaporation Tank in excess of 15 years, as of 1993. The Evaporation Tank was not used since 1981.

When used for evaporation, the Evaporation Tank received waste approximately twice a year. The types of waste managed were generated predominantly at the photographic laboratories and included aqueous solutions of potassium ferricyanide, potassium ferrocyanide, bleach solutions, developing baths and fixers, and waste from cyanide-recycling equipment. The liquid wastes remained in the tank as long as necessary to evaporate the liquid phase; the remaining sludge then was removed, drummed, and disposed of in the Hazardous Waste Landfill (HWLF) which was located in close proximity to the Evaporation Tank.

4.0 EVAPORATION TANK FLOOR REMOVAL

The non-hazardous Evaporation Tank concrete floor (Appendix B) was removed and disposed at the White Sands Construction Landfill (Figure 2-4). The floor was demolished by pneumatic hammer so that only small concrete pieces remained. The concrete pieces of the former Evaporation Tank floor were loaded into dump trucks and transported to the White Sands Construction Landfill.

White Sands employed appropriate measures, as necessary, to minimize inhalation, absorption, and ingestion of particulate emissions during the concrete floor removal operation. White Sands did not demolish the concrete during high-wind conditions, which may have resulted in excessive dispersal of concrete waste materials into surrounding areas. Waste materials were covered or otherwise handled to minimize particulate emissions during infrequent episodes of relatively high winds. The four corners of the Evaporation Tank's concrete floor were monumented with 1/2-inch diameter reinforcing bars, as have the previous boring locations, to aid in the reestablishment of the previous bore holes. In this manner, the Phase 1b borings can be accurately placed.

5.0 THREATENED AND ENDANGERED SPECIES SURVEY

Prior to the start of Phase 1 activities, a White Sands Range-Biologist will complete a threatened and endangered (T&E) species survey. The survey will consist of a pedestrian survey of the HWSF and surrounding property to determine if evidence suggests that T&E species are located at or near the HWSF. A summary of the T&E survey will be appended to the Final Report.

6.0 SAMPLING PROTOCOL

The Health and Safety Plan is contained in Appendix E. The goal of Phase 1 sampling in the Plan is to identify whether total TCE concentrations or any of its daughter products (i.e. 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethene, *cis*-1,2-dichloroethene, *trans*-1,2-dichloroethene, and vinyl chloride) are present in concentrations equal to or above the regulatory limit.As further discussed below, soil gas, soil, and groundwater samples will be analyzed by EPA Method SW846-8260B for contaminants of concern. All analytical results for all samples collected will be reported to NMED-HWB (see Section 6.5) following completion of field activities. Tables 6-1 and 6-2 list each contaminant of concern's Chemical Abstracts Service Registry Number (CAS RN), practical quantitation limit, and the New Mexico and Federal regulatory limits for soil and groundwater. Analytical results will be compared to the more stringent regulatory limit shown for each media.

Table 6-1.
Contaminants of Concern and Regulatory Limits for Soil

Common Name	CAS RN	EPA Method 8260B PQL[1] (mg/kg)	NMED SSL[2] (residential scenario) (mg/kg)
1,1-dichloroethane	75-34-3	0.01	560
1,2-dichloroethane	107-06-2	0.01	3.3
1,1-dichloroethene	75-35-4	0.01	8.1
cis-1,2-dichloroethene	156-59-2	0.01	41
trans-1,2-dichloroethene	156-60-5	0.01	60
Trichloroethene	79-01-6	0.01	16
vinyl chloride	75-01-4	0.01	0.21

Note: 1: PQL – Practical Quantitation Limit
2: Values obtained from the New Mexico Environment Department Technical Background Document for Development of Soil Screening Levels

Table 6-2.
Contaminants of Concern and Regulatory Limits for Groundwater

Common Name	CAS RN	EPA Method 8260B PQL (mg/L)	NM WQCC Limit[1] (mg/L)	EPA MCL[2] (mg/L)
1,1-dichloroethane	75-34-3	0.005	**0.005**	N/A
1,2-dichloroethane	107-06-2	0.005	0.01	**0.005**
1,1-dichloroethene	75-35-4	0.005	N/A	**0.007**
cis-1,2-dichloroethene	156-59-2	0.001	N/A	**0.07**
trans-1,2-dichloroethene	156-60-5	0.005	N/A	**0.1**
trichloroethene	79-01-6	0.005	0.1	**0.005**
vinyl chloride	75-01-4	0.001	**0.001**	0.002

Note: 1: Values obtained from Section 3103 of the New Mexico Water Quality Control Commission Regulations (November 15, 1996)
2: Maximum Contaminant Limit (MCL) values obtained from U.S Environmental Protection Agency Drinking Water Water Regulations and Health Advisories (EPA Document # 822-B-96-002, October 1996).

6.1 Phase 1a - Soil Gas Survey

The soil gas survey will be performed in the immediate and area surrounding the former evaporation tank to determine the presence, and evaluate the extent of TCE or TCE daughter products remaining in the soil. Approximately thirty (30) points (Figure 6-1) will be sampled and analyzed for a full scan of VOCs (EPA Method 8260B), which includes TCE. The intent of the soil gas survey is to determine if a significant plume exists, such that the locations of the soil borings conducted in Phase 1b may be optimized.

Soil gas will be collected via steel probe rods, with disposable drive points (or functionally equivalent equipment), hydraulically driven to the required sampling depth [approximately 10 ft (3.0 m)]. Samples will be collected in 1-cc disposable syringes or 10-cc evacuated vials with double-ended transfer needles for duplicate samples. Quantitative analysis of soil gas samples will be accomplished in the field using an analytical system, which includes a laboratory grade gas chromatograph (GC) and computerized data processing station for data acquisition, storage, and retrieval. Sampling points will be laid out on a grid at 10-12 ft (3.0-3.7 m) intervals (Figure 6-1). The sample location number, time and date of collection and pertinent information regarding the procedure, observations, and any problems encountered will be recorded in the Field Sampling Log. Soil gas samples will be analyzed for the full scan of VOCs (EPA Method 8260B) using a field GC. The GC will be equipped with a mass selective detector capable of reaching minimum detection limits of 0.1 microgram (μg/L) with an expected accuracy of at least 20 percent. Because data gathered from the soil gas survey will be used solely as a screening tool, no QA samples will be submitted to a secondary laboratory.

6.2 Phase 1b – Soil Borings

Based on the results of the soil gas survey, twelve soil borings will be completed at the location of the former tank. If VOCs are not detected in the soils during Phase 1a, then the soil borings will be located as shown in Figure 6-2. If VOCs are detected in the soils during Phase 1a, then the soil borings will be strategically placed to best determine the extent of contamination. Prior to reaching a decision point regarding remedial action or post-closure care, White Sands must determine the horizontal and vertical extent of contamination by collecting one "clean" soil sample below and in each direction horizontally from all soil samples determined to be above the New Mexico residential SSLs. If it is shown that "clean" samples were not collected below and horizontally from any samples determined to be above soil closure standards, then White Sands will initiate an additional field investigation to determine the horizontal and vertical extent of contamination.

Soil borings will be accomplished with a hollow-stem drill rig using 2 or 3 in continuous split spoon samplers. Soil samples will be collected and analyzed for total TCE concentrations and all TCE daughter products (see Table 6-1) using EPA Method 8260B. Laboratory prepared trip blanks will accompany all VOC samples. The resultant analyses will aid in judging whether: (1) clean closure is obtainable, (2) the Evaporation Tank area should be capped and post-closure care needs to be implemented, or (3) identify a remediation technology if the analyses are above the regulatory limit (see Figure 2-3). The site shall be deemed "clean closed" if detected contaminants of concern collected from the underlying soils and groundwater do not exceed applicable State of New Mexico and Federal regulatory limits (which ever is more stringent) listed in Tables 6-1 and 6-2.

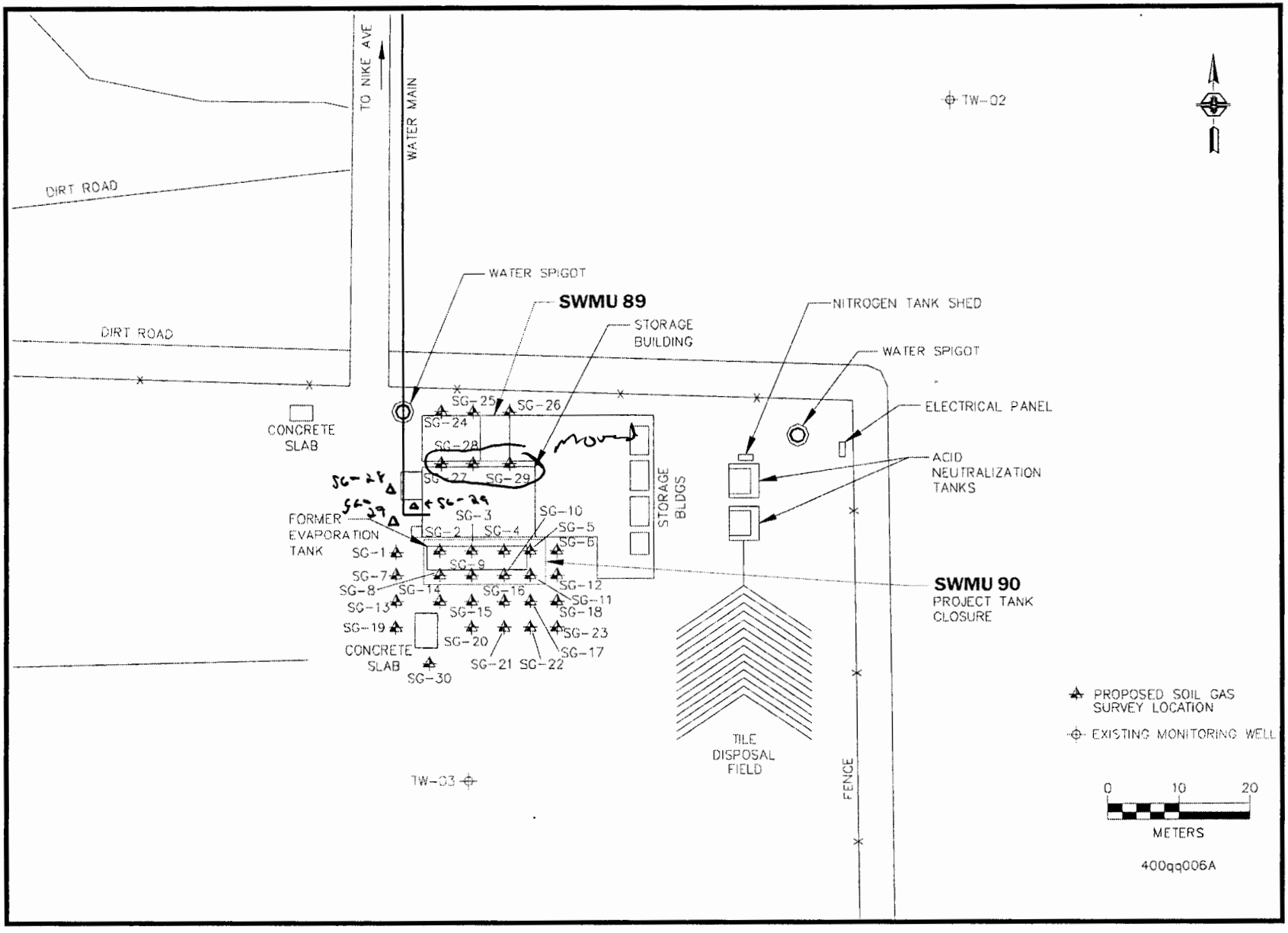


Figure 6-1. Location of Proposed Soil Gas Survey Points.

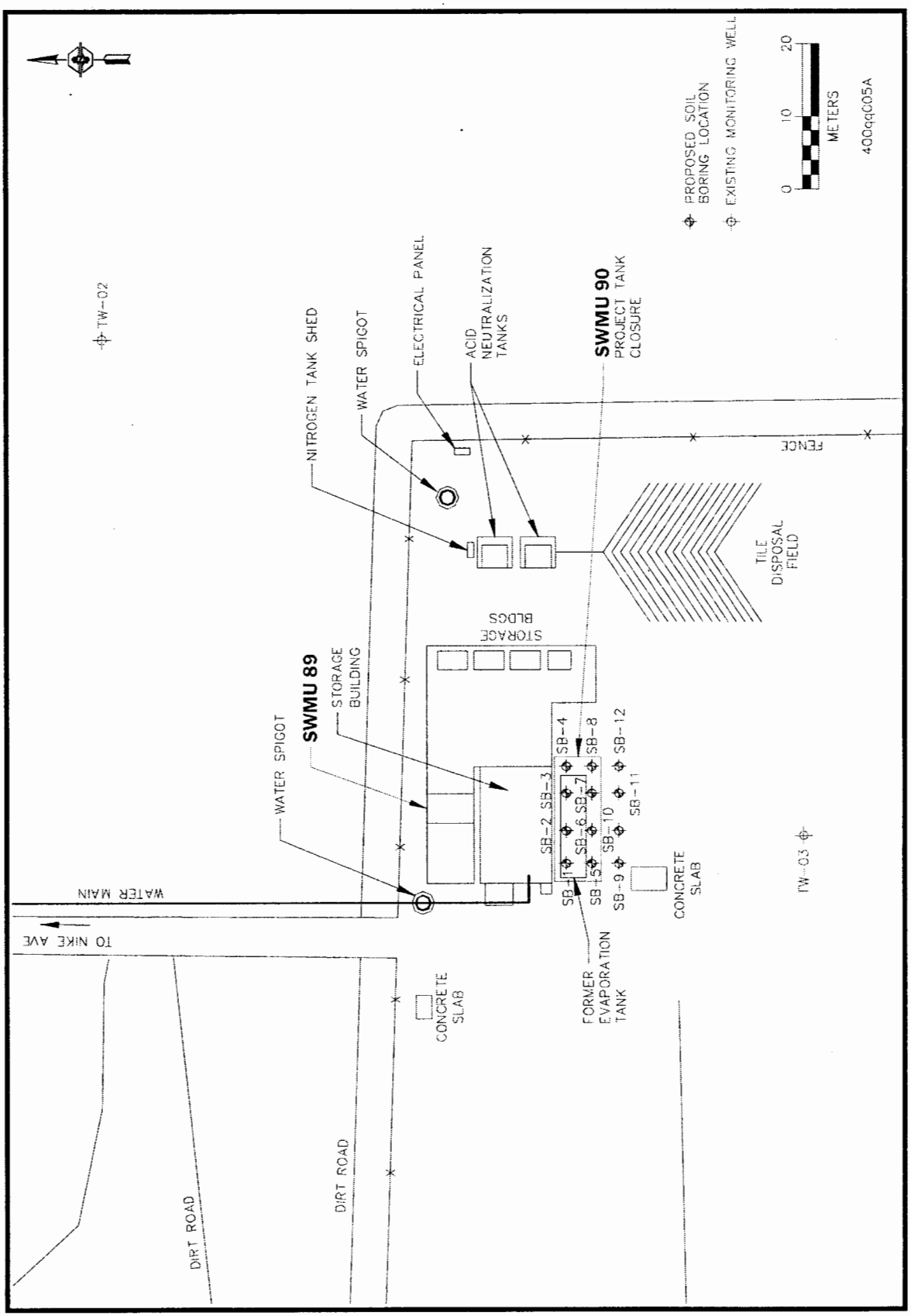


Figure 6-2. Location of Proposed Soil Borings.

All soil samples will be visually classified using the Unified Soil Classification System (USCS) and logged for the entire length of the borehole. Depth-discrete soil samples collected from 0-2 ft (0-0.6 m), 2-4 ft (0.6-1.2 m), 4-6 ft (1.2-1.8 m), 10-12 ft (3.0-3.7 m), 18-20 ft (5.5-6.1 m), and 23-25 ft (7.0-7.6 m) will be collected from each of the 12 borings and submitted for chemical analysis.. However, sample depths may be adjusted based on visual or photo-ionization detector (PID) evidence of contamination. Also, the total depth of the borings may be adjusted, if necessary, so that the last sample collected is below any visual or PID evidence of contamination. Approximately 10% of the soil samples will be split and sent to a second laboratory for identical analysis. All soil samples will be sent to A2LA and/or COE certified laboratories. Additional trip blanks will be taken as part of the QA/QC protocol (Appendix F). All soil cuttings will be placed in a double lined roll-off container for characterization and disposal.

6.2.1 Sample Preparation

The samples shall be immediately placed in new 4-ounce (oz) glass containers provided by each laboratory In order to minimize contaminant loss through volatilization, undisturbed core samples will be placed into the containers and packed with additional "loose" soil so that the sample is flush with the top of the jar, and the container sealed and tagged after use. No preservatives shall be added. An identification number will be assigned to each container, and all relevant field-sampling and sample-processing information is to be documented in the field logbook. The sample-location identification and soil depth also will be recorded. Samples prepared for analyses shall be labeled as follows:

- sample number
- date and time sampled
- location identification number
- sample depth below ground surface
- analyses required
- sample collector's name

Immediately after taking the sample, each container shall be custody sealed, placed in a sealable plastic bag, and placed in a cooler filled with ice. A chain-of-custody shall be prepared for each sample and shall be enclosed in the cooler. All sealing, labeling, and chain-of-custody procedures shall follow EPA criteria (Ref. 3).

6.2.2 Sample Transportation

Soil samples prepared as described above shall be packaged for transportation to the laboratory in durable coolers filled with ice. Completed chain-of-custody forms placed inside resealable plastic bags shall be taped to the underside of the cooler lids. The front and back of the cooler lids shall be custody-sealed and taped closed. An example of a chain-of-custody record is shown in Appendix F, Figure F-1. Samples shall be shipped to each A2LA and/or COE certified analytical laboratory. Shipments shall be labeled and documented in accordance with applicable U.S. Department of Transportation (DOT) regulations. Upon completion of analyses, copies of the fully-executed chain-of-custody forms shall be obtained for inclusion in the Plan's Final Report.

6.2.3 Quality-Assurance / Quality-Control (QA/QC) Samples

Primary samples and duplicate samples, approximately ten percent of the total, will be collected and processed, shipped to two separate A2LA and/or COE certified laboratories, and analyzed using identical analytical method procedures. A trip blank sample prepared by each laboratory will be placed in each outer package (cooler) of samples sent to the laboratories for analyses (Appendix F).

6.3 Phase 1c - Groundwater Sampling and Analysis

Groundwater samples will be collected from the four existing test wells (TW-01, TW-02, TW-03, TW-04) installed in the vicinity of the Hazardous Waste Storage Facility. White Sands realizes that the test wells were not constructed for environmental sampling, but will provide sufficient data to assist with closure decisions. All samples will be submitted for analysis of VOCs by EPA Method SW-846-8260B as well as water quality analysis (pH, specific conductance, and total dissolved solids). Along with the sample collection, the field parameters of pH, temperature, and conductivity will be measured and recorded in the field logbook. To evaluate groundwater flow direction and aquifer characteristics, groundwater level measurements will be taken in all wells. The water level within each test well will be measured to the nearest 0.01 ft with an electronic water level indicator. Measurements in monitoring wells will be measured at a mark or notch at the top of the PVC casing.

Prior to sampling, monitoring wells will be purged in order to obtain samples of formation water. All purging of 4 in diameter wells will be performed with a decontaminated, electric, submersible pump or a PVC hand bailer. Purging of all wells will continue until at least five casing volumes are removed and the field parameters of pH, temperature and conductivity are stable. All purged water will be containerized in approved containers at the well location.

After purging is satisfactorily completed, the water level will be measured with a water level detector and then the wells will be sampled as soon as possible with a PVC bailer. New nylon or poly-ethylene bailer cord will be used with the bailer at each well. If a well recharges slowly, sampling will begin as soon as sufficient recharge occurs to fill sampling containers. Sample containers will be filled directly from the bailer. All containers will be delivered "new" from each laboratory. New, disposable gloves will be worn by the sampling team members at each well. Table 6-3 lists detailed information for each proposed groundwater sample to be collected. Laboratory trip blanks will accompany all VOC samples.

Table 6-3. Groundwater Sampling Containers and Preservation

Parameter	Reference Method	Container	Preservative
VOCs	SW846-8260B	3-40 mL VOAs	HCl, 4°C
pH	EPA 150.1	1-250 mL Plastic Bottle	4°C
Specific Conductance	EPA 120.1		
Total Dissolved Solids	EPA 160.1		

At a minimum, the following information will be recorded in a bound field logbook for each sample collected:

- Date and time of collection,
- Sample location,
- Sample number,
- Water level and time of measurement,
- Total depth and diameter of the well,
- Depth of water column and minimum purge volume,
- Sample type (duplicate, split),
- Purging and sampling method (bailer, hand pump, submersible electric pump, etc.),
- Temperature, conductivity, and pH of well water during purging until stable readings are obtained,
- Color and turbidity of sample (if applicable),
- Volume purged prior to sampling,
- Sample preparation and preservation (filtering, NaOH etc.),
- Instrument calibration check,
- Sampler's name and personnel present, and
- Remarks on any special problems or observations.

Transportation of groundwater samples will be performed similar to the procedure described in Section 6.2.2. A QA/QC sample will be collected from one of the test wells for QA/QC analysis. QA/QC procedures will be performed similar to the procedures described in Section 6.2.3.

6.4 Notification of Sampling Activities

At least 10 days prior to any scheduled sampling, White Sands will notify the NMED in writing in order to provide NMED personnel with an opportunity to witness sampling procedures or to split samples with White Sands.

6.5 Reporting of Investigation Results

Per the schedule shown in Figure 2-3, White Sands will submit a report to NMED-HWB summarizing the Phase 1a, 1b, and 1c field activities. Analytical results from all samples collected will be shown in the report and copies of all analysis certificates included in the report's appendix. Contaminants of concern that exceed the regulatory limit specified in Tables 6-1 and 6-2 will be highlighted and further discussed in detail. The report will additionally specify whether requirements for clean closure were met and whether or not post-closure care is required.

7.0 EQUIPMENT DECONTAMINATION

A temporary portable decontamination pad with containment shall be established adjacent to the Evaporation Tank area accessible by the drill rig. The decontamination pad shall meet the following performance requirements:

- Sufficient strength to support all equipment to be decontaminated during the sampling activity;
- Constructed of material capable of withstanding the potential chemical effects of both the wastes being excavated and the decontamination solutions;
- Diked or bermed to contain all materials and decontamination solutions; and
- Constructed to drain all solutions to a general sump for collection.

This facility shall be used to decontaminate soil-sampling equipment. The facility also shall be used to decontaminate the soil-boring field equipment. The following is a general listing of equipment to be decontaminated, although specific equipment may vary depending on the contractor and level of effort required:

- shovels and other hand tools,
- drill rig,
- soil boring equipment, and
- other soil-sampling devices and equipment, as required.

Soil boring equipment and soil samplers shall be decontaminated as follows:

- remove visible contamination with absorbent cloth;
- wash and brush with alkaline detergent (such as Liquinox);
- rinse with potable water; and
- rinse with distilled water.

A final rinsate sample will be collected and analyzed to verify effective decontamination. All other equipment shall be decontaminated as follows:

- remove visible contamination by scraping, wiping, or brushing,
- wash with a high pressure hot water spray or steam clean, and
- rinse with potable water.

A final rinsate sample will be collected and analyzed to verify effective decontamination.

8.0 ALTERNATIVE TCE REMEDIATION

Clean closure of the site is the preferred closure alternative. However, if total TCE concentrations or concentrations of TCE daughter products analyzed in soil samples exceed the specified regulatory limit (see Table 6-1) at depths equal to or greater than 15 ft, then White Sands would proceed to cap the Evaporation Tank area and implement the Post-Closure Care Plan (Appendix A). If the Phase 1 analytical results do not confirm the vertical extent of any detected contamination, White Sands will cap the Evaporation Tank area (see Section 10.0) and then implement the post-closure care plan (Appendix A). If the Phase 1 analytical results adequately characterize the horizontal (areal) and vertical extent of the contamination, then White Sands will evaluate and select the most cost effective method of remediation. The remediation technologies may include, but not be limited to, the following: land farming, vapor extraction, and soil washing. Other alternative technologies that have not yet been identified may be considered; this will depend in part upon the contaminant concentrations found in the soil. After remediation, if clean closure still has not been attained, White Sands will proceed into the capping of the Evaporation Tank area and implementation of post-closure care (see Figure 2-3).

9.0 PERMITS AND HAZARDOUS WASTE DISPOSAL

The Clean Closure Plan has to be approved by the NMED. However, no additional permits are known to be required for the closure activities of the Evaporation Tank. Solid wastes generated during drilling and sampling will be segregated and containerized. Manifests to transport hazardous waste, as required by both the U.S. Environmental Protection Agency (EPA) and NMED, will be furnished and completed by the contractor and signed by the appropriate White Sands official as generator, if required. The destination of the hazardous waste would be a transport/storage/disposal facility (TSDF) that is permitted by EPA and/or the state in which such a facility is located.

Removal and storage of hazardous waste or suspected hazardous waste has been conducted by White Sands or its subcontractors under applicable Resource Conservation and Recovery Act (RCRA) regulations. Transportation of hazardous waste from White Sands requires conformance with applicable RCRA and DOT regulations and is conducted by an outside permitted operation. Any hazardous waste generated from the Evaporation Tank would be disposed of through the White Sands Joint Hazardous Materials Minimization Center.

10.0 ASSUMING CLEAN CLOSURE AFTER TANK REMOVAL

If clean closure is achieved, the depression left from the concrete tank removal would be backfilled and graded with clean soils. Clean sandy materials from uncontaminated areas outside the HWSF would serve as fill material. The sandy materials would be compacted and the areas will be graded to allow for drainage. All material should be free of rocks greater than one-inch diameter, organic matter, and other debris.

The backfilled excavation will be graded to minimize the accumulation of surface-water runoff and to promote runoff from disturbed areas. All diverted runoff is conveyed into the surrounding natural drainage system.

11.0 CLOSURE CAP OVER THE EVAPORATION TANK AREA

If clean closure cannot be attained (Figure 2-3), then closure and post-closure care must be accomplished in accordance with the requirements that apply to landfills (40 CFR 265.197(b), Ref. 8). These requirements provide that a cap will be constructed over the Evaporation Tank area. The cap will be designed and constructed to provide for long-term minimization of liquid migration through the closed area and to function with minimum maintenance. The cap also would be designed to enhance surface-water drainage and to minimize erosion or abrasion. Also, it should accommodate settling and subsidence of surface materials, so that the closure-cap's integrity is maintained and the cap will maintain a permeability less than or equal to that of the natural subsoils present in the area (Ref. 4).

Further, 40 CFR 265.197(b) requires compliance with 40 CFR 265, Subparts G – Closure and Post Closure (Ref. 9) and H – Financial Requirements. As a Federal facility, White Sands is exempt from the Subpart H requirements.

12.0 DESCRIPTION OF SECURITY SYSTEMS

White Sands is a federally-owned facility with restricted access. The HWSF is a fenced and secured area and is patrolled by White Sands security personnel 24 hours per day. The area involved in the closure operations described herein will be marked with signs labeled "KEEP OUT".

13.0 QUARTERLY PROGRESS REPORTS

White Sands will submit quarterly progress reports summarizing all activities completed or in progress, the data and information gathered to date, the schedule (Figure 2-3) status and an explanation of any schedule delays including problems encountered. Hard copies of the results of all analyses will be included in the quarterly progress reports. Progress reports will be submitted each quarter beginning 90 days from the NMED approval date of this Plan and continue until the time of clean-closure certification acceptance by NMED or until the Post Closure Care Plan (Appendix A) is implemented.

14.0 CONFLICTS OR DISPUTES

In the case of regulatory conflicts or disputes, the following procedures would be followed to achieve resolution of issues or concerns:

Paragraph A. -- The parties shall use their best efforts to informally and in good faith resolve all disputes of differences of opinion. If, however, disputes arise concerning the approval closure plan which the parties are unable to resolve informally, including but not limited to, disputes over the implementation of workplans, approval of documents, scheduling of any work, selection, performance, or completion of any closure actions, or other obligation assumed hereunder, White Sands shall submit a written notice of such dispute to the NMED within ten business days of the receipt of the disapproval, decision, or directive. The notice shall set forth the specific points of the dispute, the position White Sands maintains should be adopted as consistent with closure requirements, the basis thereof, and any matters which it considers necessary for the NMED's proper determination. The NMED shall provide to White Sands a written statement of its decision on the pending dispute, which shall be incorporated into the closure plan unless White Sands requests an opportunity for a conference in accordance with paragraph B below. The existence of a dispute defined herein, and the consideration of such matters, which are placed into dispute, shall not excuse, toll, or otherwise suspend any compliance obligations or deadlines while the dispute resolution process is pending.

Paragraph B. -- If White Sands objects to any NMED determination regarding any requirement by the NMED that White Sands perform work, White Sands shall, within 10 days of its receipt of the NMED's decision pursuant to paragraph A, notify the NMED in writing of its objections, and request that the Division Director of the Water and Waste Management Division convene an informal conference. The Division Director shall state in writing the final decision regarding the factual issues in dispute. Such decision shall be the final resolution of the dispute and shall be implemented immediately by White Sands according to the schedule contained therein.

15.0 CLOSURE CERTIFICATION

Within 60 days of completion of closure, White Sands will submit two certifications, one signed by the facility operator and the other signed by an independent professional engineer, each attesting that the Evaporation Tank at Building 28895 has been closed in accordance with this Plan. Documentation validating the closure of the Evaporation Tank, as required by HWMR-7, Part VI (40 CFR 265.115) will be furnished with the certification of closure. This documentation will be included in the Plan's Final Report (Section 17.0). Certification of closure is required as described in HWMR-7, Part IX (40 CFR 270.11(d)).

If the Evaporation Tank area is not "clean closed" and therefore has to be capped and cared for as detailed in Appendix A, then a survey plat will be prepared and certified by a professional land surveyor, detailing the location and waste contents of the contaminated soils. The plat will contain a meets-and-bounds legal description and will show the locations of the entire Evaporation Tank area and the extent of the cover in relation to permanently surveyed benchmarks. The plat will contain a note stating White Sands' obligation to restrict disturbance of the site. The survey plat will be submitted to the NMED's Water and Waste Management Division Director (as part of the Final Closure Report) and become a part of the operating record as required in 40 CFR 265.73.

16.0 CLOSURE PLAN MODIFICATIONS

This Plan may be modified in accordance with HWMR-7, Part VI (40 CFR 265.112(c)) if affected by changes to operating plans, expected closure date, or facility design, or any substantive modifications are required due to unexpected events occurring during closure. The plan will also be modified as needed to fulfill the requirements of closure. White Sands will submit a revised closure plan to the NMED no later than 30 days after any unexpected event affects the closure plan. White Sands will receive the NMED's written approval before implementing activities that constitute a revised closure plan submittal. If, at any time during closure, it becomes evident that closure activities will extend beyond the closure date on the closure schedule (Figure 2-3), White Sands will immediately notify the NMED of the anticipated impacts and will provide details of what corrective options White Sands would pursue. Any amendments would be submitted in writing to the NMED. A copy of the amended Clean Closure Plan will accompany the written request. The NMED is required to review and authorize any substantive modification to this Plan. The NMED will provide a verbal response, followed by written confirmation, for authorization of requested modifications.

17.0 FINAL REPORT

Following completion of initial post closure care activities White Sands will prepare a final report summarizing actions completed to date. The final report, due 60 days after the completion of all closure activities, will contain at a minimum, the following sections and associated documented materials:

1. The details of any variance from the approved closure plan and the reason for the variance.
2. The survey plat.
3. A narrative summary of all testing done during closure activities.

4. A summary on the closure activities.
5. Measures to control particulate emissions.
6. Disposal locations of all waste residues.
7. A certification of the accuracy of the report.
8. Copies of supporting documentation (as Final Report appendices, as deemed necessary:
   1) field logbooks,
   2) laboratory sample-analysis reports,
   3) QA/QC documentation, and
   4) chain-of-custody forms and records.

REFERENCES

1. Reference 1 removed during previous document revisions.

2. Closure Report, U.S. Army, White Sands Missile Range, Evaporation Tank, April 15, 1993, Advanced Sciences, Inc.

3. Test Methods for Evaluating Solid Waste, United States Environmental Protection Agency, Office of Solid Waste and Emergency Response, November 1986 (SW-846 Third Edition).

4. 40 CFR 265.310(A).

5. Clean Closure Plan for the Hazardous Waste Evaporation Tank at White Sands Missile Range. 3 December 1998.

6. Hazardous Waste Storage System Evaporation Tank Closure, White Sands Missile Range, New Mexico, March 1, 1995, Advanced Sciences, Inc.

7. 40 CFR 264, Appendix IX

8. 40 CFR 265.197(b)

9. 40 CFR 256 Subpart G – Closure and Post-Closure

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APPENDIX A

POST CLOSURE CARE PLAN

APPENDIX A
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A.1 BACKGROUND

On 31 August 1993, the State of New Mexico Environment Department Hazardous and Radioactive Materials Bureau (NMED) denied clean closure for the Evaporation Tank at Building 22895 located at White Sands Missile Range White Sands. The State letter indicated that White Sands could resubmit a new clean closure Plan, however, White Sands would have to be ready for post closure care if clean closure could not be accomplished. In the event that clean closure cannot be attained, White Sands will proceed into the post closure care. A post closure care permit application will be submitted to NMED within 180 days if clean closure has been determined non-attainable. The post-closure care permit application will contain all relevant information specified in 40 CFR 270 Subpart B – Permit Application and 40 CFR 264.310 Closure and Post-Closure Care. In particular, 40 CFR 270.14 General Requirements and 40 CFR 270.21 specific Subpart B information requirements for landfills will be followed. Additionally, as required, White Sands will prepare a Post Closure Care Plan meeting the requirements of the Permit Application. The following sections of Appendix A present an overview groundwater monitoring portion of the aforementioned Post Closure Care Plan. In 1987 the USGS installed four test wells at the HWSF. White Sands will use these four wells (Figure A-1) for monitoring any contamination identified at the former Evaporation Tank location. The target constituents will be TCE and its daughter products (EPA Method 8260B), however, additional groundwater parameters will also be run (pH, TDS & Temp) as part of the semi-annual monitoring program.

Procedures outlined herein are those specified for use at sites subject to the requirements of RCRA. These procedures are contained in "RCRA Ground-Water Monitoring Technical Enforcement Guidance Document (TEGD)," September 1986, Office of Waste Programs Enforcement (OSWER 9950.1), United States Environmental Protection Agency.

A.1.2 Scope

This Plan is intended to be used as the groundwater monitoring portion of the Post Closure Care Plan. By adherence to the protocols described in this document, operators of the HWSF groundwater monitoring network can be assured that their groundwater samples are uncontaminated by cross contamination and/or handling methods; and are representative samples of the groundwater in the upper most aquifer beneath the HWSF.

A.1.3 Regulatory Background

As authorized by RCRA, the EPA has promulgated a set of regulations concerning the generation, transport, storage, treatment and disposal of materials classified as hazardous wastes. Under the RCRA regulations, EPA and/or approved State agencies, including the NMED, regulate hazardous waste storage and disposal facilities, as described in 40 CFR 260 through 272.

In most circumstances, a program of groundwater sampling and analysis is required as a condition of closure of a hazardous waste storage or disposal facility. To comply with the regulations (40 CFR 264.97) the groundwater samples will:

- be collected according to a consistent sampling and analysis Plan,

- be collected and transported in a manner which assures that no contaminants can be added to or removed from them,
- be transported to an accredited laboratory under strict chain-of-custody procedures,
- accurately represent the condition and composition of groundwater in the "uppermost aquifer", and
- be analyzed according to a detailed analytical plan, including quality assurance/quality control steps.

Analytical techniques are capable of detecting many contaminants at levels of less than 1.0 part per billion (ppb). Because any statistically significant deviation from "background" may require an extensive assessment program, it is important that samples be collected in a clean, consistent and scientifically valid manner. Samples will be sent to a laboratory with A2LA and/or COE certification.

A.2 MONITORING WELLS

A system of four test wells were installed by the USGS. The monitoring wells are labeled TW-01, TW-02, TW-03, and TW-04 (see Figure A-1). This plan will only be concerned with the sampling and analysis of the USGS wells.

A.3 FREQUENCY OF WELL SAMPLING

In a RCRA detection monitoring program, 40 CFR 264.98 requires a minimum of semi-annual monitoring. HWSF will be regulated pursuant to the approved Post Closure Care Plan. The HWSF will operate under requirements of an approved RCRA permit or pertinent regulations contained within 40 CFR part 264. Sampling of the saturated will continue until the EPA Regional Administrator determines that there no longer exists a threat to human health and/or the environment per 40 CFR 264.117 (a) (2). White Sands will sample the four test wells (TW-1, TW-2, TW-3 and TW-4) on a semi-annual basis.

A.4 SAMPLE SHIPPING

Shipment of samples designated as environmental samples are not regulated by the U.S. Department of Transportation (DOT). However, these samples shall be transported in a manner to preserve their integrity. DOT has regulatory responsibility for the safety of hazardous materials transported off-site by any means. Regulations for packaging, marking, labeling, and shipping of hazardous substances are promulgated by DOT and described in 49 CFR 171 through 177 (1991). Samples shipped by common carrier or through the United States Postal Service must comply with DOT Hazardous Materials Regulations (49 CFR172 (1991)). The person sending such material is responsible for ensuring compliance with these regulations.

A.5 CHAIN-OF-CUSTODY PROCEDURES

Strict chain-of-custody (COC) protocols will be observed at all times during sample collection, transportation, and delivery to the analytical laboratory.

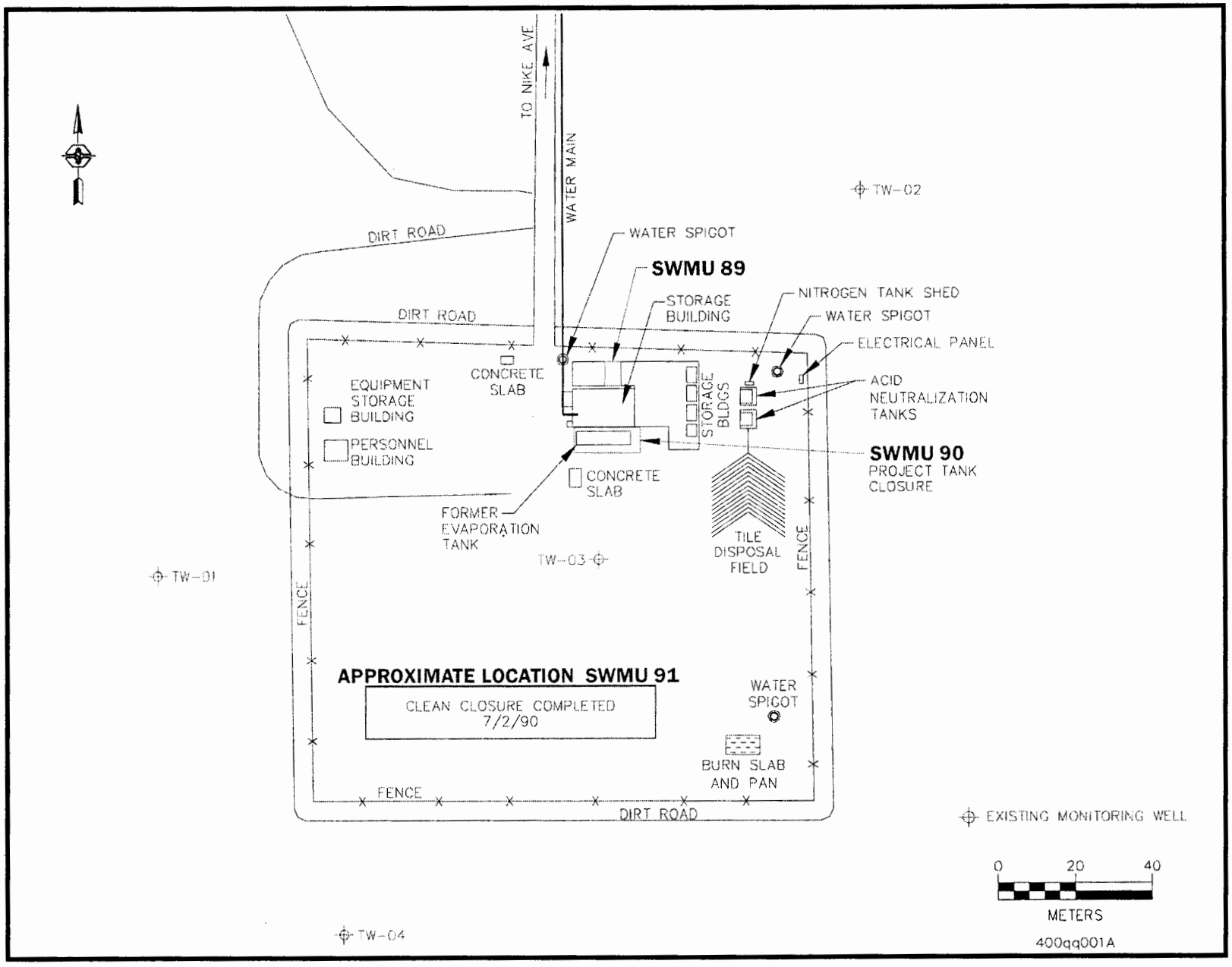

Figure A-1. Location of HWSF Test Wells.

A.6 ANALYTICAL METHODS AND QA/QC

All groundwater samples will be analyzed by an A2LA and/or COE certified laboratory. All groundwater samples will be analyzed for constituents on the Groundwater Monitoring List of Appendix IX, 40 CFR Part 264 for the initial sampling. The semi-annual samples will be analyzed for target constituents identified in the initial Appendix IX analysis. All sample methodologies will be in accordance with all applicable EPA Appendix IX methods. The laboratory will supply all internal QA/QC results with all sample results.

APPENDIX B

WHITE SANDS MISSILE RANGE –
NEW MEXICO ENVIRONMENT DEPARTMENT CORRESPONDENCE

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BRUCE KING
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RON CURRY
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Certified Mail
Return Receipt Requested

August 31, 1993

Dennis E. O'Brien
Colonel, U.S. Army
Deputy Commander
U.S. Army White Sands Missile Range
White Sands Missile Range, New Mexico 88002-5000

RE: NMED Denial of Clean Closure for Evaporation Tank at Building 22895 (NM2750211235)

Dear Colonel O'Brien:

The New Mexico Environment Department (NMED) hereby denies clean closure for the Evaporation Tank at Building 22895 located at White Sands Missile Range (WSMR). NMED's evaluation of the final Closure Report, dated April 15, 1993, and the information that WSMR submitted by letter dated July 15, 1993, indicates that the closure was completed in substantial conformance with the NMED approved closure plan, dated May 21, 1992. However, the data collected does not demonstrate that all hazardous wastes and hazardous waste residues have been removed or decontaminated at the unit. Specifically, trichloroethylene remains in subsoils beneath the unit above the Toxicity Characteristic Leaching Procedure (TCLP) regulatory concentrations.

In a meeting between the Hazardous and Radioactive Materials (HRMB) and WSMR staffs in Santa Fe on August 5, 1993, WSMR requested NMED's determination on whether or not the concrete slab at the unit should be sampled and analyzed as a soil sample. NMED does require that such materials be subject to the same sampling and analytical procedures as soil. However, since the concrete matrix is not as easily ingested as soil would be, NMED can consider health based concentrations for concrete on a case-by-case basis. NMED accepts the analytical data for the intact concrete presented in the Closure Report as meeting health based concentrations for clean closure of this material. If the concrete slab degrades in the future then NMED may reconsider this determination.

A post-closure plan must be submitted to the HRMB within ninety (90) days of your receipt of this letter. The post-closure plan must address all requirements of the New Mexico Hazardous Waste Management Regulations (HWMR-7), Part VI, Section 265.117 through 265.120. This plan must include, but is not limited to, requirements for closing the unit as a landfill, ensuring that the cover system meets the regulatory performance standards,

maintaining the integrity of the cover system, and providing a design and construction criteria for a groundwater monitoring system along with a schedule for installation.

At the August 5, 1993, meeting WSMR staff indicated a willingness to submit a new closure plan to attempt another clean closure of the evaporation tank unit. If WSMR wishes to seriously pursue clean closure and believes that it is a technically viable option then NMED will process such a new closure plan. The new closure plan must be submitted with the post-closure plan. At a minimum the closure plan must schedule sample and collection activities to determine the full extent of the contamination, remediation or removal activities, and verification sample collection and analysis to clearly confirm whether or not closure activities remove all hazardous waste and hazardous waste residues to below regulatory and health based concentrations, respectively.

NMED reserves the right to direct WSMR to proceed with implementation of the post-closure plan if the new closure plan submittal is regulatorily or technically inadequate or if WSMR fails to follow the closure plan schedule, once approved by NMED. The new closure plan must be written in a manner which integrates the post-closure plan under conditions that require WSMR to immediately proceed into closure of the unit as a landfill and post-closure care, in the event activities conducted under the new plan do not conclusively prove the unit to be clean. The contingency to proceed from closure to post-closure must be written into the plan in a manner that precludes NMED from having to take official action in the event that the new closure activities show that closure as a landfill and post-closure care are needed. On the other hand, If WSMR's activities taken under the new closure plan demonstrate clean closure then NMED will officially reverse the denial decision made today.

Please contact Barbara Hoditschek or Marc Sides at (505) 827-4308 if you have any questions.

Sincerely,

Kathleen M. Sisneros

Kathleen M. Sisneros, Director
Water and Waste Management Division

cc: Benito Garcia, HRMB
Barbara Hoditschek, HRMB
Marc Sides , HRMB
William K. Honker, EPA (H-P)
Peggy L. Hoffer, WSMR
Harrison Orr, WSMR

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BRUCE KING
GOVERNOR

JUDITH M. ESPINOSA
SECRETARY

RON CURRY
DEPUTY SECRETARY

September 8, 1994

Thomas A. Ladd, Director
Environment and Safety
Environmental Services Division
U.S. Army White Sands Missile Range
White Sands Missile Range, New Mexico 88002

Dear Mr. Ladd:

RE: Closure and Post-Closure Plan Approval
Evaporation Tank at Building 22895
EPA I.D. No. NM2750211235

On July 15, 1994, the Hazardous and Radioactive Materials Bureau (HRMB) of the New Mexico Environment Department (NMED) released the subject document for a thirty (30) day public comment period pursuant to the New Mexico Hazardous Waste Management Regulations (HWMR-7), Part VI, Sections 265.112(d)(4) and 265.118(f). The comment period ended on August 15, 1994, with no public comments received.

The NMED hereby approves the Closure and Post-Closure Plan for the Evaporation Tank at Building 22895 at White Sands Missile Range (WSMR). The approved plan includes the closure and post-closure document submitted by WSMR dated December 3, 1993, and the enclosed Conditions for Closure and Post-Closure Plan Approval. Closure and post-closure activities are to be conducted according to the schedule on Figure 3 of the approved plan.

Please contact Mr. Marc Sides of my staff at (505) 827-4308 if you have any questions.

Sincerely,

Kathleen M. Sisneros

Kathleen M. Sisneros, Director
Water and Waste Management Division

Enclosure

cc: Benito J. Garcia, Chief HRMB
Barbara Hoditschek, Program Manager HRMB
Marc Sides, HRMB IPA
Red-File

CONDITIONS FOR CLOSURE AND POST-CLOSURE PLAN APPROVAL

U.S. White Sands Missile Range

NM2750211235

Evaporation Tank at Building 22895

The closure and post-closure plan for the Evaporation Tank at Building 22895 as submitted by White Sands Missile Range (WSMR) dated December 3, 1993, and the following Conditions for Closure and Post-Closure Plan Approval constitutes the Approved Closure and Post-Closure Plan. The Conditions for Closure and Post-Closure Plan Approval take precedence over any conflicting or less stringent requirements found in the closure and post-closure plan as submitted by WSMR dated December 3, 1993. The New Mexico Hazardous Waste Management Regulations (HWMR-7) do not have the authority to approve the Health and Safety Plan, which is included in the closure and post-closure plan as Appendix E. The HRMB does not consider Appendix E as part of the Approved Closure and Post-Closure Plan.

1. DESIGN AND INSTALLATION SPECIFICATIONS FOR CLOSURE COVER SYSTEM

WSMR shall submit to NMED for approval all design and construction specifications for the final cover system (Section 10, page 15 of the closure and post-closure plan) if any of the criteria outlined on Figure 3 cause WSMR to proceed with the capping option. Such specifications shall be submitted to NMED within thirty (30) days of determining that a cover system must be installed over the closed unit.

2. POST-CLOSURE INSPECTIONS

With the information required by #1 above, WSMR shall submit a comprehensive post-closure inspection log and repair schedule. This shall detail all inspections and maintenance to be preformed on the cover system and any groundwater monitoring wells around the unit.

3. GROUNDWATER MONITORING PROGRAM

WSMR shall develop a complete groundwater monitoring plan for approval by NMED if the unit is capped and closed as a landfill with contaminated soil in-place. The groundwater monitoring plan shall address all regulatory requirements of HWMR-7, Part V, Section 264 Subpart F. The groundwater monitoring plan shall be submitted to NMED for approval within ninety (90) days of the decision to cap the unit. The groundwater monitoring plan shall evaluate the appropriateness of the monitoring wells located on Figure A-1 for monitoring the closed unit.

4. CLEAN CLOSURE DETERMINATION

Toxicity Characteristic Leaching Procedures (TCLP) is normally not used in clean closure determinations. Total concentrations are used as part of clean closure methodology. Confirmatory sampling shall be conducted by WSMR to ensure that trichloroethylene (TCE) concentrations are below the TCLP regulatory limit and below the health-based limit for total concentrations of TCE. WSMR shall describe sampling results in the Final Report for Closure.

5. VOLUME OF WASTE

WSMR shall document in the Final Report for Closure the volume of waste that has been lost into the subsurface from the evaporation tank and the EPA I.D. No. for the contaminant of concern.

State of New Mexico
ENVIRONMENT DEPARTMENT
Hazardous & Radioactive Materials Bureau
2044 Galisteo
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Santa Fe, New Mexico 87502
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GARY E. JOHNSON
GOVERNOR

MARK E. WEIDLER
SECRETARY

EDGAR T. THORNTON, III
DEPUTY SECRETARY

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

July 9, 1996

Thomas A. Ladd, Director
Environmental and Safety
Department of the Army
U.S. Army White Sands Missile Range
White Sands Missile Range, New Mexico 88002

RE: **HAZARDOUS WASTE STORAGE FACILITY EVAPORATION TANK CLOSURE VERIFICATION, EPA ID NO. NM2750211235**

Dear Mr. Ladd:

The New Mexico Environment Department (NMED) Hazardous and Radioactive Materials Bureau (HRMB) completed its review of the White Sands Missile Range (WSMR) Hazardous Waste Storage Facility Evaporation Tank Closure Final Report, dated April 4, 1995. WSMR submitted this data package to HRMB for closure verification and approval.

HRMB cannot verify that clean closure has been achieved at WSMR's Hazardous Waste Storage Facility Evaporation Tank. Enclosed is a copy of HRMB's technical concerns. Your response to these concerns is requested. If you have any questions regarding this matter, please contact Phillip Solano of my staff at (505) 827-1561.

Sincerely,

Barbara Hoditschek

Barbara Hoditschek, RCRA Permits Program Manager
Hazardous and Radioactive Materials Bureau

Enclosure (1)

cc: Benito Garcia, Chief HRMB
Kim Hill, HRMB TCP
Steve Pullen, HRMB DSMOA
David Neleigh, EPA Region VI (6PD-N)
WSMR Red File '96

Robin / Bobb
NRES. 8
249
S: 19 Jul 96
Aug
Rec'd
10 JUL 1996
NRES

TECHNICAL COMMENTS
"US Army White Sands Missile Range
Hazardous Waste Storage Facility
Evaporation Tank Closure Final Report
April 4, 1995"

1. Variances from Conditions for Closure and Post-Closure Plan Approval: White Sands Missile Range (WSMR) failed to meet the conditions for closure as detailed in a letter from Kathleen M. Sisneros, Director of the Water and Waste Management Division of the New Mexico Environment Department (NMED), to Thomas A. Ladd, Director of the Environmental Services Division of WSMR dated September 8, 1994. In this letter, NMED clearly states that the Toxicity Characteristic Leaching Procedure (TCLP) is inappropriate for making clean closure determinations. WSMR was to ensure that levels of trichloroethylene were not only below the TCLP regulatory limit, but also below the health-based limit for total concentrations.

2. Variances from the Approved Closure Plan:

A. In Section 2.1 of the final report, WSMR discusses deviating from the approved closure plan by changing methods of sample collection:

> "The original plan called for the removal of soil from the split spoon and the splitting of the soil from the appropriate depth into two soil samples of the required volume...it was determined that the use of split spoon liners would result in the least disturbance to the sample...[and would] ensure the most representative samples with minimum opportunity for loss of the potential volatile fraction to the atmosphere."

This variation from the approved closure plan does provide for less disturbance of the core and potentially mitigate the volatilization of the contaminant of concern, but provides for greater potential variance in analytical results. WSMR obtained the samples in the following manner:

> "At a given sampling depth, the section of [split spoon] liner containing the sample for the six inch interval prior to the sampling depth...was retained for the secondary laboratory and the liner containing the six inch interval below the sample depth was retained for the primary laboratory."

Since the samples were obtained from distinctly separate portions of the core and analyzed by two separate laboratories, they are not true duplicate samples and cannot be considered comparable; both the analytical results and the physical characteristics of these samples have the potential to be significantly different. Therefore, field duplicate samples, which are useful in determining overall field precision, were not obtained for this unit.

B. Section 5.0 of the approved closure plan indicates that WSMR will utilize two independent Contract Laboratory Program (CLP) laboratories to provide analyses on

a total of 216 samples. No documentation or discussion is provided to substantiate that both laboratories were CLP-qualified.

3. Rinsate Analyses: Appendix E of the final report indicated that the analytical results for the rinsate from the decontamination of the equipment was not available at the time of the report. This information should be readily available and provided to NMED for completeness of the report.

4. Field and Laboratory QA/QC Samples: The final report fails to discuss the QA/QC procedures and protocol followed during the sampling event and at each of the laboratories. At a minimum, the report should discuss the following: duplicate samples; trip, field, and equipment blank samples; and matrix spike and matrix spike duplicate samples. If these samples were not obtained, rationale should be provided in the final report.

5. Analytical Methods and QA/QC Methodology Employed by both the Primary and Secondary Laboratories:

   A. The final report fails to specify the EPA-approved analytical methods (including extraction) utilized by the Applied Environmental Test Branch or provide documentation of QA/QC activities when analyzing the samples.

   B. The final report does not fully demonstrate the QA/QC procedures and protocol followed by both the primary and secondary laboratories.

6. Final Report Text Revisions:

   A. Section 6.0 fails to mention the results and conclusions drawn from the analytical results provided by the secondary laboratory and fails to provide a full description of the sampling activities (ie., the number of boreholes, QA/QC procedures, etc).

   B. Section 7.0 Recommendations fails to discuss any recommendations, but provides an elaborate discussion of ground water information.

   C. Field and Laboratory QA/QC (see #4 and #5 above).

State of New Mexico
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GARY E. JOHNSON
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MARK E. WEIDLER
SECRETARY

EDGAR T. THORNTON, III
DEPUTY SECRETARY

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

December 17, 1996

Harrison R. Orr, Environmental Scientist
Directorate of Environmental and Safety
Environmental Services Division
STEWS-ES-E
Department of the Army
U.S. Army White Sands Missile Range
White Sands Missile Range, New Mexico 88002-5048

RE: **Clean Closure Plan for the HAZARDOUS WASTE EVAPORATION TANK**
EPA ID NO. NM2750211235

Dear Mr. Orr:

As discussed in your telephone conversation on December 12, 1996, with Phillip Solano of my staff, I am enclosing a copy of the approved closure plan for the Hazardous Waste Evaporation Tank.

If I may be of further assistance, please do not hesitate to call me at (505) 827-1561.

Sincerely,

Robert S. (Stu) Dinwiddie, Manager
RCRA Permits Management Program

Enclosure

cc: WSMR Red File '96

State of New Mexico
ENVIRONMENT DEPARTMENT
Hazardous & Radioactive Materials Bureau
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CERTIFIED MAIL
RETURN RECEIPT REQUESTED

December 2, 1997

Thomas A. Ladd, Director
Environmental and Safety
Department of the Army
U.S. Army White Sands Missile Range
White Sands Missile Range, New Mexico 88002

Dear Mr. Ladd:

RE: WHITE SANDS MISSILE RANGE, HAZARDOUS WASTE STORAGE FACILITY EVAPORATION TANK, BLDG. 22895, CERTIFICATION/VERIFICATION EPA ID NO. NM2750211235

The New Mexico Environment Department (NMED) Hazardous and Radioactive Materials Bureau (HRMB) has completed its review of the White Sands Missile Range (WSMR) sampling and analysis report for the Hazardous Waste Storage Facility (HWSF) Evaporation Tank Closure, letter dated July 2, 1997. HRMB determined that this sampling event has failed to show that clean closure has been achieved by WSMR for this hazardous waste unit.

On September 8, 1994, the NMED Water and Waste Management Division (WWMD) approved, with conditions, the WSMR Closure and Post-Closure Plan for the Evaporation Tank at Building 22895. This approval letter stated that the approved plan included the Closure and Post-Closure Care Plan dated December 3, 1993, with additional Conditions for Closure and Post Closure Plan Approval Condition #4, CLEAN CLOSURE DETERMINATION stated that:

> "Confirmatory sampling shall be conducted by WSMR to ensure that trichloroethylene (TCE) concentrations are below the Toxicity Characteristic Leaching Procedure (TCLP) regulatory limit and below the health-based limit for total concentrations of TCE."

Subsequently, WSMR has submitted two clean closure verification packages to HRMB:

> [illegible] WSMR submitted "*U.S. Army White Sands Missile Range Hazardous Waste Storage Facility*

Evaporation Tank Closure Final" certification/verification package.

- 07/02/97 WSMR submitted the certification/verification sampling package: *"Hazardous And Medical Waste Study No. 37-EF-6313-97, Hazardous Waste Storage Facility-Evaporation Tank, White Sands Missile Range, New Mexico, 6-10 January 1997"*.

HRMB determined both verification submittals to be administratively and technically deficient, thereby failing clean closure verification.

WSMR's submittal of May 4, 1995, was issued a Notice of Deficiency (NOD) by HRMB on July 9, 1996. Primarily, this data package did not include a Totals analysis required for clean closure determination. Additionally, the report failed to include required Quality Assurance/Quality Control (QA/QC) procedures and protocol that were followed during the sampling event and at each of the laboratories. Subsequent telephone conversations and a meeting were held to discuss these deficiencies. On October 7, 1996, HRMB received a draft facsimile of WSMR's response to HRMB's NOD. To date, no official response to HRMB's July 9, 1996, NOD has been received.

WSMR's submittal of July 2, 1997, failed to:

- provide a TCLP analysis (i.e., in addition to the totals analysis) as stipulated in NMED's approval letter dated September 8, 1994, Conditions for Closure and Post-Closure Plan Approval, Condition #4, CLEAN CLOSURE DETERMINATION: "Confirmatory sampling shall be conducted by WSMR to ensure that trichloroethylene (TCE) concentrations are below the Toxicity Characteristic Leaching Procedure (TCLP) regulatory limit and below the health-based limit for total concentrations of TCE.";

- analyze the surficial contamination of TCE (0-3' depth), as determined by the TCE-TCLP October 1992 results;

- investigate the *Proposed Evaporative Tank Sampling Locations* (Figure 5, December 3, 1993, Approved Closure and Post-Closure Plan) for Site #2/B;

- determine the horizontal and vertical extent of TCE contamination in the soils, as stated in WSMR's

Approved Closure and Post-Closure Plan dated December 3, 1993, Section 2.0 Purpose and Objectives;

- provide laboratory analyses from two separate Contract Laboratory Program (CLP) laboratories as stated in WSMR's Approved Closure Plan dated December 3, 1993, Section 2.0 Purpose and Objectives, Item #3, and Section 5.0 Sampling Protocol;

- adhere to the sampling procedure and protocol as specified in WSMR's Approved Closure and Post-Closure Plan dated December 3, 1993, Section 2.0 Purpose and Objectives, and Section 5.0 Sampling Protocol (i.e., "For the upper 5 ft (60 in), soil samples will be taken every 12 in depth, for a total of 60 samples. At 10 ft, 15 ft, 20 ft, and 25 ft depths in the soil borings, additional soil samples will be taken at each boring, for an additional total of 48 samples (Figure 5)."

Therefore, having denied WSMR's July 2, 1997, clean closure verification report, NMED requires that:

either: WSMR resample for clean closure verification (for both TCLP and Totals);

or: WSMR will submit a Parts A and B Permit Application for the post-closure care of this hazardous waste unit.

Should WSMR decide to resample for clean closure verification, sampling procedure and protocol must be adhered to as specified in:

- WSMR's December 3, 1993, Approved Clean Closure Plan;
- NMED's September 8, 1994, Closure Plan Approval Letter;
- NMED's July 9, 1996, NOD; and
- those deficiencies noted within this letter.

NMED requests that WSMR respond by formal letter notifying NMED of the option that WSMR chooses to pursue. WSMR must notify NMED within fifteen (15) calendar days upon its receipt of this letter

Regardless of the option chosen, WSMR will also address the biological environment, including threatened and endangered species as well as sensitive species located at or near the

facility. WSMR will propose a methodology to address the potential impacts to any ecological receptors and habitats located at or near the facility.

If you have any questions regarding this matter, you may contact Mr. Benito J. Garcia at 505/827-1558, or Dr. Robert S. Dinwiddie at 505/827-1561, of my staff.

Sincerely,

Ed Kelley
Director, Water and Waste Management Division

cc: Benito Garcia, Chief HRMB
Robert S. Dinwiddie, Program Manager RPMP
Jerry Bober, Supervisor RPMP/DOD
David Neleigh, Chief, EPA (6PD-N)

File: Red,WSMR,97
Track: WSMR,12/2/97,WSMR/Ladd,HRMB/PJS,RE

Post-it® Fax Note 7871	Date 9-28-98	# of pages ▸ 4
To Robin Smith	From P Solano	
Co./Dept. WSMR	Co. HRMB/NMED	
Phone # 505/678-8693	Phone # 505/827-1561	
Fax # 505/678-4028	Fax # 505/827-1544	

DEPARTMENT OF THE ARMY

U.S. ARMY WHITE SANDS MISSILE RANGE
WHITE SANDS MISSILE RANGE, NEW MEXICO 88002-

REPLY TO
ATTENTION OF

December 16, 1998

National Range Directorate of Environment and Safety

Mr. Benito Garcia
Hazardous and Radioactive Materials Bureau
New Mexico Environment Department
2044 Galisteo
P.O. Box 26110
Santa Fe, New Mexico 87502

SUBJECT: Submittal of Revision to the 3 December 1993 Sampling and Analysis Plan for the Clean Closure of the Hazardous Waste Storage Facility Evaporation Tank

Dear Mr. Garcia:

The White Sands Missile Range herein formally submits the Revision to the 3 December 1993 Sampling and Analysis Plan for the Clean Closure of the Hazardous Waste Storage Facility Evaporation Tank, dated December 1998. One copy of the Revision, as well as a CD-ROM electronic copy, will also be submitted to Mr. Phillip Solano of your staff.

Mr. Solano and Ms. Robin Smith of our staff have been in close communication regarding this issue. We trust you will find this Revision fulfills the closure requirements of your Bureau while illustrating our continuing commitment to work toward protection of human health and the natural environment.

If you have any questions, please do not hesitate to call or contact Ms. Robin Smith of our staff at (505) 678-8693.

Sincerely,

for Thomas A. Ladd
Director, National Range Directorate of
Environment and Safety

Copies Furnished:
Phillip Solano, HRMB, NMED (w/enclosures)
Julie Jacobs, DSMOA, NMED
James Harris, EPA Region VI (6PD-N)
Mark Melnyk, SJA, White Sands Missile Range
Nancy Kosko, AMSTE-SM-E, TECOM

ENVIRONMENT DEPARTMENT
Hazardous Waste Bureau
2044 A Galisteo, P.O. Box 26110
Santa Fe, New Mexico 87502-6110
Telephone (505) 827-1567
Fax (505) 827-1544

GARY E. JOHNSON
GOVERNOR

PAUL R. RITZMA
DEUPTY SECRETARY

CERTIFIED MAIL 7099 3220 0009 7939 6568
RETURN RECEIPT REQUESTED

December 6, 2000

Thomas A. Ladd, Director
Environmental and Safety
Department of the Army
U.S. Army White Sands Missile Range
White Sands Missile Range, N.M. 88002

RE: NOTICE OF ADMINISTRATIVE COMPLETENESS MODIFICATION TO THE APPROVED CLOSURE PLAN FOR THE HAZARDOUS WASTE STORAGE FACILITY, EVAPORATION TANK (SWMU 90 / DSERTS 35) EPA ID# NM2750211235

Dear Mr. Ladd:

The Hazardous Waste Bureau (HWB) of the New Mexico Environment Department has reviewed the September 1999, *Modification to the Approved Closure Plan for the Hazardous Waste Storage Facility, Evaporation Tank.* HWB has determined that the document is administratively complete.

The New Mexico Hazardous Waste Management Fee Regulations (20.4.2.201.5.1 NMAC) require assessment of fees when administrative review of a document is complete. HWB will issue an invoice to you under a separate letter. Payment is due within sixty (60) calendar days from the date that you receive the invoice.

Should you need to request an extension of the sixty-day period, the request must be received by the New Mexico Environment Department a minimum of fourteen (14) calendar days prior to the end of the sixty-day period. Should you disagree with the fee assessed you may file an Administrative Appeal under the provisions of 20.4.2.302.1 NMAC.

Upon receipt of the fees, NMED will begin review of the document for technical adequacy and completeness.

RCVD
12/14/00

If you have any questions please contact Cheryl Frischkorn or my staff at the address above or by telephone at (505) 827-1557 ext. 1042.

Sincerely,

Cal Will for

John E. Kieling
Manager
Permits Management Program

JEK:caf

cc: James P. Bearzi, NMED HWB
Cindy Abeyta, NMED HWB
Phillip Solano, NMED HWB
Robert S. Dinwiddie, NMED HWB
Cheryl Frischkorn, NMED HWB
Pam Allen, NMED HWB
David Neleigh, EPA Region 6 (6PD-N)
Julie Jacobs, NMED GWQB

File: Reading and WSMR Red 00
HWB-WSMR-99-010

ENVIRONMENT DEPARTMENT
Hazardous Waste Bureau
2044 A Galisteo, P.O. Box 26110
Santa Fe, New Mexico 87502-6110
Telephone (505) 827-1557
Fax (505) 827-1544

PAUL R. RITZMA
DEPUTY SECRETARY

CERTIFIED MAIL 7099 3220 0009 7939 6803
RETURN RECEIPT REQUESTED

April 10, 2001

Thomas A. Ladd, Director
Environmental and Safety
Department of the Army
U.S. Army White Sands Missile Range
White Sands Missile Range, NM 88002

RE: **REQUEST FOR SUPPLEMENTAL INFORMATION**
MODIFICATION TO THE APPROVED CLEAN CLOSURE PLAN FOR THE HAZARDOUS WASTE STORAGE FACILITY EVAPORATION TANK
SWMU 90 / DSERTS 35
WHITE SANDS MISSILE RANGE
EPA ID No. NM2750211235

Dear Mr. Ladd:

On December 6, 2000 the Hazardous Waste Bureau (HWB) of the New Mexico Environment Department (NMED) determined that the White Sands Missile Range (WSMR) Modification to the Approved Clean Closure Plan for the Hazardous Waste Storage Facility Evaporation Tank submitted in September of 1999 was administratively complete. On January 31, 2001 HWB submitted a letter confirming the receipt of the fees for technical review.

In accordance with 20.4.2.201.3 and 20.1.4 NMAC, HWB has completed its first technical review of WSMR's Modification to the Approved Clean Closure Plan for the Hazardous Waste Storage Facility Evaporation Tank and has determined that it is not technically adequate and that changes are necessary before it can be approved. Therefore, HWB is issuing WSMR with this ***Request for Supplemental Information*** (RSI).

HWB's comments are included as Attachment 1 and constitute our first technical review of WSMR's Modification to the Approved Closure Plan. Please submit a revised Closure Plan within sixty (60) days of your receipt of this RSI. In addition, please include a response letter that indicates exactly where revisions have been made, cross-referencing HWB's comments.

[illegible]
technical merit. If found to be technically adequate, HWB will then issue a letter to initiate closure activities. If you have any questions concerning this RSI, please call me at 505-827-1558 (extension 1042).

Sincerely,

Cheryl Frischkorn
WSMR Project Leader
RCRA Permits Management Program

CAF: caf
[HWB-WSMR-99-010]

cc: James P. Bearzi, NMED-HWB
Robert S. Dinwiddie, NMED-HWB
Glenn von Gonten, NMED-HWB
Phillip Solano, NMED-HWB
John Kieling, NMED-HWB
Julie Jacobs, NMED-GWB
Pam Allen, NMED-HWB
Cheryl Frischkorn, NMED-HWB
David Neleigh, EPA Region 6
WSMR Red File 2001

ATTACHMENT 1

ATTACHMENT 1

The following comments comprise HWB's first technical review of WSMR's Modification to [illegible]

CLEAN CLOSURE PLAN

General Comments

Comment 1. Revise the closure schedule appropriately and according to the changes to the revised closure plan.

Comment 2. Please revise Figure 1-2 Hazardous Waste Storage Facility Map, Figure 3-2 Generalized East-West Cross-Section of the Southern Part of the Tularosa Basin, Figure 6-1 Location of Proposed Soil Gas Survey, Figure 6-2 Location of Proposed Soil Boring, and Figure A-1 Location of HWSF Test Wells to include map scales.

Purpose and Objectives-Section 2.0

Comment 3. Throughout the text of the plan, change "total TCE **and/or** TCE-TCLP" to "total TCE **and** TCE_TCLP". The Toxicity Characteristic Leaching Procedure (TCLP) is for determining disposal options and cannot be used to determine the concentration of a contaminant. The NMED Position Paper regarding TCLP is attached for your reference.

Environmental Setting – Section 3.0

Comment 4. WSMR must provide scales on all maps submitted to HWB.

Sample Protocol – Section 6.0

Comment 5. WSMR must identify the size and types of containers used to collect soil and ground water samples in the sampling and analysis plan (SAP). The SAP must refer to the specific analytical method (SW-846) that designates an acceptable container. Refer to the RCRA Ground Water Monitoring Technical Enforcement Guidance Document.

Comment 6. HWB recommends that WSMR used the phrase "or functionally equivalent" when referring to specific equipment being used for closure and/or post-closure activities to avoid subsequent modifications to the plan(s).

Comment 7. State in the revised closure plan that the soil samples must also be analyzed for all daughter products (1,2-dichloroethane, 1,2-dichloroethene, and vinyl chloride) of trichloroethylene (TCE). The release of TCE was at least eight years ago, hence, it is more that likely daughter products of TCE are also in the subsurface.

Comment 8. WSMR must specify in the closure plan the closure standards for TCE in soils. Use the New Mexico Environment Department Technical Background Document for Development of Soil Screening Levels (December 18, 2000) to derive soil-screening levels for TCE.

Comment 9. When analyzing the soil samples using EPA Method 8260, report all the analytes detected by the method.

Comment 10. The closure plan must state WSMR will obtain one "clean" soil sample below and one "clean" soil sample in each direction horizontally of all the soil samples determined to be above soil closure standards.

Equipment Decontamination – Section 7.0
Comment 11. The New Mexico Environment Department (NMED) recommends WSMR use Liquinox® in lieu of Alconox® for decontaminating equipment. Alconox® contains phosphates and may interfere with analytical results.

Closure Cap Over the Evaporation Tank Area - Section 11.0
Comment 12. Section 11.0 must be revised to include all the information specified in 40 CFR 265.197(b).

POST CLOSURE CARE PLAN – APPENDIX A
Comment 13. If WSMR must pursue post closure for the evaporation tank and, consequently, submit a post closure care permit application, be sure to include all relevant information specified in 40 CFR 270 Subpart B and 40 CFR 264.310. This information includes but is not limited to:

- A general description of the facility [40 CFR 270.114(b)(1)];
- A description of the security procedures and equipment [40 CFR 270.114(b)(4)];
- A copy of the general inspection schedule [40 CFR 270.114(b)(5)];
- Justification of any request for waiver of preparedness and prevention requirements [40 CFR 270.114(b)(6)];
- Facility location information [40 CFR 270.114(b)(11)];
- A copy of the post closure plan [40 CFR 270.114(b)(13)];
- Documentation that required post-closure notices have been filed [40 CFR 270.114(b)(14)];
- The post-closure cost estimate for the facility [40 CFR 270.114(b)(16)];
- Proof of financial assurance [40 CFR 270.114(b)(18)];
- A topographic map [40 CFR 270.114(b)(19)];
- Information regarding protection of ground water [40 CFR 270.114(c)]; and
- Information regarding SWMUs at the facility [40 CFR 270.114(d)].

HAZARDOUS AND RADIOACTIVE MATERIALS BUREAU

New Mexico Environment Department

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

The use of TCLP is inappropriate for the purposes of site characterization.

TCLP **is** used for the following activites:

- simulating the leaching a waste will undergo if disposed of in a landfill (SW-846)
- characterizing waste for determining if a solid waste exhibits the characteristic of toxicity and is, therefore, a characteristic hazardous waste (40 CFR 261.24)
- determining disposal options - solid waste versus hazardous waste

TCLP **should not** be used for the following activites:

- site characterization in determining the nature, rate and extent of contamination (screening action levels, standards, etc.)
- release determination
- risk assessment
- soil screening action levels
- confirmation sampling

REFERENCES

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication SW-846, 3rd Edition.

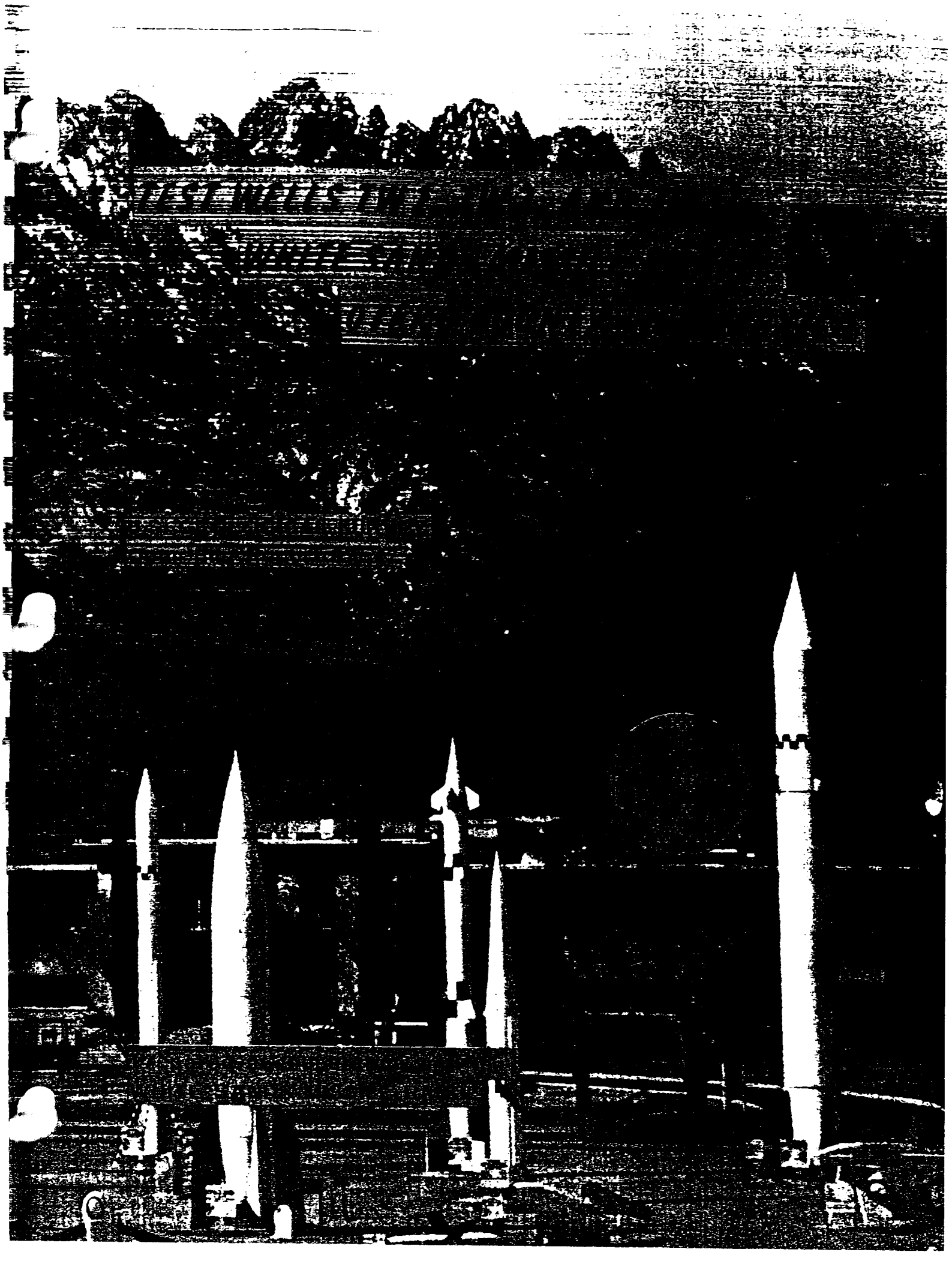
40 Code of Federal Regulations (40 CFR) 260.11, 261.24, and 261 Appendix II.

RCRA Corrective Action Training manual, U.S. EPA, September 1996.

RCRA Facility Investigation (RFI) Guidance, EPA 530/SW-89-031, May 1989.

APPENDIX C

USGS REPORT – 1987



TEST WELLS TW1, TW2, AND TW3, WHITE SANDS MISSILE RANGE, OTERO COUNTY, NEW MEXICO

By Robert G. Myers and Karen M. Pinckley

U.S. GEOLOGICAL SURVEY
Open-File Report 87-47

Prepared in cooperation with the
WHITE SANDS MISSILE RANGE

Albuquerque, New Mexico
1987

DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

U.S. GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information
write to:

District Chief
U.S. Geological Survey
Water Resources Division
Pinetree Office Park
4501 Indian School Rd. NE, Suite 200
Albuquerque, New Mexico 87110

Copies of this report can
be purchased from:

U.S. Geological Survey
Books and Open-File Reports Section
Federal Center
Box 25425
Denver, Colorado 80225

CONTENTS

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FIGURES

Figure 1. Map showing location of test wells TW1, TW2, and TW3, White Sands Missile Range 2

2-4. Natural gamma, neutron, and gamma-gamma logs for:

2. Test well TW1 (22S.06E.16.233) with casing 5

3. Test well TW2 (22S.06E.16.234) with casing 6

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CONVERSION FACTORS

In this report, measurements are given in inch-pound units only. The following table contains factors for converting to metric units:

Multiply inch-pound units	By	To obtain metric units
inch	25.4	millimeter
foot	0.3048	meter
mile	1.609	kilometer
cubic inch	16.4	cubic centimeter

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)--a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called "Mean Sea Level of 1929."

TEST WELLS TW1, TW2, and TW3,

WHITE SANDS MISSILE RANGE,

OTERO COUNTY, NEW MEXICO

By Robert G. Myers and Karen M. Pinckley

ABSTRACT

Three test wells, TW1, TW2, and TW3, were drilled at White Sands Missile Range in south-central New Mexico in July, August, and October 1983 as part of a joint military training program sponsored by the U.S. Navy and U.S. Army in July, August, and October 1983. The test wells were drilled as exploratory and monitoring wells for the toxic-waste storage facility at White Sands Missile Range. Information obtained from these wells includes lithologic logs for all wells and borehole-geophysical logs for the cased wells.

INTRODUCTION

Three test wells, TW1, TW2, and TW3 (fig. 1; table 1), were drilled at White Sands Missile Range in south-central New Mexico in July, August, and October 1983 as part of a joint military training program sponsored by the U.S. Navy and U.S. Army in July, August, and October 1983. The U.S. Geological Survey assisted White Sands Missile Range personnel in site selection, borehole-geophysical logging, analysis of well cuttings, and compilation of lithologic logs. To date (October 1986), none of these wells have been developed nor have water samples been available for chemical analyses. Driller's logs are not available. This study was done in cooperation with the Department of the Army, White Sands Missile Range, Facilities Engineering Directorate.

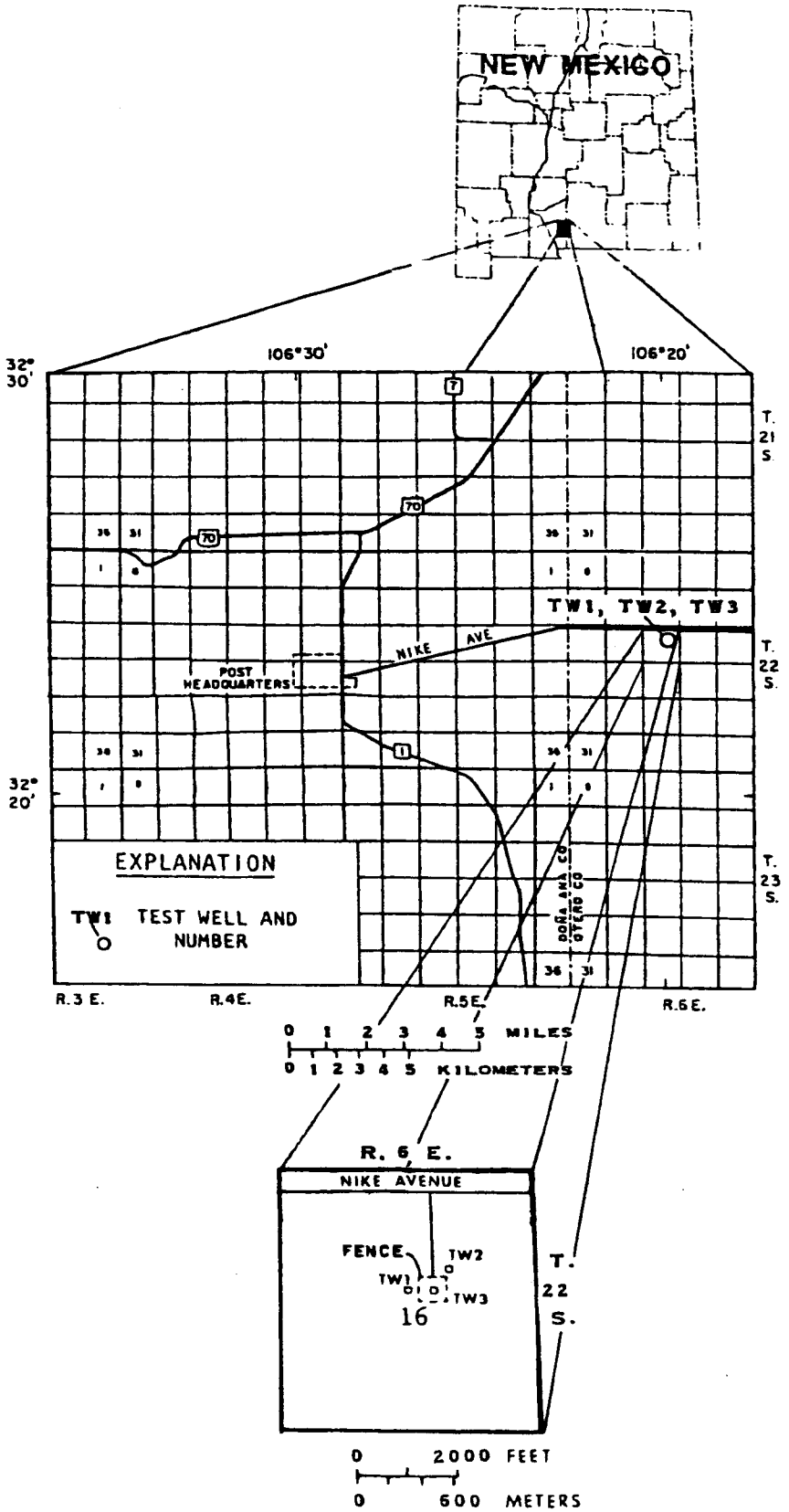

Figure 1.--Location of test wells TW1, TW2, and TW3, White Sands Missile Range.

Table 1. Well records of test wells TW1, TW2, and TW3, White Sands Missile Range

Well name	Location	Date drilled	Hole diameter (inches)	Drilled depth (feet)	Finished depth (feet)	Screen interval (depth below land surface) (feet)	Casing diameter (inches-type)
TW1	22S.06E.16.233	7-83	9 7/8	300	285	225-285	4 (PVC)
TW2	22S.06E.16.234	8-83	9 7/8	300	285	225-285	4 (PVC)
TW3	22S.06E.16.234A	10-83	9 7/8	300	290	230-270	4 (PVC)

Well name	Altitude of land surface (feet)	Water level below land surface (feet)	Date measured
TW1	4,031.81	229.00	9-8-83
		228.96	10-13-86
TW2	4,038.22	235.46	9-8-83
		235.80	10-13-86
TW3	4,037.19	232.42	7-26-84
		234.57	10-13-86

Lithologic logs in this report were prepared by the U.S. Geological Survey from cutting samples collected by U.S. Navy and U.S. Army personnel. The following list defines the terms used to describe the grain size of the detritus:

Description	Size in millimeters	Size in inches
Pebbles	4-64	0.16-2.5
Granules	2-4	0.08-0.16
Very coarse sand	1.0-2.0	0.04-0.08
Coarse sand	0.5-1.0	0.02-0.04
Medium sand	0.25-0.5	0.01-0.02
Fine sand	0.125-0.25	0.005-0.01
Very fine sand	0.0625-0.125	0.0025-0.005
Silt	0.004-0.0625	0.00015-0.0025
Clay	less than 0.004	less than 0.00015

The degrees of grain rounding were determined from comparison with the grain models in the Manual of Field Geology (Compton, 1962). The degree of roundness can range from very angular to well rounded. Sorting is the degree to which grains in a sample approach the same size. The degree can range from very well sorted (grains all the same size) to very poorly sorted (a wide range of grain sizes with no dominant grain sizes). Colors and any accompanying code numbers in the lithologic descriptions refer to colors from the Rock-Color Chart (Goddard, 1948) prepared by the Rock-Color Chart Committee and distributed by the Geological Society of America.

TEST WELLS TW1, TW2, and TW3

Test wells TW1, TW2, and TW3 (fig. 1) were drilled as exploratory and monitoring wells in the vicinity of the toxic-waste storage facility at White Sands Missile Range. The hydraulic-rotary drilling method was used to drill the test wells. Test well water-level and construction data are presented in table 1. The main purposes of wells at this locality are to obtain hydrogeologic data and to use the completed wells for monitoring water levels and water quality. Test wells TW1 and TW2 were drilled with a bentonite drilling fluid and test well TW3 was drilled with an organic-polymer drilling fluid. Natural gamma, neutron, and gamma-gamma borehole-geophysical logs made in the cased test wells TW1, TW2, and TW3 are shown in figures 2, 3, and 4, respectively. The wells penetrate interbedded clay, silt, sand, and some gravel in the Quaternary alluvium and bolson fill of the Tularosa Basin. Lithologic logs prepared by the U.S. Geological Survey (fig. 5) from analyses of well cuttings collected from test wells TW1, TW2, and TW3 by the U.S. Navy and U.S. Army are shown in tables 2, 3, and 4, respectively.

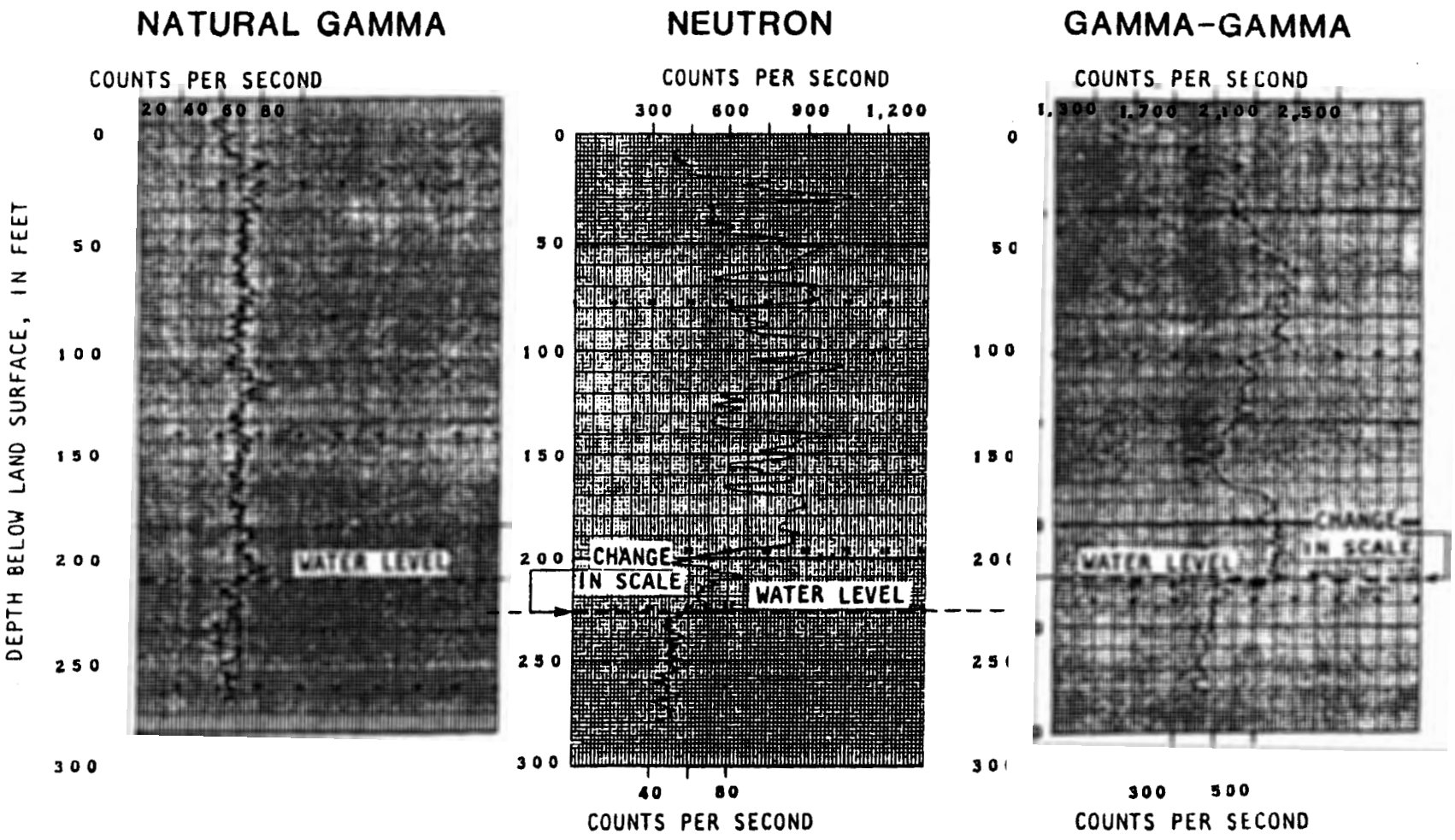

Figure 2.--Natural gamma, neutron, and gamma-gamma logs for test well TW

(22S.06E.16.233) with casing.

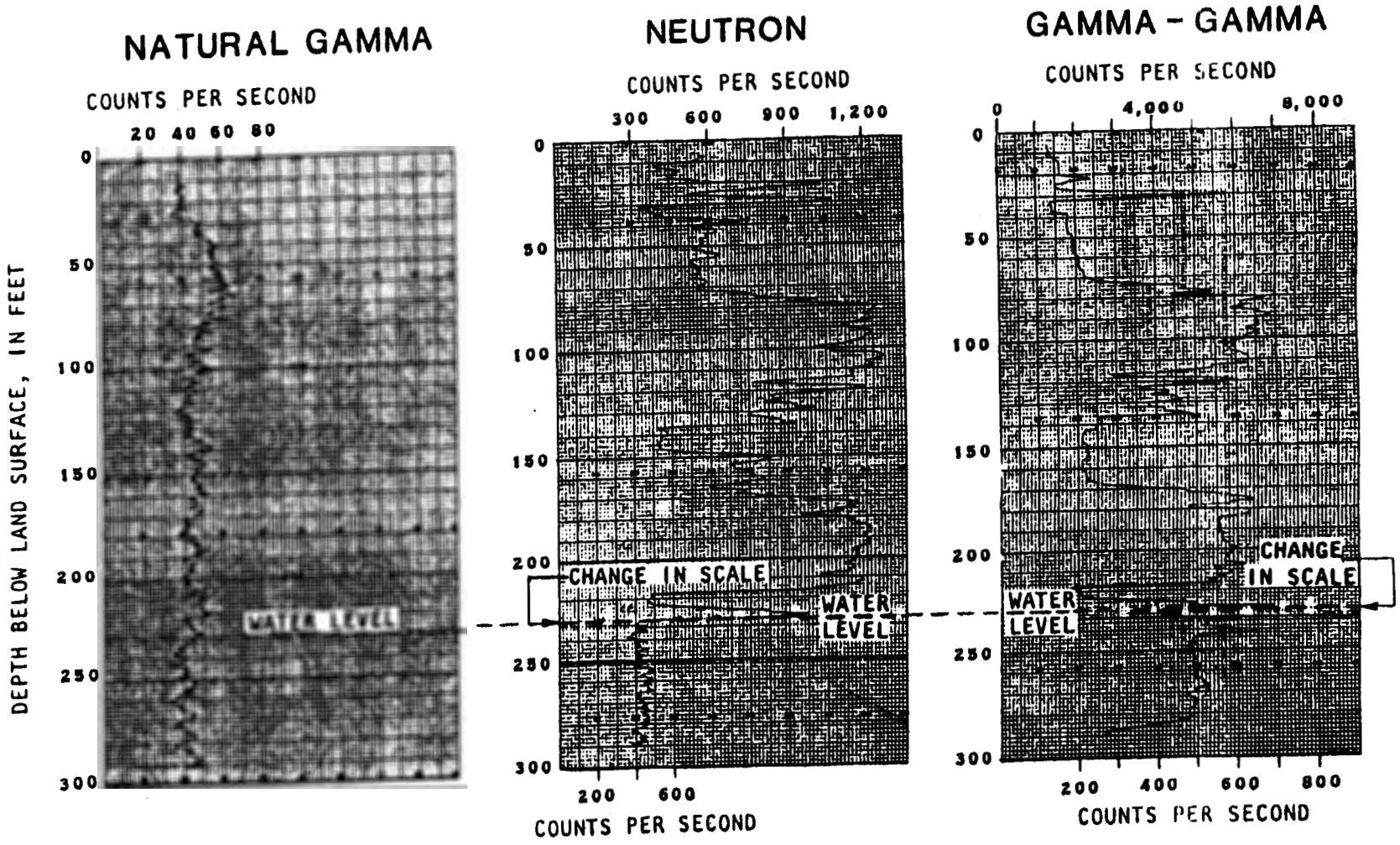

Figure 3.--Natural gamma, neutron, and gamma-gamma logs for test well TW2 (22S.06E.16.234) with casing.

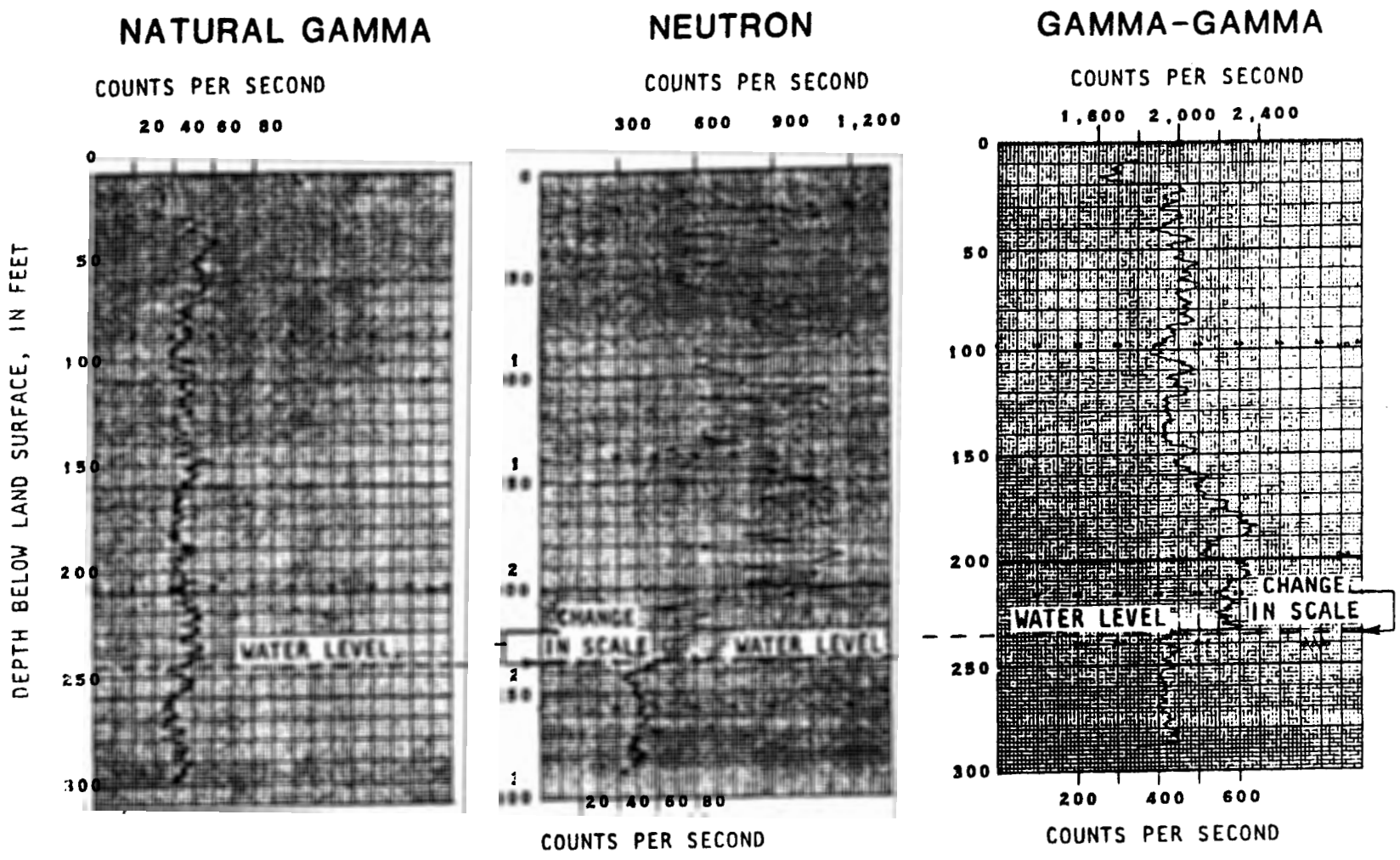

Figure 4.--Natural gamma, neutron, and gamma-gamma logs for test well TW3 (22S.06E.16.234A) with casing.

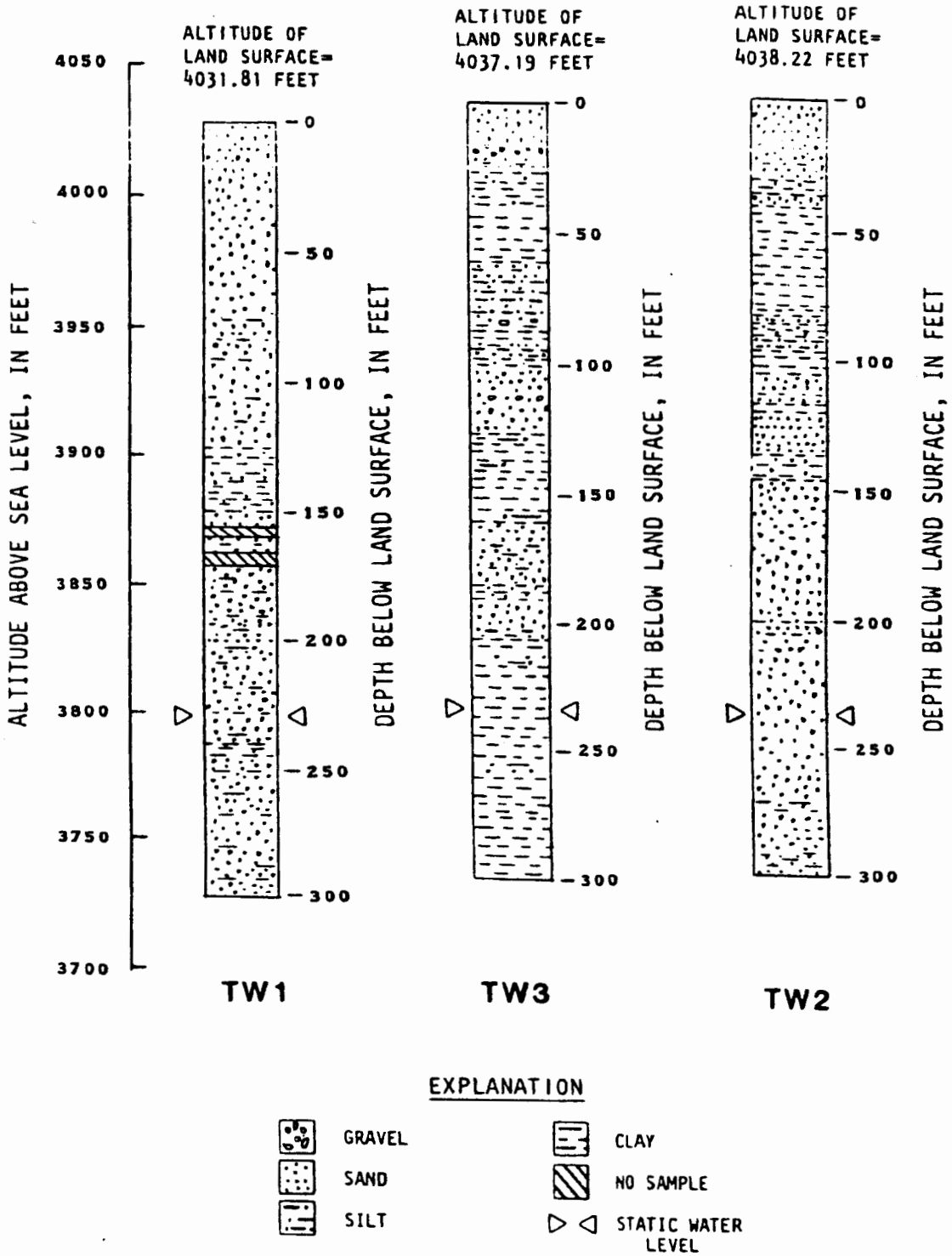

Figure 5.--Lithologic logs of test wells TW1, TW2, and TW3.

Table 2. Lithologic log for test well TW1 (22S.06E.16.233)

[Some samples were washed]

Lithology	Thickness (feet)	Depth interval below land surface (feet)
Sand, fine- to medium-grained; subrounded to well rounded, moderately well sorted; composed of quartz with a small amount of chert and dark (igneous and sedimentary) rock; abundant moderate-reddish-orange (10R 6/6) caliche; interval contains a greater amount of fine-grained sand, less caliche, and becomes well sorted with increasing depth.	10	0-10
Sand, fine- to coarse-grained; subrounded to well rounded, moderately sorted; composed of quartz with a very small amount of dark (igneous and sedimentary) rock; caliche present.	5	10-15
Sand, fine- to medium-grained; subrounded to well rounded, moderately to well sorted; composed of quartz with a very small amount of chert and dark (igneous and sedimentary) rock; some moderate-brown (5YR 4/4) clay occurs from 75 to 125 feet; caliche present throughout.	110	15-125
Clay, moderate-yellowish-brown (10YR 5/4), and fine- to medium-grained sand; subrounded, well sorted; sand composed of quartz and very small amounts of chert, feldspar, and dark (igneous and sedimentary) rock; less clay present from 135 to 140 feet; sand mostly fine grained from 140 to 145 feet; a small amount of soft, clayey caliche throughout interval.	25	125-150
Sand, fine- to medium-grained; subangular to subrounded, well sorted; composed of quartz with small amounts of dark rock and chert; pieces of moderate-reddish-orange (10R 6/6) caliche and some silt.	5	150-155

Table 2. Lithologic log for test well TW1 (22S.06E.16.233) - Continued

Lithology	Thickness (feet)	Depth interval below land surface (feet)
NO SAMPLE	5	155-160
Sand, fine- to medium-grained, and some moderate-brown (5YR 4/4) clay; moderately well sorted; sand is subangular to subrounded; composed of quartz and dark rock; caliche present.	5	160-165
NO SAMPLE	5	165-170
Sand, fine- to medium-grained, and some moderate-brown (5YR 4/4) clay; moderately well sorted; sand subangular to subrounded and composed of quartz with very small amounts of dark (igneous and sedimentary) rock; abundant caliche.	30	170-200
Silt to fine-grained sand; subangular, moderately well sorted; composed of quartz with small amounts of dark (igneous and sedimentary) rock and feldspar; abundant caliche.	5	200-205
Sand, fine- to medium-grained, and some moderate-brown (5YR 4/4) clay; moderately well sorted; sand subangular to subrounded and mainly composed of quartz; very little clay present from 225 to 230 feet; most sand fine grained from 235 to 240 feet; caliche throughout.	35	205-240

Table 2. Lithologic log for test well TW1 (22S.06E.16.233) - Concluded

Lithology	Thickness (feet)	Depth interval below land surface (feet)
Clay, moderate-brown (5YR 4/4), some fine- to medium-grained sand, and pieces of moderate-reddish-orange (10R 6/6) caliche; moderately sorted; sand subangular to subrounded and composed of quartz with a small amount of dark (igneous and sedimentary) rock.	5	240-245
Sand, fine- to medium-grained, and some moderate-brown (5YR 4/4) clay; moderately to well sorted; sand subangular to subrounded and composed of quartz with very small amounts of dark rock and feldspar.	55	245-300

Table 3. Lithologic log for test well TW2 (22S.06E.16.234)

Lithology	Thickness (feet)	Depth interval below land surface (feet)
Sand, medium-grained, and caliche; moderately sorted; sand subrounded to well rounded; composed of quartz, chert, and feldspar.	5	0-5
Sand, medium- to coarse-grained; subrounded to well rounded, well sorted; composed of quartz and small amounts of chert, feldspar, and granite; some caliche from 10 to 15 feet; less coarse-grained sand from 15 to 20 feet; some moderate-reddish-orange (10R 6/6) caliche throughout.	15	5-20
Sand, medium- to coarse-grained, and hard pieces of moderate-brown (5YR 4/4) clay; moderately well sorted; sand subrounded to well rounded; composed of quartz with small amounts of chert, feldspar, and granite; some fine-grained sand from 25 to 30 feet.	10	20-30
Clay, moderate-yellowish-brown (10YR 5/4), and some fine- to medium-grained sand; sand subrounded and mostly composed of quartz; clay contains moderate-reddish-orange (10R 6/6) caliche.	5	30-35
Sand, fine- to medium-grained; subrounded, well sorted; predominately composed of quartz; caliche abundant and ranges in color from white to yellowish grey (5Y 8/1) to moderate reddish orange (10R 6/6), and contains fine- to medium-grained sand.	5	35-40
Clay, moderate-yellowish-brown (10YR 5/4); well sorted; some caliche.	40	40-80
Sand, medium- to coarse-grained, caliche, and moderate-yellowish-brown (10YR 5/4) clay; moderately sorted; sand subrounded and composed of quartz with a small amount of chert.	5	80-85

Table 3. Lithologic log for test well TW2 (22S.06E.16.234) - Continued

Lithology	Thickness (feet)	Depth interval below land surface (feet)
Clay, pale-yellowish-brown (10YR 6/2), and very small amounts of fine-grained sand and pieces of caliche; well sorted.	5	85-90
Silt, moderate-yellowish-brown (10YR 5/4), and some very fine grained quartz sand; very well sorted.	5	90-95
Clay, moderate-yellowish-brown (10YR 5/4); very well sorted; hard pieces of caliche present from 100 to 105 feet.	10	95-105
Sand, fine- to medium-grained; subrounded to rounded, well sorted; composed of quartz with a little chert, feldspar, and dark rock; abundant caliche cement.	5	105-110
Sand, medium-grained, and some moderate-yellowish-brown (10YR 5/4) clay and hard pieces of caliche; moderately well sorted; sand subangular to subrounded and composed of quartz with some chert.	5	110-115
Clay, moderate-yellowish-brown (10YR 5/4), and hard pieces of caliche; moderately well sorted.	5	115-120
Sand, fine- to coarse-grained; subrounded to rounded, moderately well sorted; composed of quartz with some chert and feldspar; abundant caliche.	5	120-125
Sand, medium-grained; subrounded to rounded, very well sorted; composed of quartz and chert; abundant caliche cement on grains.	10	125-135

Table 3. Lithologic log for test well TW2 (22S.06E.16.234) - Concluded

Lithology	Thickness (feet)	Depth interval below land surface (feet)
Clay, moderate-yellowish-brown (10YR 5/4), and small amounts of fine- to medium-grained sand and caliche; sand content increases with depth.	10	135-145
Sand, medium-grained; subrounded to well rounded, well to very well sorted; composed of quartz with a small amount of chert and a dark-colored rock; interval contains moderate-reddish-orange (10R 6/6) and moderate-orange-pink (5YR 8/4) caliche; some fine-grained sand and silt occur from 205 to 210 feet; from 265 to 270 feet, most sand fine to medium grained; some moderate-yellowish-brown (10YR 5/4) clay present from 270 to 275 feet and from 290 to 300 feet.	155	145-300

Table 4. Lithologic log for test well TW3 (22S.06E.16.234A)

Lithology	Thickness (feet)	Depth interval below land surface (feet)
Caliche and very fine to medium-grained sand; moderately well sorted; sand angular to subrounded and composed of quartz with some granite, feldspar, igneous rock, and a small amount of biotite; some fine and clayey caliche.	5	0-5
Caliche and very fine to coarse-grained sand; moderately well sorted; sand angular to subrounded and composed of quartz with some granite, feldspar, igneous rock, and biotite; slightly less caliche than previous interval.	10	5-15
Pebbles up to 10 millimeters; subangular to rounded, poorly sorted; composed of caliche-cemented sandstone, quartz, and granite.	5	15-20
Sand, very fine to coarse-grained, caliche, and a very small amount of moderate-yellowish-brown (10YR 5/4) clay; moderately sorted; sand angular to subrounded and composed of quartz with some igneous rock and feldspar; caliche present as moderate-reddish-orange (10R 6/6) pieces and as white grain cement.	5	20-25
Clay, silty, moderate-yellowish-brown (10YR 5/4), and some very fine grained sand; well sorted; sand subangular to subrounded and mostly composed of quartz; abundant caliche.	5	25-30
Clay, moderate-yellowish-brown (10YR 5/4); very well sorted; interval from 35 to 40 feet is silty; caliche present throughout.	30	30-60

Table 4. Lithologic log for test well TW3 (22S.06E.16.234A) - Continued

Lithology	Thickness (feet)	Depth interval below land surface (feet)
Sand, very fine to very coarse grained, and a very small amount of hard, moderate-brown (5YR 3/4) clay; poorly sorted; sand subangular to subrounded and composed of quartz with some igneous rock, feldspar, granite, and metamorphic rock; caliche present as grain cement and as hard, white pieces.	5	60-65
Silt, moderate-yellowish-brown (10YR 5/4), and some very fine to fine-grained sand; well sorted; sand subangular to subrounded and predominately composed of quartz; a small amount of moderate-yellowish-brown (10YR 5/4) clay present from 70 to 75 feet; some of the sand from 75 to 80 feet is medium to coarse grained; abundant caliche cement throughout.	15	65-80
Caliche, moderate-orange-pink (5YR 7/4) clay, and very fine grained sand to granules; poorly sorted; grains angular to subrounded and composed of quartz, caliche-cemented sandstone, and some igneous and metamorphic rock.	5	80-85
Clay, silty, moderate-yellowish-brown (10YR 5/4), and some very fine to fine-grained sand; very well sorted; sand predominately subrounded and composed of quartz; contains caliche cement.	15	85-100
Sand, very fine to fine-grained; angular to subrounded, very well sorted; composed of quartz with some igneous and metamorphic rocks, feldspar, hornblende, and biotite; contains caliche cement and some silt.	10	100-110

REFERENCES

Compton, R.R., 1962, Manual of field geology: New York, John Wiley and Sons, Inc., 378 p.

Goddard, E.N., chm., and others, 1948, Rock-Color Chart: Washington, D.C., National Research Council (reprinted by Geological Society of America, 1951, 1963, 1970, 1975, 1979, 1980).

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APPENDIX D

USGS REPORT – 1992

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

WATER BALANCE AND GEOHYDROLOGY OF THE HAZARDOUS-WASTE DISPOSAL FACILITY, WHITE SANDS MISSILE RANGE, OTERO COUNTY, NEW MEXICO

By Cynthia G. Abeyta

Administrative Report

Prepared for the
U.S. DEPARTMENT OF THE ARMY,
WHITE SANDS MISSILE RANGE

Albuquerque, New Mexico

1992

United States Department of the Interior

GEOLOGICAL SURVEY

Water Resources Division
Pinetree Corporate Centre
4501 Indian School Road, NE, Suite 200
Albuquerque, NM 87110

November 25, 1992

Mr. Javier Mendoza
White Sands Missile Range
ATTN: STEWS-ES-E, Building T150
Environmental Services
White Sands Missile Range, NM 88002

Dear Mr. Javier Mendoza:

Enclosed are additional copies of the publication, "Water balance and geohydrology of the Hazardous-Waste Disposal Facility, White Sands Missile Range, Otero County, New Mexico." (Administrative Report) as requested. The report is currently in the review process for publication as a U.S. Geological Survey Water-Resources Investigations Report.

If you would like additional copies of the Administrative Report please feel free to contact our Publications Unit at 262-5319.

Sincerely,

Cynthia G. Abeyta

Cynthia G. Abeyta
Hydrologist

Encl. 3 copies

U.S. DEPARTMENT OF THE INTERIOR
MANUEL LUJAN, JR., *Secretary*
U.S. GEOLOGICAL SURVEY
Dallas L. Peck, *Director*

ADMINISTRATIVE REPORT

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
acre	0.004047	square kilometer
cubic-foot per day	0.02832	cubic-meter per day
foot	0.3048	meter
foot per mile	0.1894	meter per kilometer
foot squared per day	0.09290	meter squared per day
gallon	3.785	liter
gallon per minute	0.00006309	cubic meter per second
gallon per minute per foot	0.2070	liter per second per meter
inch	25.40	millimeter
mile	1.609	kilometer
ounce, fluid	0.02957	liter
ounce, dry	28.35	gram
pint	0.4732	liter
pound	4.536	kilogram
square mile	2.590	square kilometer

$$^{\circ}F = (1.8 \times {}^{\circ}C) + 32$$
$$^{\circ}C = ({}^{\circ}F - 32)/1.8$$

Sea level: In this report, "sea level" refers to the National Geodetic Vertical Datum of 1929--a geodetic datum derived from a general adjustment of the first-order level nets of the United States and Canada, formerly called Sea Level Datum of 1929.

WATER BALANCE AND GEOHYDROLOGY OF THE HAZARDOUS WASTE DISPOSAL FACILITY, WHITE SANDS MISSILE RANGE, OTERO COUNTY, NEW MEXICO

By Cynthia G. Abeyta

ABSTRACT

The Hazardous Waste Disposal Facility on White Sands Missile Range contains a landfill operated from 1971-81 containing various types of chemical wastes. The requirement of an evaluation of geohydrologic conditions of the Hazardous Waste Disposal Facility to determine the potential for migration of hazardous wastes buried in the site's landfill, through the uppermost aquifer to nearby water-supply wells or to surface-water bodies, has led to a geohydrologic investigation of the area.

A qualitative water balance of the Hazardous Waste Disposal Facility shows potential evaporation is more than five times the precipitation, which is the source of natural recharge to ground water at the facility. Most of the precipitation is consumed by evaporation except during periods of substantial precipitation. When precipitation is greater than potential evaporation, recharge to ground water might occur. The long-term rate of recharge at the facility was estimated to be 0.019 inch per year. This estimate is based on the assumption that the movement of soil water is strictly vertical. The heterogeneity of the bolson-fill deposits results in some lateral flow of water through the unsaturated zone, which affects the estimated recharge rate.

The bolson-fill deposits underlying the Hazardous Waste Disposal Facility consist of interbedded clay, silt, sand, and gravel. Depth to water at the facility is 230 feet below land surface; the water table slopes to the southwest at about 1 foot per mile in the area of the facility and at about 7 feet per mile northwest of the facility. There are no streams, ponds, or

lakes in the area; the nearest production well yielding potable water is 8 miles west of the study area.

Transmissivity values obtained from an aquifer test conducted on the site ranged from 1,000 to 1,300 feet squared per day. The specific capacity of the aquifer in the area tested was 2.10 gallons per minute per foot of drawdown. Estimated values of hydraulic conductivity for the assumed water-producing zone ranged from 12.5 to 16.3 feet per day.

The ground water in the area typically contains concentrations of dissolved solids ranging from 10,000 to 35,000 milligrams per liter and the water is considered very saline. Chemical analyses indicated concentrations of 110-160 micrograms per liter of manganese, 510-1,200 micrograms per liter of zinc, and 0.30-1.30 micrograms per liter of toluene in water from wells upgradient from the landfill. The concentration of lindane in water from a test well downgradient from the landfill was at the detection limit of 0.01 microgram per liter. The molecular formula, molecular weight, water solubility, and health effects for a number of the chemical compounds buried at the landfill are presented.

INTRODUCTION

The U.S. Department of the Army is evaluating geohydrologic conditions of the Hazardous Waste Disposal Facility on the White Sands Missile Range, New Mexico, to determine the potential for migration of hazardous wastes, which were buried in the landfill, through the uppermost aquifer to nearby water-supply wells or to surface water. In 1988, the U.S. Geological Survey, in cooperation with the U.S. Army, initiated a study in the White Sands Missile Range, Hazardous Waste Disposal Facility area (fig. 1) to identify geohydrologic conditions of the facility. Results of the study will be used by the U.S. Army to aid in determining ground-water-monitoring requirements at the facility as specified in 40 CFR Part 265.90C (U.S. Environmental Protection Agency, 1988b).

Purpose and Scope

This report presents the results of a 1-year study to identify geohydrologic conditions at and in the vicinity of the Hazardous Waste Disposal Facility, White Sands Missile Range. Specific objectives were to: (1) compile information on the characteristics of the chemical wastes buried in the landfill; (2) evaluate the water balance of precipitation, evaporation, surface-water inflow and outflow, and ground-water recharge and discharge; (3) describe geohydrologic characteristics of the unsaturated zone and the shallow aquifer; and (4) describe the quality of ground water in the vicinity of the facility.

The geohydrology of the Hazardous Waste Disposal Facility was characterized on the basis of existing data and new data collected during water years 1988 and 1989 (September 1988 through September 1989). Aquifer-test data and ground-water-quality data were obtained from four test wells; test well TW-4 was installed during this study (figs. 1 and 2). Water-quality data for wells at the facility were obtained during water year 1989.

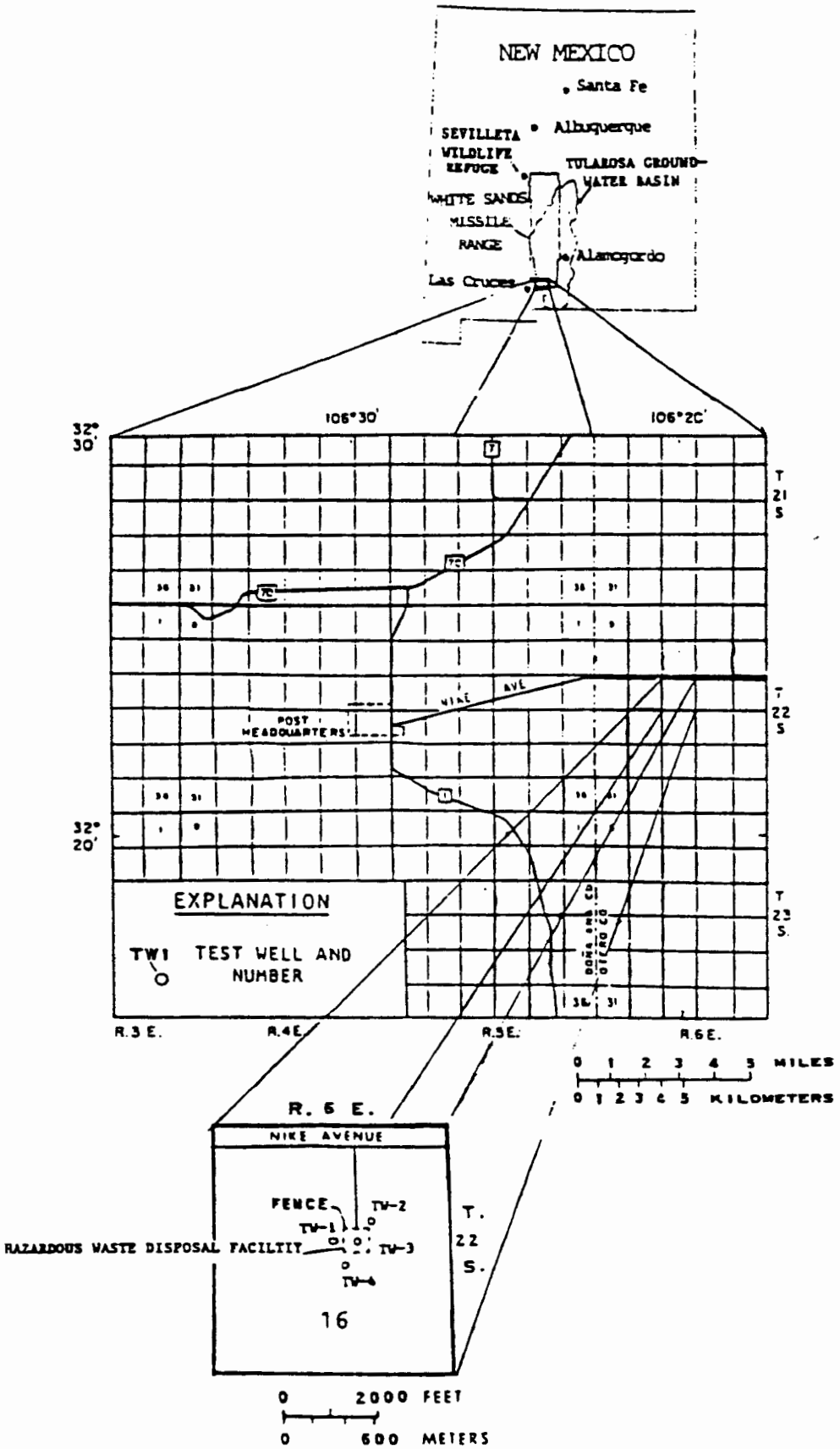

Figure 1.--Location of the Hazardous Waste Disposal Facility.

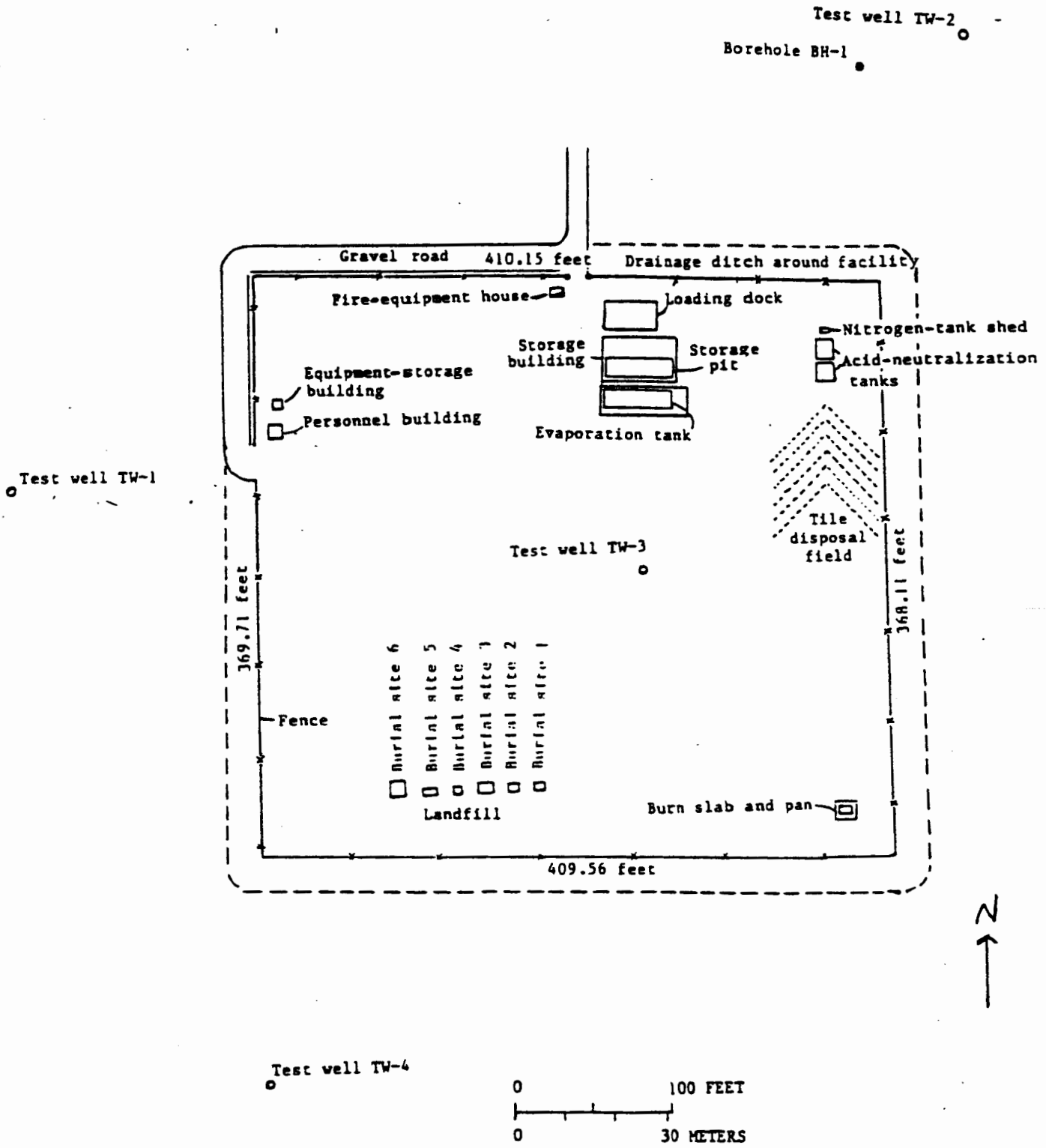

Figure 2.—Location of the landfill, test wells, and borehole at the Hazardous Waste Disposal Facility.

Borehole BH-1 was augured and soil samples were collected and analyzed to estimate recharge to the unsaturated zone (fig. 2). Recharge was estimated using the chloride mass-balance method (Mattick and others, 1987). Aquifer tests of the shallow aquifer were conducted to determine aquifer characteristics.

Description of the Study Area

The study area is the Hazardous Waste Disposal Facility located at the southern end of White Sands Missile Range, Otero County, New Mexico (fig. 1). The White Sands Missile Range, an area of about 3,400 square miles in south-central New Mexico, is in the southern part of the Tularosa ground-water basin. Initially constructed in June 1945, the White Sands Missile Range includes lands and facilities owned and operated by the U.S. Department of the Army, such as office buildings, base housing units, recreational facilities, and research and testing facilities operated and maintained by various government and private laboratories. The basic mission of the range is to support the development and testing of weapons systems. The White Sands Missile Range includes a large complex of test ranges, launch sites, impact areas, and instrumentation sites.

The Hazardous Waste Disposal Facility is about 8.5 miles east of the Post Headquarters, 35 miles northeast of Las Cruces, and 45 miles southwest of Alamogordo. Las Cruces and Alamogordo are the largest population centers in the region.

The Hazardous Waste Disposal Facility consists of a plot about 370 feet by 410 feet (fig. 2). Facilities are available for handling various types of hazardous wastes including a landfill with six burial sites, a burn slab and pan, evaporation tank, building for temporary storage of hazardous wastes,

a storage pit, acid neutralization tanks, and a tile disposal field. The landfill, for disposal of containerized chemical wastes, has been in use since the first chemical-waste burial occurred in April 1972. Additional burials occurred in June 1972, February 1974 and two burials in April 1976. The last burial was in October 1981.

The landfill was inactive from October 1981 to April 1989, when burial site 6 was excavated and the contents removed. In 1990, the remaining five burial sites were excavated and the contents removed. Presently (1992), no chemical wastes are buried at the landfill.

Well-Numbering System

The well-numbering system in this report uses the public-land survey method of township, range, and section location (fig. 3). The well number is divided into four segments divided by periods. The first segment indicates the township south of the New Mexico base line; the second indicates the range east of the New Mexico Principal Meridian; the third indicates the section within which the well is located. The fourth segment of the number indicates the 160-, 40-, and 10-acre tracts, respectively, in which the well is located. If two or more wells are within the same tract, consecutive letters, beginning with A, are added as suffixes to succeeding wells in the same tract.

Acknowledgments

The author acknowledges the assistance received from Fred Chavez of the White Sands Missile Range Environmental Department in facilitating equipment installation and providing valuable information about the Hazardous Waste Disposal Facility. George Basabilvazo of the U.S. Geological Survey, Las Cruces office, provided lithologic descriptions for soil samples collected at borehole BH-1.

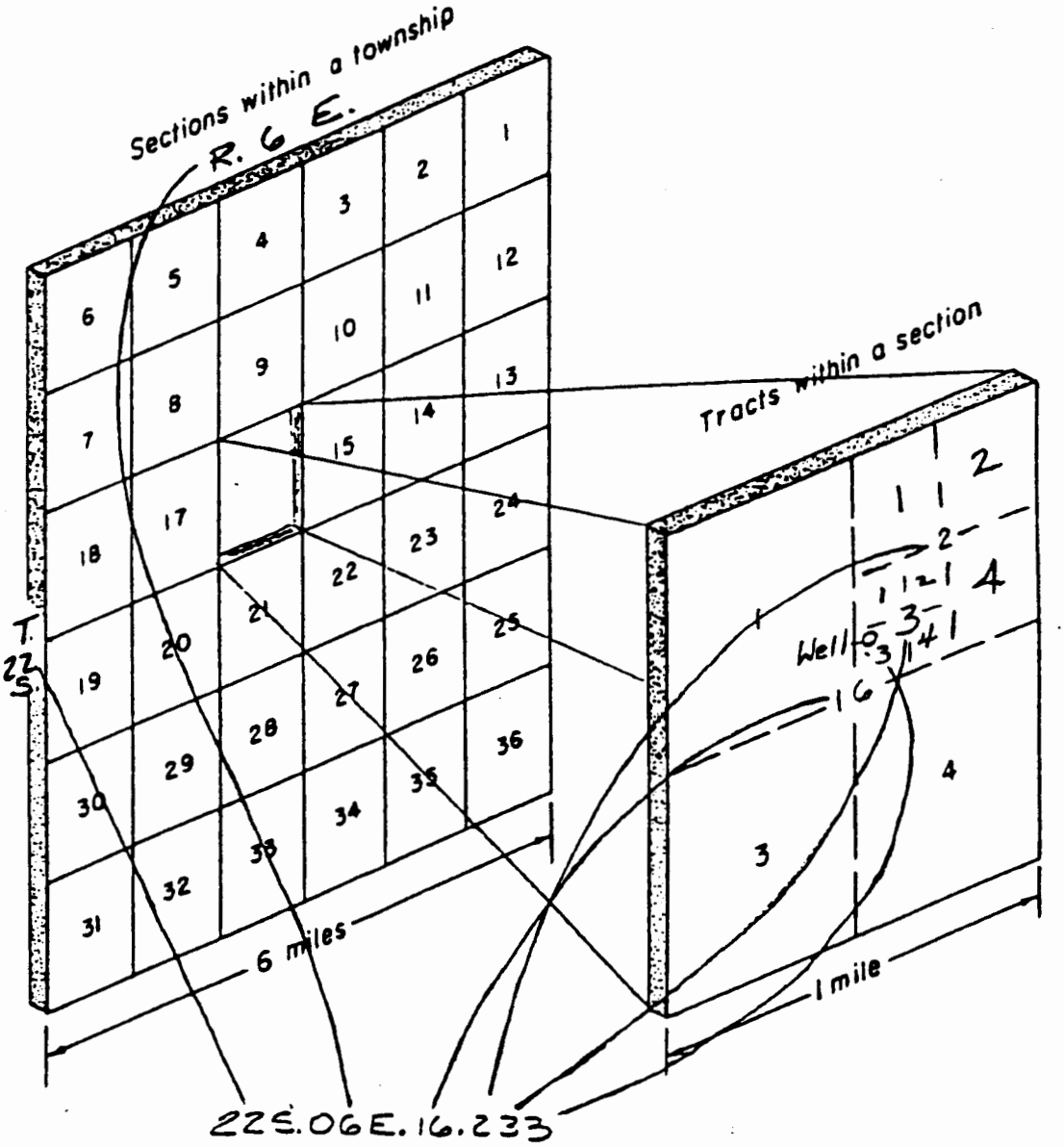

Figure 3.--Well-numbering system.

CHEMICAL WASTES BURIED AT THE LANDFILL

From April 1972 to October 1981, about 250 different types of identified chemical compounds, 126 unknown chemical compounds, and other wastes such as paper, broken glass, and plastic debris were buried at the landfill (table 1). The chemical wastes were in solid or liquid form and were individually containerized in plastic, metal, glass, cardboard, or paper. The chemical wastes and debris were further encapsulated in steel or polyvinylchloride (PVC) vessels in which the individual containers were separated by an inert absorbent or cushion material. The ends of the vessels were sealed with caps and sealant. Burial sites 1 through 5 contained the steel vessels. The PVC vessels were further contained in 55- or 85-gallon steel drums. The void spaces within each drum were filled with concrete and each drum was sealed with a leak-proof lid. Burial site 6 contained the drums. The steel vessels and drums were placed in excavations with approximate dimensions of 10 feet x 10 feet x 10 feet. The spacing between each of the six sites was 10 feet. Each site was marked with a concrete pad identifying the burial date, chemical compounds contained, and quantity.

When the six burial sites were excavated in April 1989 and in 1990, the contents were removed, inventoried, and screened by a contractor for White Sands Missile Range. About two-hundred and fifty different types of chemical compounds were identified (table 1). In addition, one-hundred and twenty-six chemical compounds were not identified but were screened for disposal (Harrison Orr, Environmentalist, White Sands Missile Range, oral commun., 1992) (table 1).

Table 1.--Records of chemical compounds buried in the landfill in the Hazardous Waste Disposal Facility, White Sands Missile Range

Burial site	Burial date	Chemical compound	Container	Physical state	Quantity
1	04-13-72	Aldrin, 0.5% active; 99.5% inert	plastic	solid	2 pounds
		Aldrin	plastic	solid	10 pounds
		Alpha isomer of 2-Carbomethoxy-1-methylvinyl dimethyl phosphate, 2% active; 98% inert	glass	solid	2x8 ounces
		Alpha isomer of 2-Carbomethoxy-1-methylvinyl dimethyl phosphate, 2% active; 98% inert	glass	solid	1 pound
		Aniline	plastic	liquid	10 ounces
		Azodrin	plastic	liquid	1 cup
		1,1-Bis(chlorophenyl-)-2,2,2-trichloro-ethanol, 18.5% active; 81.5% inert	glass	liquid	1 pint
		2,4-Bis(isopropylamino)-6-methyl-thio-s-triazine, 80% active; 20% inert	cardboard	solid	4 pounds
		N-Butyl-n-ethyl-α,α,α-trifluoro-2,6-dinitro-p-toluidine, 2.5% active; 97.5% inert	plastic	solid	2x8 ounces
		Calcium hydroxide, copper sulfate, charcoal, potassium alum, iodoform, flowers of sulfer, tannic acid	plastic	solid	6 ounces
		Captan, 75% active; 25% inert	plastic	solid	1 pound
		Carbophenothion, 25% active; 75% inert	plastic	solid	3 pounds
		2,4-D	plastic	liquid	3x1 quart
		2,4-D, 1%; 99% inert	plastic	solid	2 pounds
		DDT, 10% active; 90% inert	metal	solid	62x3 ounces
		DDT, 10% active; pyrophyllite 90%	metal	solid	5 pounds
		DDT, 10% active; 90% inert	metal	solid	3x4 pounds
		DDT, 50% active; 50% inert	plastic	solid	2 pounds
		3,6 Dichloro-o-anisic acid 0.1% active; 99.9% inert	plastic	--	1 pound
		1,1-Dichloro 2,2 bis(p-ethyphenylethane), 0.2% active, 2,2-dichlorovinyl dimethyl phosphate, 0.01%, 0,0 dimethyl-(2-chloro-4-nitrophenyl, 0.1% active; 99.49% inert	plastic	solid	12 ounces
		Dieldrin 5% active; 95% inert	plastic	solid	2 pounds
		Dieldrin 1.5 exclusive xylene base	plastic	liquid	1 gallon
		0,0-Diethyl 0-(2-isopropyl-4-methyl-6-pyrimidinyl)phosphorothioate(Diazinone), 50% active	plastic	solid	1x3 pounds 1x6 ounces
		Dimethamine salt of 3,6-dichloro-o-anisic acid, 49% active; 51% inert	plastic	liquid	5 ounces
		Dimethylamine salts of 2,4-dichlorophenoxy acetic acid, 1.22% active; 98.78% inert	plastic	solid	1 pound
		0,0-Dimethyl 5-[4 oxo-1,2,3,-benzotriazin-3(4H)-ylmethyl] phosphorodithioate, 50% active; 50% inert	plastic	solid	3 pounds
		0,0-Dimethyl 5-[4 oxo-1,2,3-benzotria-3(4H)-yimethyl] phosphorodithioate	plastic	solid	2 pounds

Table 1.--Records of chemical compounds buried in the landfill in the Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Burial site	Burial date	Chemical compound	Container	Physical state	Quantity
1 (continued)	04-13-72	Dimethyl ester of Tetrachloroterephtholic acid, 75%	plastic	solid	2 pounds
		Dimethyl ester of Tetrachloroterephtholic acid, 75% active; 25% inert	plastic	solid	3 pounds
		Dimethyl Phosphate of 3-hydroxy-N-methyl cis-crotomamide, 56% active; 44% inert	plastic	liquid	6 ounces
		Dimethyl Phosphate of α-methylbenzyl-3-hydroxy-cis-crotonate, 3% active	cardboard	solid	4 pounds
		Dinitro(1-methyl heptyl)phenyl crotonate, 22.5% active; Dinitro(1-methyl heptyl) phenol, 2.5%; 75% inert	plastic	solid	1 pound
		Isoparaffinic Petroleum Hydrocarbons	plastic	liquid	1 cup
		Kelthane 35 1,1 Bis(chlorophenyl)-2,2,2 trichloroethanol, 35% active; 65% inert	plastic	solid	4 pounds
		Lead Arsenate, 96% active; 4% inert	cardboard	solid	1x2 pounds
		Lead Arsenate	metal	solid	2x1 pound
		Lead Arsenate	plastic	solid	2 pounds
		Lead Arsenate, 95% active; 5% inert	plastic	solid	2 pounds
		Lead Arsenate, 96% active; 4% inert	metal	solid	2x1 pound 3X1/2 pound
		Lithium 2,4-Dichlorophenoxyacetate, 95% active; 5% inert	cardboard	solid	3x1 pound
		Malathion	plastic	liquid	5x1 pint
		Malathion, 25% active; 75% inert	plastic	solid	7x2 pounds
		Malathion, 19% active, DDT, 10% active, Ethylene Dichloride, 50% active; 21% inert	glass	liquid	12 ounces
		2-Methoxy-3-6-dichlorobenzoic acid dimethylamine salt, 0.1% active; 99.9% inert	plastic	solid	1 pound
		2-Methoxy-4,6-bis(isopropylamino)-s-triazine, 25% active; 75% inert	plastic	solid	1/2 pound
		Phenyl Mercuric Acid, 0.42% active; Thiram, 2.95% active; 96.63% inert	plastic	solid	6 ounces
		O,O'Pictho-p-nitrite phenol thiosphate, 46.5% active, xylene, 48.5% active; 5% inert	plastic	liquid	1 pint
		Propazine	plastic	solid	3 pounds
		Sevin: Carbaryl(1-naphthyl-N-methyl-carbonate), 5% active; 95% inert	plastic	solid	3x3 pounds
		Sevin: Carbaryl(1-naphthyl N-methyl-carbonate), 5% active; 95% inert	plastic	solid	4x1 pounds
		Toxaphene, 59% active, aromatic petroleum derivative solvent, 31.33% active; 9.67% inert	glass	liquid	1 quart
		Toxaphene, 50% active; 50% oil	plastic	liquid	1 quart
		Trifluralin(α,α,α-trifloro-2,6-dinitro-N,N-dipropyl-p-toluidine, 5% active; 95% inert	plastic	solid	1 pound

Table 1.--Records of chemical compounds buried in the landfill in the Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Burial site	Burial date	Chemical compound	Container	Physical state	Quantity
1 (continued)	04-13-72	(α,α,α-Trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine), 44.5% active; 55.5% inert	plastic	liquid	16 ounces
		(α,α,α-Trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine), 44.5% active; 55% inert, H_2O	metal	liquid	16 ounces
		Unknown 1	glass	solid	12 ounces
		Unknown 1 (water soluble)	glass	solid	4x2 pounds
		Unknown 2	plastic	solid	12 ounces
		Unknown 3	plastic	solid	4 ounces
		Unknown 4	plastic	solid	2 pounds
		Unknown 5	plastic	solid	4 ounces
		Unknown 6	plastic	solid	6 ounces
		Unknown 7	plastic	solid	3/4 pound
		Unknown 8	plastic	solid	1 pound
		Unknown 9	plastic	solid	1 pound
		Unknown 10	plastic	solid	1 pound
		Unknown 11	plastic	solid	2 ounces
		Unknown 12	plastic	liquid	1 cup
		Unknown 13	plastic	solid	3 ounces
		Unknown 14	plastic	solid	10 ounces
		Unknown 15	plastic	solid	1 pound
		Unknown 16	plastic	liquid	1 quart
		Unknown 17	plastic	solid	8 ounces
		Unknown 18	plastic	liquid	1 pint
		Unknown 19	plastic	liquid	1 quart
		Unknown 20	plastic	solid	1 ounce
		Unknown 21	glass	solid	4 ounces
		Unknown 22	glass	solid	3 ounces
		Unknown 23	glass	solid	4 ounces
		Unknown 25	glass	solid	4 ounces
		Unknown 26	glass	solid	3 ounces
		Unknown 27	plastic	solid	2 ounces
		Unknown 28	plastic	solid	1 pound
		Unknown 29	plastic	solid	1 pound
		Unknown 29	glass	solid	2 ounces
		Unknown 30	plastic	solid	4 ounces
		Unknown 31	glass	solid	4 ounces
		Unknown 32	plastic	liquid	1 quart
		Unknown 32	glass	liquid	1 cup
		Unknown 34	plastic	liquid	1 pint
		Unknown 35	plastic	liquid	1 pint
		Unknown 36	plastic	liquid	1 pint
		Unknown 37	plastic	liquid	1 pint
		Unknown 38	plastic	solid	8 ounces
		Unknown 39	plastic	solid	12 ounces
		Unknown 41	plastic	liquid	1 pint
		Unknown 42	plastic	liquid	1 pint
		Unknown 43	plastic	solid	11 ounces

Table 1.--Records of chemical compounds buried in the landfill in the Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Burial site	Burial date	Chemical compound	Container	Physical state	Quantity
1 (continued)	04-13-72	Unknown 45	plastic	solid	1 ounce
		Unknown 46	plastic	solid	1 pound
		Unknown 47	plastic	solid	6 ounces
		Unknown 48	glass	solid	2 ounces
		Unknown 49	glass	liquid	1 cup
		Unknown 50	glass	solid	3 ounces
		Unknown 51	glass	solid	2 ounces
		Unknown 52	glass	solid	1/4 pound
		Unknown 53	glass	solid	1 ounce
		Unknown 54	glass	solid	3 ounces
		Unknown 55	glass	solid	1/4 pound
		Unknown 56	glass	solid	1/4 pound
		Unknown 57	glass	solid	6 ounces
		Unknown 58	glass	solid	1/4 pound
		Unknown 59	glass	solid	2 ounces
		Unknown 60	plastic	solid	6 ounces
		Unknown 60	plastic	solid	2x8 ounces
		Unknown 60	glass	solid	2x8 ounces
		Unknown 60	plastic	solid	4 pounds
		Unknown 61	plastic	liquid	1 pint
		Unknown 62	plastic	liquid	1 pint
		Unknown 63	plastic	solid	6 ounces
		Unknown 64	plastic	solid	8 ounces
		Unknown 65	plastic	solid	12 ounces
		Unknown 66	plastic	solid	6 ounces
		Unknown 67	plastic	solid	4 ounces
		Unknown 68	plastic	solid	4 ounces
		Unknown 69	plastic	liquid	6 ounces
		Unknown 70	plastic	solid	6 ounces
		Unknown 71	plastic	liquid	1 quart
		Unknown 72	plastic	solid	1 pound
		Unknown 73	plastic	solid	1 pound
		Unknown 74	plastic	solid	4 ounces
		Unknown 75	plastic	solid	1 pound
		Unknown 76	plastic	solid	1 pound
		Unknown 77	plastic	liquid	1 quart
		Unknown 78	plastic	solid	1 pound
		Unknown 79	plastic	solid	8 ounces
		Unknown 80	plastic	solid	6 ounces
		Unknown 81	plastic	solid	3/4 pound
		Unknown 106	glass	--	4 ounces
		Unknown 126	plastic	solid	12 ounces
		Unknown 128	glass	--	12 ounces
		Broken glass, paper, plastic debris	plastic	solid	60 pounds
		Broken glass	glass	solid	3 pounds
		Plastic bags; visqueen	plastic	solid	5 pounds
		Paper, plastic debris	plastic	solid	35 pounds

Table 1.--Records of chemical compounds buried in the landfill in the Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Burial site	Burial date	Chemical compound	Container	Physical state	Quantity
2	06-23-72	3-(α-acetonylbenzyl)-4-hydroxycoumarin	plastic	solid	8 ounces
		1,1-Bis(chlorophenyl-)-2,2,2-trichloroethanol, 35% active; 65% inert	plastic	solid	4 pounds
		Chlordane, 10% active; 90% inert	metal	solid	2x1/2 pound
		Chlordane, 10% active; 90% inert	plastic	solid	4 pounds
		Chlordane, 44% active; 56% inert	glass	solid	6 ounces
		Cyanide solution	plastic	liquid	1 quart
		Cyanide solution	plastic	liquid	9x1 gallon
		Cyanide solution in water	plastic	liquid	5x1/2 gallon
		Cyanide/H_2O solution	plastic	liquid	3x1 gallon
		2,4-D, 1% active; 99% inert	plastic	solid	3 pounds
		2,4-D, 40% active; 60% inert	metal	liquid	1 gallon
		2,4-D, 49.5% active; 50.5% inert	metal	liquid	1 quart
		Diazinon, 50% active; 50% inert	plastic	solid	2x3 pounds
		Endosulfan	paper	solid	5 pounds
		Hydrochloric Acid solution	plastic	liquid	1/2 gallon
		Malathion, 4% active; 96% inert	glass	solid	10 ounces
		Malathion, 5% active; 95% inert	plastic	solid	2 pounds
		Malathion, 5% active; 95% inert	glass	solid	1 pound
		Malathion, 25% active; 75% inert	plastic	solid	10 pounds
		Malathion, 50% active; aromatic petroleum derivative solvent, 33% active; 17% inert	glass	liquid	1 pint
		Malathion, 50% active; Xylene, 42% active; 8% inert	glass	liquid	12 ounces
		Malathion/aromatic hydrocarbon	glass	liquid	6 ounces
		Nonvolatile Alkanolamine salts of 2,4-D	metal	liquid	1/2 gallon
		N-Oleyl 1,3-propylene diamine salt of 2,4-D, 61.6% active, in inert oil	plastic	liquid	1 quart
		Sulfuric Acid solution	plastic	liquid	1/2 gallon
		Unknown 84 (dilute acid)	plastic	liquid	2 gallon
		Unknown 91	metal	solid	8 ounces
		Unknown 93	glass	liquid	1 pint
		Unknown 95	plastic	liquid	10 ounces
		Unknown 96	glass	liquid	16 ounces
		Unknown 97	glass	liquid	12 ounces
		Broken glass	plastic	solid	40 pounds
		Empty glass, metal & plastic containers	-	solid	20 pounds
3	02-21-74	Aniline	glass	liquid	1 quart
		Arecoline Hydrobromide	glass	solid	50 grams
		Bay 9015	glass	liquid	2x50 milliliters
		Bayer Aspirin	glass	solid	3x50 grams

Table 1.--Records of chemical compounds buried in the landfill in the Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Burial site	Burial date	Chemical compound	Container	Physical state	Quantity
3 (continued)	02-21-74	1,4 Bis-trichloromethylbenzol, 15% active; 85% inert	plastic	solid	500 grams
		Bunamidine Hydrochloride	glass	solid	3 ounces
		Carbaryl insecticide (1-naphthyl-N-methyl-carbamate), 5% active	plastic	--	1 pound
		Carbaryl(1-naphthyl N-methylcarbamate), 5% active; 95% inert	plastic	solid	3 pounds
		Carbaryl(1-naphthyl N-methylcarbamate), 50% active; 50% inert	metal	solid	1/2 pound
		1-Chloronaphthalene	glass	liquid	100 grams
		Cholin Esterase Inhibitor	plastic	solid	200 grams
		Clioxanide, 4%, in H_2O	plastic	liquid	1/2 gallon
		Copper Sulfate, 2.4 gm/oz, Sodium Arsenite, 0.24 gm/oz, Picric Acid, 0.3 gm/oz, in H_2O	plastic	liquid	1 quart
		Copper(ous) Cyanide	glass	solid	1 pound
		Dieldrin, 17% active; 83% inert	plastic	solid	1 quart
		N,N Dimethyl-2,2 diphenylacetamide, 80% active	plastic	solid	2 pounds
		Heptachlor, 0.225% active; 99.775% inert	plastic	solid	1 pound
		Heptachlor, 25% active; 75% inert	metal	solid	1 pound
		Hexachloroethane	glass	solid	200 grams
		Hexachlorophene	metal	solid	1 pound
		Indodebutyric Acid, 0.00004% active; 99.99996% inert	glass	liquid	12 ounces
		Kelthane Solution	glass	liquid	1 pint
		d-Limonene	glass	liquid	6 ounces
		Linoleic Acid	glass	liquid	12 ounces
		Malathion, 50% active; 50% inert	glass	liquid	2x12 ounces
		Malathion, 57% active; 43% inert	plastic	solid/ liquid	3x1 ounce
		Nickel/Platinum-H_2O solution	glass	liquid	1/2 gallon
		5-Nitro-2-furaldehyde Semioxamazone	plastic	solid	1 pound
		Petroleum oil	glass	liquid	1 pint
		o-Phthalidicarboxaldehyde	glass	solid	25 grams
		Potassium Cyanide	glass	solid	1x1 pound 1x4 ounce
		Potassium Nickel Cyanide	plastic	solid	1 pound
		Rafoxanide 2.27%/H_2O	plastic	liquid	1 quart
		Silver Cyanide	glass	solid	2x1 pound
		Sodium Cyanide	glass	solid	4 pounds
		Sodium Cyanide	glass	solid	14 ounces
		Sodium Hydroxide	plastic	solid	3x2 pounds

Table 1.--Records of chemical compounds buried in the landfill in the Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Burial site	Burial date	Chemical compound	Container	Physical state	Quantity
3 (continued)	02-21-74	Solution of Copper Sulfate, Sodium Arsonite and Nicotine	glass	liquid	1 pint
		Streptomycin Sulfate	glass	solid	3 grams
		Tetrachlorethylene capsules	glass	liquid	12 ounces
		Thick resin	glass	liquid	50 milliliters
		Toxaphene, 1% active; 99% inert	plastic	solid	5x1 pound 3x1/2 pound
		Trichlorphon/H_2O for pigs	glass	--	2x50 milliliters
		Zinc Cyanide	glass	solid	2x1 pound
		Unknown 127	glass	--	2 ounces
		Unknown 130	plastic	solid	8 ounces
		Unknown 131	plastic	solid	8 ounces
		Various Livestock Treatments (Drugs)	plastic	solid/ liquid	9x1 ounces
		Cut up plastic bottle	plastic	solid	2 pounds
		Dirt/clay	glass	solid	1 pound
		Dry corn kernels	plastic	solid	4 ounces
		H_2O/Soap solution	metal	liquid	4 ounces
		Rust from metal drum	plastic	solid	1 pound
4	04-16-76	DDT, 75% active; 25% inert	plastic	solid	10 pounds
5	04-22-76	Allylacetate	glass	--	2x50 milliliters
		Ammonium Hydrosulfide	glass	liquid	20 milliliters
		Arsenic contaminated Chromic Acid solution	plastic	liquid	1/2 gallon
		Brucine	glass	solid	25 grams
		Chlorine solution in water	glass	liquid	3 ounces
		Chromium Oxide	glass	solid	1 pound
		Crotonaldehyde	glass	--	6 ounces
		N-Diethylaniline	glass	liquid	12 ounces
		1,5-Diphenyl-3-thiocarbohydrozide	glass	solid	20 grams
		N-Ethyl-a-naphthylamine	glass	liquid	--
		Ethyl Cyanide	glass	liquid	4 ounces
		Ethyl Salicylate	glass	liquid	1 pint
		Ethyl Salicylate	glass	liquid	30 milliliters
		Ferric Chloride solution pH=3-4	plastic	liquid	4x1 gallon
		Formaldehyde solution, 37.5%	glass	liquid	16 ounces
		Glycerol	glass	liquid	12 ounces
		Iron Oxide	plastic	solid	1 pound
		Isobutyraldehyde	glass	liquid	12 ounces
		Isopentyl Salicylate	glass	liquid	12 ounces
		Liquid Resin	metal	liquid	6 ounces
		Mercuric Nitrate solution	glass	liquid	10 ounces
		Mercurous Chloride	glass	solid	2 x 1/4 pound
		Mercurous Perchlorate	glass	solid	4 ounces

Table 1.--Records of chemical compounds buried in the landfill in the Hazardous Waste Disposal Facility, White Sands Missile Range-Continued

Burial site	Burial date	Chemical compound	Container	Physical state	Quantity
5 (continued)	04-22-76	Mercury Chloride	plastic	solid	32 grams
		Mesityl Oxide	glass	liquid	1 quart
		Methylene Blue	glass	liquid	30 milliliters
		Nitron	glass	solid	2x10 grams
		2,4 Pentanedion	glass	liquid	5 ounces
		o-Phthalidicarboxaldehyde	glass	solid	75 grams
		Polyvinyl Alcohol	glass	solid	1/2 pound
		Polyvinyl Alcohol	glass	solid	100 grams
		Polyvinyl Alcohol	glass	solid	6 ounces
		Polyvinyl Resin	glass	solid	2x1 ounces
		Pulegone	glass	liquid	30 milliliters
		Synthetic Resin (Permount)	glass	--	4x4 ounces
		Trace Ferric Chloride contaminated diatomaceous earth	plastic	solid	50 pounds
		Unknown 120	glass	solid	2 ounces
		Unknown 124	plastic	liquid	1 gallon
		Unknown 125	plastic	liquid	1 gallon
		Unknown 129	glass	liquid	1 quart
		Unknown 130	glass	--	2 ounces
		Paper, plastic debris	plastic	solid	10 pounds
6	10-09-81	Acacia powder	glass	solid	8 ounces
		Acetamide	glass	solid	50 grams
		Acidic Copper solution	glass	liquid	11x2 ounces
		Acidic Rhodium solution	glass	liquid	1 ounce
		Alizarin Cyanone green dye	glass	solid	100 grams
		Alizarin Red	glass	solid	10 grams
		Alizarine Sodium Monosulfonate	glass	solid	6 ounces 3/4 pound
		1-Allyl-2-thiourea	glass	solid	4 ounces
		Alodine	plastic	solid	1 pound
		Aluminum Chloride	glass	solid	2x1 pound 2x1/2 pound
		Aluminum Potassium Sulfate	metal	solid	2 ounces
		Aluminum Quinolate	glass	solid	50 grams
		Aluminum Sulfate	glass	solid	4 ounces 1/2 pound
		Amberlite IR-120 ion exchange resin	glass	solid	4 ounces
		5-Amino-2-naphthalene-sulfonic acid	glass	solid	200 grams
		Ammonium Chloride	glass	solid	1 pound
		Ammonium Molybdate solution	glass	liquid	16 ounces
		Aniline	glass	solid	1/4 pound
		Arsenic Trioxide solution	glass	liquid	1/2 gallon
		Ascarite Silica	glass	solid	4 ounces

Table 1.--Records of chemical compounds buried in the landfill in the Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Burial site	Burial date	Chemical compound	Container	Physical state	Quantity
6 (continued)	10-09-81	Barium Chloranilate	glass	solid	2x25 grams
		Barium Chloride	glass	solid	15 grams
		Barium Diphenylamine Sulfonate	glass	solid	10 grams
		Barium Diphenylamine Sulfonate	glass	solid	1 ounce
		Benzil	glass	solid	100 grams
		Benzoic Acid	glass	solid	14 ounces
		Benzoic Acid	glass	solid	1/2 pound
		Black Dye	glass	solid	6 ounces
		Black Dye	glass	--	3 ounces
		Black grease	glass	solid	1 ounce
		Boric Acid	glass	solid	1 pound
		Bromobenzene (mono)	glass	--	1 pint
		Bromonaphthalene	glass	liquid	50 grams
		α-Bromonaphthalene	glass	liquid	50 grams
		1-Bromonaphthalene	glass	liquid	25 grams
		2-Bromonaphthalene	glass	solid	10 grams
		Bromothymol Blue	glass	solid	1 ounce
		Bromothymol Blue	glass	solid	5 grams
		2,3-Butanedione	glass	solid	15 grams
		Cadmium Propionate	glass	solid	100 grams
		Calcium Oxide	metal	solid	3 pounds
		Carbopol Resin	plastic	solid	12 ounces
		Cellulose Gum	metal	solid	12 ounces
		Chloroacetic Acid Sodium salt	glass	solid	2 pounds
		Chloroform	glass	liquid	1/2 gallon
		Chromate coating	--	solid	8 pounds
		Chromic Acid/Sulfuric Acid solution	glass	liquid	1/2 gallon
		Chromium Sulfate	glass	solid	4 ounces
		Chromium, Nickel, Copper, Silver solution	glass	liquid	4x2 ounces
		Citric Acid	glass	solid	100 grams
		Colchicine	glass	solid	100 milligrams
		Congo Red	glass	solid	1 ounce
		2,4-Diaminophenol Dihydrochloride	glass	solid	2x1 1/2 pounds
		2,5-Dichloro-3,6-dihydroxy-p-benzoquinone Mercury derirative	glass	solid	3x2 ounces
		1,5 Dihydroxyanthraquinone	glass	solid	25 grams
		4,5-Dihydroxy-2,7-napthalene Disulfonic Acid Disodium salt	glass	--	50 grams
		Diiodomethane	glass	liquid	2 ounces
		p-Dimethylaminobenzalrhodamine	glass	solid	1 ounce
		p-(p-Dimethylaminophenylazo) benzene Arsonic Acid	glass	solid	10 grams
		3,3'-Dimethyl-1,1'-diphenyl-(4,4'-bi-2-pyrazoline)5,5'dione	glass	solid	3 ounces
		4,4 Dinitrodiphenyl	--	solid	25 grams

Table 1.--Records of chemical compounds buried in the landfill in the Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Burial site	Burial date	Chemical compound	Container	Physical state	Quantity
6 (continued)	10-09-81	9,10-Diphenylanthracene	glass	solid	5 grams
		Diphenylbenzidine	glass	solid	2 ounces
		1,1-Diphenylhydrazine Hydrochloride	glass	--	3 ounces
		1,1-Diphenylhydrazine Hydrochloride	glass	solid	15 grams
		Diphenylmethane	glass	solid	100 grams
		2,5-Diphenyloxazole	glass	solid	25 grams
		Diphenylthiocarbozone	glass	solid	40 grams
		Diphenylthiooxazone	glass	solid	10 grams
		Dithiooxamide	glass	solid	10 grams
		Egg Albumen	cardboard	solid	5 pounds
		Fluoroanthene	glass	solid	100 grams
		Formaldehyde solution	glass	liquid	10 ounces
		Fuchsin	metal	solid	1 ounce
		Furil Dioxime	glass	solid	1 ounce
		Glycerol	glass	liquid	1 ounce
		Hydrazine Sulfate	glass	solid	1 pound
		Hydrolyzed Polyvinyl Alchohol	glass	solid	1 pound
		Hydroquinone	glass	solid	1 pound
		8-Hydroxy-7-iodo-5-quinoline Sulfonic Acid	glass	solid	8 ounces
		8-Hydroxyquinoline	glass	solid	1/4 pound
		Indigo Carmine	glass	solid	15 grams
		Lead Nitrate	glass	solid	12 ounces
		Manganese Dioxide	glass	solid	1 pound
		Mercuric Oxide	glass	solid	1/4 pound
		Mercurous Chloride	glass	solid	2x1/4 pound
		Mercurous Nitrate	--	solid	12 ounces
		Mercurous Silicofluoride	plastic	solid	4x1/4 pound
		Mercurous Silicofluoride	glass	solid	4x1/4 pound
		Mercurous Silicofluoride	plastic	solid	4 ounces
		Metanil Yellow	glass	solid	9x25 grams
		Methocel-methyl Cellulose	metal	solid	6 ounces
		N-Methyl Naphthalamine	glass	liquid	25 grams
		2-Methyl-4-nitroaniline	glass	--	200 grams
		N-Methyl-p-nitroaniline	glass	solid	--
		Methyl Sulfate	glass	solid	2x1 pound
		Methyl Violet	glass	solid	25 grams
		Methyl Violet B	glass	solid	25 grams
		Monobromobenzene	glass	liquid	2 pint
		Monomethylparamino Phenol Sulfate	glass	solid	500 grams
		Montmorillonite Clay	plastic	solid	1 ounce
		Morin	glass	solid	20 grams
		Nigrosine Black Dye	glass	solid	2x1 pound
		m-Nitroacetophenone	glass	solid	50 grams
		p-Nitroaniline	glass	solid	50 grams
		Nitrobenzene Sulfonylchloride	glass	liquid	10 ounces

Table 1.--Records of chemical compounds buried in the landfill in the Hazardous Waste Disposal Facility, White Sands Missile Range-Continued

Burial site	Burial date	Chemical compound	Container	Physical state	Quantity
6 (continued)	10-09-81	Nitron	glass	solid	100 grams
		1-Nitronaphthalene	glass	solid	200 grams
		1-Nitroso-2-naphthol	glass	solid	1/2 pound
		5-Nitro-1-naphthylamine	glass	solid	4 ounces
		Paraformaldehyde	glass	solid	1 pound
		Parlodian strips (Nonexplosive cellulose nitrate)	glass	solid	1 ounce
		Phenol	glass	solid and liquid	16 ounces
		Phenol Red	glass	solid	2 ounces
		Phenyl Hydrazine	glass	liquid	20 milliliters
		Phenylmercuric Acetate	glass	solid	2 ounces
		Phosphate detergent	glass	solid	2 pounds
		Phosphoric Acid	glass	liquid	12 ounces
		Phosphorus Pentachloride	--	solid	1 pound
		o-Phthaldicarboxaldehyde	glass	solid	2x25 grams
		Potassium Chromate(VI)	glass	solid	2 ounces
		Potassium Dichromate	glass	solid	2x1 pound 3x2 pounds
		Potassium Hydroxide	metal	solid	8 pounds
		Potassium Iodide	glass	--	4 ounces
		Potassium Manganate(VI)	glass	solid	5 pounds
		Potassium Manganate(VI)	metal	solid	3 pounds
		Potassium Manganate(VI)	cardboard/ plastic	solid	1 pound
		Potassium Sulfide	glass	solid	1 pound
		Quinaldine	glass	liquid	4 ounces
		Salicylanilide	glass	solid	1 pound
		Salicylic Acid	plastic	solid	1 pound
		Sipon-sulfated fatty alchohol	glass	solid	5 pounds
		Sodium Cyanide	glass	solid	3/4 pound
		Solid Green Dye	glass	solid	1 pound
		Starch	glass	solid	1 pound
		Terphenyl	glass	solid	200 grams
		p-Terphenyl	glass	solid	1 pound
		Thallium Chloride	glass	solid	10 grams
		Thymol Blue	glass	solid	4x25 grams
		Trichloracetic Acid	glass	solid	30 grams
		Triphenyl Bismuth	glass	solid	200 grams
		Zinc Acetate	glass	solid	9x1 pound
		Zinc Acetate	plastic	solid	1 pound
		Zinc Chloride solution	glass	liquid	12 ounces
		Zinc Sulfate	glass	solid	1 pound
		Zinc Sulfide	glass	solid	4 ounces

Table 1.--Records of chemical compounds buried in the landfill in the Hazardous Waste Disposal Facility, White Sands Missile Range--Concluded

Burial site	Burial date	Chemical compound	Container	Physical state	Quantity
6 (continued)	10-09-81	Unknown 82	glass	solid	1 ounce
		Unknown 83	glass	solid	4 ounces
		Unknown 85	glass	solid	4 ounces
		Unknown 86	glass	solid	4 ounces
		Unknown 87	glass	solid	4 ounces
		Unknown 88	glass	solid	2 ounces
		Unknown 89	glass	solid	2 ounces
		Unknown 90	glass	solid	4 ounces
		Unknown 92	glass	solid	2 ounces
		Unknown 94	glass	solid	4 ounces
		Unknown 98	glass	solid	4 ounces
		Unknown 99	glass	solid	4 ounces
		Unknown 100	glass	solid	2 ounces
		Unknown 101	glass	solid	1 ounce
		Unknown 102	--	liquid	2x1/2 gallon
		Unknown 103	plastic	liquid	3x1 gallon
		Unknown 104	--	solid	1 ounce
		Unknown 104	glass	solid	1 ounce
		Unknown 105	glass	solid	1 ounce
		Unknown 107	glass	solid	1 pound
		Unknown 108	glass	--	10 ounces
		Unknown 110	plastic	solid	6 ounces
		Unknown 111	plastic	solid	8 ounces
		Unknown 111	glass	solid	1 pound
		Unknown 112	glass	liquid	1 ounce
		Unknown 113	glass	solid	1 ounce
		Unknown 114	glass	liquid	3 ounces
		Unknown 116	glass	solid	1 ounce
		Unknown 117	plastic	liquid	10 ounces
		Unknown 118	glass	solid	1 ounce
		Unknown 119	glass	solid	2 ounces
		Unknown 123	glass	liquid	2 ounces
		Broken glass	glass	solid	20 pounds
Cell number and date buried not reported		Amorphous Phosphorus	drum	solid	2x6 ounces
		Amorphous Red Phosphorus	drum	solid	1 pound
		Unknown 122	glass	liquid	10 ounces
		Unknown 121	glass	liquid	2 ounces
		Broken glass/plastic	plastic	solid	30 pounds
		Broken glass, paper and plastic debris	plastic	solid	50 pounds
		Broken glass, paper, plastic debris	plastic	solid	30 pounds
		Debis, paper, plastic, dirt	plastic	solid	50 pounds
		Paper, plastic debris	plastic	solid	20 pounds
		Paper, plastic debris	plastic	solid	20 pounds
		Paper, plastic debris	plastic	solid	20 pounds

Information about the molecular formula, molecular weight, water solubility, and health effects for a number of the chemical compounds buried at the landfill is summarized in Supplemental Information at the end of this report. The data were compiled from texts, handbooks, and reports listed in the reference section of this report. Most data were compiled from Budavari and others (1989). In some cases, the names of the chemical compounds listed in table 1, which were provided by the White Sands Missile Range, are abbreviated or have different or former usages of spelling for the same chemical compound. Common synonyms were applied when necessary. No data were available from the references for a number of the chemical compounds.

WATER BALANCE

Meterological and hydrologic data were analyzed to qualitatively evaluate the water balance in the vicinity of the Hazardous Waste Disposal Facility. Precipitation data for the Post Headquarters and vicinity (fig. 4) were collected from January 1950 through December 1989 at the following sites:

Station name	Period collected	Latitude-Longitude (degree, minutes)	Altitude (feet)
Station-A	January 1950-May 1978	32°23' 106°29'	4,251
Golfball site	May 1978-December 1979	32°22' 106°24'	3,925
Station-C	December 1979-December 1989	32°21' 106°22'	4,016
Hazardous Waste Disposal Facility	September 1988-December 1989	32°23' 106°20'	4,037

Evaporation data collected by the New Mexico Department of Agriculture on the New Mexico State University campus (Eschrick, 1990), located in Las Cruces about 35 miles southwest of the Hazardous Waste Disposal Facility, were compiled for 1979-89. The evaporation data collected at the New Mexico State University campus was the most complete available data for the area; weather patterns at the campus are comparable to those at the facility.

The climate in the vicinity of the Hazardous Waste Disposal Facility is arid to semiarid. There are an abundance of sunny days throughout the year. Mean annual temperature is about 60 degrees Fahrenheit and average relative humidity is 39 percent (Eschrick, 1990). Dust storms are frequent during

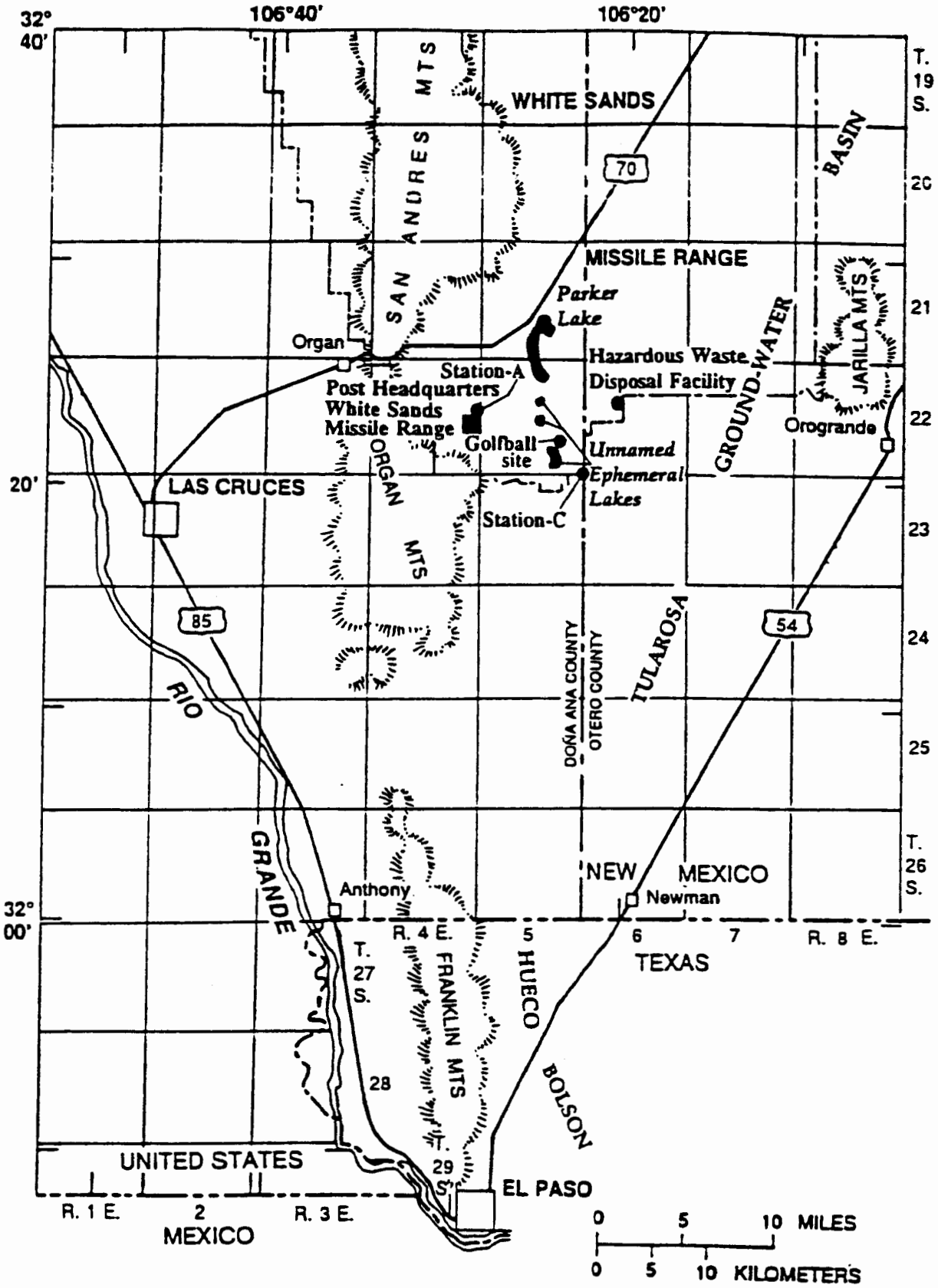

Figure 4.–Location of precipitation stations and physical features of part of White Sands Missile Range (modified from Cooper, 1970).

March and April. The soil surface is dry and vegetation is sparse, characterized by desert flora, such as yucca trees, mesquite, and several varieties of cacti

Precipitation

Precipitation in the area is mostly in the form of rain. Mean annual precipitation for 1950-89 recorded at Station-A, the Golfball site, and Station-C is 11.45 inches. Precipitation at the Hazardous Waste Disposal Facility for 1989 was 8.38 inches (table 2). Annual precipitation at Station-C, 4 miles from the facility, for 1989 was 9.77 inches. About 50 percent of the precipitation falls in July, August, and September; intense thunderstorms are common during this period.

Snowfall in the area is infrequent and melts rapidly. A snowfall depth of 43.4 inches, however, was measured at Station-C in the winter of 1987-88. A snowfall depth of 24.5 inches was measured at Station-A in the winter of 1967-68. Mean annual snowfall in the area is about 8 inches (Eschrick, 1990).

Evaporation

Evaporation at the Hazardous Waste Disposal Facility is governed by meteorological factors and is limited to the unsaturated zone. There are no ponds or lakes in the study area where evaporation needs to be considered. Transpiration is assumed to minor due to the sparseness of vegetation in the area.

Total pan-evaporation rates measured at the campus of New Mexico State University are listed in table 3. Mean annual pan evaporation for the continuous period of record, 1971-79, was 93.4 inches; 50 percent of this evaporation was measured in May through August.

In calculating potential evaporation, a conservative factor of 0.70 was applied to pan evaporation in order to obtain a more accurate estimate

Table 2.--Monthly precipitation, in inches, at Hazardous Waste Disposal Facility, White Sands Missile Range, October 1988 through December 1989

[--, no data]

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1988	--	--	--	--	--	--	--	--	--	0.37	0.31	0.58	--
1989	0.22	0.83	0.47	0.01	0.43	0.01	1.88	2.36	1.49	0.22	0.01	0.45	8.38

Table 3.--Monthly evaporation, in inches, at New Mexico State University, Las Cruces, New Mexico

[Data from Office of the State Climatologist, New Mexico Deptartment of Agriculture, Las Cruces, total pan evaporation; M, missing data]

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1971	4.2	5.4	9.2	10.8	13.5	12.9	13.6	9.8	8.9	6.0	3.9	2.5	100.7
1972	3.5	5.4	9.4	11.0	11.6	11.5	12.6	9.9	6.7	6.3	3.5	3.1	94.5
1973	2.7	2.8	6.6	9.4	11.5	13.2	11.3	10.5	8.4	6.4	4.6	3.9	91.3
1974	3.5	4.6	7.8	10.5	11.9	14.7	10.5	9.1	7.4	5.6	2.9	2.4	90.9
1975	3.1	4.1	6.9	9.2	11.1	13.8	11.3	11.0	7.5	7.1	4.7	3.0	92.8
1976	3.4	5.0	8.6	9.1	11.0	13.6	10.9	11.4	7.3	5.4	3.2	2.4	91.3
1977	2.9	4.3	7.4	8.7	11.0	11.9	11.4	11.5	8.9	5.9	4.6	4.0	92.5
1978	2.9	3.8	6.9	10.5	12.5	14.1	13.7	11.2	7.9	5.7	3.2	2.9	95.3
1979	3.4	4.1	7.1	9.8	11.6	11.3	11.5	10.1	8.2	7.3	4.4	2.9	91.7
1980	3.2	4.3	7.7	9.3	11.0	14.2	14.5	10.6	7.0	6.5	M	3.6	M
1981	2.5	4.5	6.8	9.2	12.5	12.9	11.8	10.3	7.2	6.3	4.7	3.8	92.5
1982	4.3	M	7.9	9.8	11.0	13.3	12.0	10.5	8.0	6.6	3.2	M	M
1983	M	4.9	7.4	10.0	12.5	13.3	13.5	11.0	8.8	5.1	M	M	M
1984	M	M	9.0	11.2	13.2	12.3	12.8	9.0	9.0	4.8	3.8	M	M
1985	M	M	6.6	9.3	10.4	12.4	11.8	10.4	8.0	5.4	M	M	M
1986	M	5.0	7.3	9.9	11.6	10.5	10.8	10.1	7.8	5.4	3.0	M	M
1987	M	M	M	M	M	M	M	M	M	M	M	M	M
1988	M	M	10.1	9.0	12.8	12.7	12.1	8.6	8.0	6.1	M	M	M
1989	M	4.7	M	M	M	14.3	13.2	9.7	8.8	6.7	4.8	M	M
MEAN	M	M	7.7	9.9	11.7	12.9	12.1	10.4	7.9	6.0	M	M	M
MEANS FOR 1971-79													
MEAN	3.3	4.4	7.8	9.9	11.7	13.0	11.9	10.5	7.9	6.2	3.9	3.0	93.4

of evaporation at the Hazardous Waste Disposal Facility. This factor is applied to adjust for the difference in evaporation from a pan of water on the land surface that might gain or lose heat through the sides or bottom, compared to water stored in the ground that is not subject to the same above surface exposure (Fetter, 1980, p. 16). Potential evaporation was estimated to be 65 inches per year.

Surface-Water Inflow and Outflow

No perennial or ephemeral streams are in the vicinity of the Hazardous Waste Disposal Facility. In the area of the Post Headquarters, well-defined arroyos extend from the Organ Mountains to playa lakes about 4 miles west of the study area (fig. 4). The arroyos become less defined as they reach the playas that have no drainage outlets. The arroyos flow only in response to intense precipitation during thunderstorms. The ephemeral playa lakes contain water only after intense precipitation. Most of this standing water is evaporated although some infiltration might occur. Surface outflow at the Hazardous Waste Disposal Facility is assumed to be negligible due to the absence of surface-water flow in the vicinity of the facility.

Ground-Water Recharge and Discharge

Direct infiltration of precipitation in the area of the Hazardous Waste Disposal Facility is considered to be a minor source of recharge. The rate of recharge through the unsaturated zone was estimated to be 0.019 inch per year as discussed in the Unsaturated Zone Characteristics section of this report.

Water development and ground-water discharge through wells or springs at the Hazardous Waste Disposal Facility are nonexistent. Depth to water at the

facility is 230 feet below land surface. Ground water flows approximately south-southwest beneath the facility. The ground water is nonpotable and has a dissolved-solids concentration of 16,800 milligrams per liter. The nearest production well yielding potable water is in the Post Headquarters area, 8 miles west of the study area.

Taking into account that there is no ground-water development within the Hazardous Waste Disposal Facility, it is assumed for the purpose of this study that a natural equilibrium exists between ground-water inflow and outflow, and that net annual-storage changes are negligible.

Evaluation of Water Balance

Having discussed independently the inflow and outflow of water within the Hazardous Waste Disposal Facility, a qualitative evaluation of the water balance was made. The mean annual precipitation at the facility was assumed to be 11.45 inches from the 1950-89 mean annual precipitation at Station-A, Golfball site, and Station-C. About 50 percent of the precipitation falls in July, August, and September.

The mean annual pan evaporation, measured on the New Mexico State University campus from 1971 through 1979, was 93.4 inches, with about 50 percent of the evaporation occurring during May through August. Potential evaporation was calculated using the pan evaporation figure and the conservative factor of 0.70, resulting in a more realistic estimate of 65 inches per year.

The source of natural recharge to the ground water at the Hazardous Waste Disposal Facility is the precipitation that falls in the area. In summary:

Precipitation	Surface-water inflow	Surface-water outflow	Ground-water recharge	Ground-water discharge	Potential evaporation
11.45 inches per year	Negligible	Negligible	Negligible	Negligible	65 inches per year

Because potential evaporation is more than 5 times the precipitation, it can be assumed that most precipitation at the facility is evaporated. During periods of intense precipitation, when precipitation is greater than potential evaporation, recharge to the ground-water system might occur at an estimated rate of 0.019 inch per year (see section Unsaturated-Zone Characteristics).

GEOHYDROLOGY

The Post Headquarters area of the White Sands Missile Range is in the southwestern Tularosa Ground-Water Basin which lies between fault-block mountains of south-central New Mexico (figs. 1 and 4). The Post Headquarters area is along the base of the Organ and San Andres Mountains (fig. 4) that are composed of igneous rocks of Precambrian through Tertiary age. Middle and late Cenozoic deposits of alluvial fill, or bolson fill, extend throughout the interior basin.

Well data describing the geohydrologic characteristics of the deposits in the area of the Hazardous Waste Disposal Facility are limited. Test wells were drilled in the area to obtain information about lithologic and hydrologic properties.

Geology

The Hazardous Waste Disposal Facility is underlain by unconsolidated Quaternary alluvium and bolson-fill deposits of locally derived materials. These deposits typically are composed of fine- to medium-grained sand with interbedded lenses of clay, silt, gravel and caliche. The thickness of these deposits exceeds 6,000 feet about 4 miles west of the study area (Kelley and Hearne, 1976, p. 29).

Lithologic logs for borehole BH-1 and test well TW-4 (tables 4-5), installed as part of this study, indicate a lithologic sequence of clay, silt, and very fine to medium-grained sand. Lithologic samples in borehole BH-1 were collected using a hollow-stem auger drilling rig with a split-spoon sampler. Borehole BH-1 was drilled as an exploratory hole to collect soil samples and geologic information for a recharge study discussed in the

Table 4.--Lithologic log for borehole BH-1 (22S.06E.16.234)

[See Goddard and others (1951) for rock color terms. <, less than; mm, millimeter]

Lithology	Thickness (feet)	Depth interval below land surface (feet)
Sand, very fine to medium-grained, subangular to subrounded, moderately to poorly sorted, (5YR 4/4). Predominately quartz. Minor caliche, present as medium-grained and as grain coatings.	4	0-4
Caliche, very fine sand in a caliche matrix. Sand, subangular, subrounded, moderately sorted, (10R 8/2). Composed chiefly of quartz with minor dark grains.	3	4-7
Caliche, very fine to medium-grained sand, (10R 8/2). Sand, predominately quartz with minor (<1 percent) dark minerals.	1	7-8
No recovery	1	8-9
Sand, medium- to coarse-grained, subangular and minor subrounded grains, pale-gray. Sand fraction well sorted. Some pebbles to 10 mm, and minor caliche. Composed of 95-98 percent quartz, <2 percent chert and quartzite, dark grains, and a few grains of obsidian.	2	9-11
No recovery	3	11-14
Sand, medium- to fine-grained, reddish brown; minor caliche and clay at lower interval.	3	14-17
No recovery	2	17-19
Sand, very fine to medium-grained, subangular to subrounded, moderately well sorted, pale gray. Composed of approximately 98 percent quartz, 2 percent lithic grains, obsidian, and chert. Minor caliche.	1.5	19-20.5

Table 4.--Lithologic log for borehole BH-1 (22S.06E.16.234)--Continued

Lithology	Thickness (feet)	Depth interval below land surface (feet)
Sand, fine- to coarse-grained. Sand, predominately subrounded with some subangular, moderate to poorly sorted, reddish brown; minor caliche. Sand, predominately quartz with minor obsidian, selenite, chert and quartzite. One-inch clay zone at bottom, (10R 6/2).	1	20.5-21.5
No recovery	2.5	21.5-24
Sand, fine-grained, gray, well sorted.	1	24-25
No recovery	4	25-29
Sand, coarse- to very coarse grained, some granule to pebble size clasts of quartzite, chert and sandy caliche (fine-grained light purple volcanic pebbles). Subrounded to rounded. Clay, coarse-grained and pebble-size aggregates, moderate reddish-orange (10R 6/6). Some double twinned, dipyramidal, clear crystals present. Sand, mainly quartz with some minor lithics including obsidian and chert.	2	29-31
Sand, very fine to coarse-grained, subangular to subrounded. Composed of 90-95 percent quartz. Lithic grains compose <5 percent of the total, include obsidian, volcanic rock fragments, angular, pinkish orange clay.	0.5	31-31.5
Clay, moderate reddish orange (10R 6/6) on scraped surface, to orange pink (10R 7/4) on a broken granular surface. Smectite clay.	0.5	31.5-32
No recovery	2	32-34
Clay, moderate reddish orange (10R 6/6).	0.5	34-34.5

Table 4.--Lithologic log for borehole BH-1 (22S.06E.16.234)-Continued

Lithology	Thickness (feet)	Depth interval below land surface (feet)
Sand, very fine grained to coarse-grained; 3-inch layer of caliche. Caliche indurated with very fine to medium-grained sand, caliche fills pore space and coats grains, grayish-orange pink (10R 8/2).	1	34.5-35.5
Sand, fine- to very fine grained, silt, yellowish-pink.	0.5	35.5-36
Clay, pale red (10R 6/2). Probably a swelling clay.	1	36-37
Sand, fine- to very fine grained, silt. yellowish-pink.	1	37-38
No recovery	1	38-39
Sand, fine- to very fine grained sand, silt. Subrounded to well rounded, well sorted. Lithic grains compose <5 percent of the total, include obsidian, volcanic rock fragments, angular pinkish orange clay grains.	1.7	39-40.7
Clay and selenite crystals with minor silty component. Clay, very pale-orange (10YR 8/2) to pale-light brown.	0.1	40.7-40.8
Clay with sand, silty to medium-grained sand dispersed throughout the clay. Scraped surface, pale red (10R 6/2), broken surface, light brown (5YR 6/4). Some mottling (green blotches) in clay.	2.7	40.8-43.5
No recovery	0.5	43.5-44
Sandy clay with calcareous (caliche) fillings. Sand, silty to fine-grained, subrounded to rounded, (5YR 5/6). Calcareous zones approach a grayish-pink (10R 8/2).	3.5	44.-47.5

Table 4.--Lithologic log for borehole BH-1 (22S.06E.16.234)-Concluded

Lithology	Thickness (feet)	Depth interval below land surface (feet)
Sandy clay, very fine to fine-grained sand in a clay matrix, light brown (5YR 5/6). Subrounded to rounded with moderate sorting. Minor caliche as grains or blotches. Sand, 98 percent quartz with 2 percent or less dark lithics.	1.5	47.5-49
Clay, with silt and fine sand. Predominately clay, pale reddish brown (10R 5/4) with silt and minor dispersed fine-grained sand. Minor caliche blotches.	0.25	49-49.25
Clay, fine-grained sand and silt, (5YR 5/6) and 1 to 2 mm blotches of caliche. Sand, 98 percent quartz with 2 percent or less dark lithics.	7.25	49.25-56.5
Silty to fine-grained sand with clay (5YR 5/6). Sand, 95 percent quartz, 5 percent lithics. Some pinkish orange clay.	5.8	56.5-62.3
Sand, fine- to medium-grained, some silt and very fine grained sand, subrounded to rounded, well sorted, light brown (5YR 5/6). Composed of 98 percent quartz and 2 percent or less lithics. Some clay as grain coatings.	0.8	62.3-63.1
Clay, with very fine to fine-grained sand and silt, light brown (5YR 6/4). Well sorted, subrounded, 98 percent quartz. Some minor caliche blotches. Clay, pinker (10R 8/2) at 70- to 71-foot interval and grayish-orange pink (5YR 7/2) at 71- to 74-foot interval.	10.9	63.1-74
No recovery	2.5	74-76.5
Clay, with more silt than 63.1- to 74-foot interval, grayish-orange pink (5YR 7/2), calcareous. Some caliche grains.	1.5	76.5-78
Clay, light brown (5YR 6/4), with silt to fine-grained sand layers.	1	78-79
Sand, very fine grained sand. Silt, well-rounded and well-sorted. Grayish-orange pink to light brown. Slightly calcareous.	5	79-84

Table 5.--Lithologic log for test well TW-4 (22S.06E.16.412)

[Some samples were washed]

Lithology	Thickness (feet)	Depth interval below land surface (feet)
Sand, fine to coarse-grained, caliche; well sorted, angular to subrounded.	10	0-10
Sand, very fine to fine-grained, caliche; well sorted, subangular to rounded; small amounts of igneous rock and biotite.	5	10-15
No sample	5	15-20
Sand, silt, clay, and caliche: sand is very fine to coarse grained, moderately sorted.	15	20-35
Sand, silt; sand is fine to medium grained; moderately sorted; angular to subrounded.	5	35-40
Silt, sand; sand subangular to subrounded; composed of quartz with some igneous rock.	35	40-75
Sand, very fine to medium-grained; angular to rounded; composed of quartz and igneous rock, some biotite.	30	75-105
Sand, clay; very fine grained sand; well sorted; sand is subangular to subrounded; composed of quartz.	5	105-110
Sand, coarse- to very coarse grained; some fine-grained sand; poorly sorted; subangular to subrounded; composed of quartz.	15	110-125
Sand, medium- to coarse-grained, some gravel; poorly sorted; grains subangular to rounded; composed of quartz and some igneous rock.	15	125-140

Table 5.—Lithologic log for test well TW-4 (22S.06E.16.412)—Continued

Lithology	Thickness (feet)	Depth interval below land surface (feet)
No sample	5	140-145
Sand, medium- to coarse-grained, poorly sorted; some clay; moderately sorted; sand angular to subrounded; composed of quartz and igneous rock.	10	145-155
Sand, very fine to medium- grained, some clay; moderately sorted: sand angular to subrounded; composed of quartz and igneous rock.	10	155-165
Clay, with very fine to fine-grained sand; well sorted; sand subrounded, composed of quartz; caliche.	10	165-175
Clay, silt, sand; sand is very-fine to medium grained; moderately sorted; caliche cement prominent.	15	175-190
Sand, very fine to very coarse grained; angular: angular to subrounded; well sorted: composed of quartz: some caliche.	10	190-200
Sand, fine-, medium- and coarse-grained;some clay; sand becomes prominent gray; very well sorted; subangular; composed of quartz and igneous rock.	5	200-205
Sand, very coarse grained with volcanic pebbles; subangular to subrounded; moderately sorted.	5	205-210
Clay, sand; very fine to medium grained sand, well sorted, subangular, composed of quartz.	5	210-215

Table 5.--Lithologic log for test well TW-4 (22S.06E.16.412)--Concluded

Lithology	Thickness (feet)	Depth interval below land surface (feet)
Sand, fine- to very coarse grained and pebbles; gypsum/selenite crystals present from 230 to 235 feet.	20	215-235
Clay, sand; sand is fine to medium grained, some coarse-grained sand; moderately sorted, composed of quartz.	5	235-240
Clay, silty sand, very fine grained to medium-grained sand; selenite/gypsum crystals within 250-255 interval, subangular; caliche throughout.	150	240-390
Clay, sand; sand is very fine to medium-grained; some coarse granules, gravel, and chert; caliche throughout.	40	390-430

Unsaturated-Zone Characteristics section of this report. Dominant clay zones were penetrated in borehole BH-1 from 40.7 to 74 feet and from 76.5 to 79 feet below land surface. The drilling tools of the auger rig became stuck between 80 and 84 feet, probably due to swelling clay

Test well TW-4 was drilled in September 1989 (table 6) as an exploratory and monitoring well to obtain geohydrologic data, monitor water levels, and conduct aquifer tests. This well penetrated 430 feet of heterogeneous bolson-fill deposits and penetrated dominant clay zones at 165 to 190 feet and 235 to 430 feet (table 5).

Test wells TW-1, TW-2, and TW-3 were drilled in summer and fall of 1983 (table 6) as exploratory and monitoring wells to obtain geohydrologic data and to monitor water levels and water quality. The test wells were not developed or sampled until January 1989. The wells penetrated interbedded lenses of clay, silt, sand, and some gravel (Myers and Pinckley, 1987). Lithologic columns of test wells TW-1, TW-2, TW-3, and TW-4 are shown in figure 5.

Test well TW-1 penetrated minor clay zones at 125 to 150 feet and 240 to 245 feet below land surface. Test well TW-2 penetrated several minor clay zones and a dominant clay zone at 95 to 105 feet below land surface. This clay zone probably correlates with the clay zone at the bottom of borehole BH-1 located about 60 feet west of test well TW-2. Test well TW-3 penetrated 205 feet of interbedded sand, gravel, silt, and clay before entering a dominant clay unit that extends to 300 feet below land surface. Dominant clay layers also were penetrated in test well TW-3 at 85 to 100 and 125 to 160 feet below land surface.

Table 6.--Well records of test wells TW-1, TW-2, TW-3, and TW-4, White Sands Missile Range

[Modified from Myers and Pinkley, 1987]

Well name	Location	Date drilled	Hole diameter (inches)	Drilled depth (feet)	Finished depth (feet)	Screen interval (depth below land surface) (feet)	Casing diameter (inches) (type)
TW-1	22S.06E.16.233	7-83	9 7/8	300	285	225-285	4 (PVC)
TW-2	22S.06E.16.234	8-83	9 7/8	300	285	225-285	4 (PVC)
TW-3	22S.06E.16.234A	10-83	9 7/8	300	285	230-270	4 (PVC)
TW-4	22S.06E.16.412	9-89	13	430	407	327-387	6 (PVC)

Well name	Altitude of land surface (feet)	Water level below land surface (feet)	Date measured
TW-1	4,031.81	229.49	3-20-89
TW-2	4,038.22	235.71	3-20-89
TW-3	4,037.19	234.62	3-20-89
TW-4	4,036.50	234.10	11-02-89

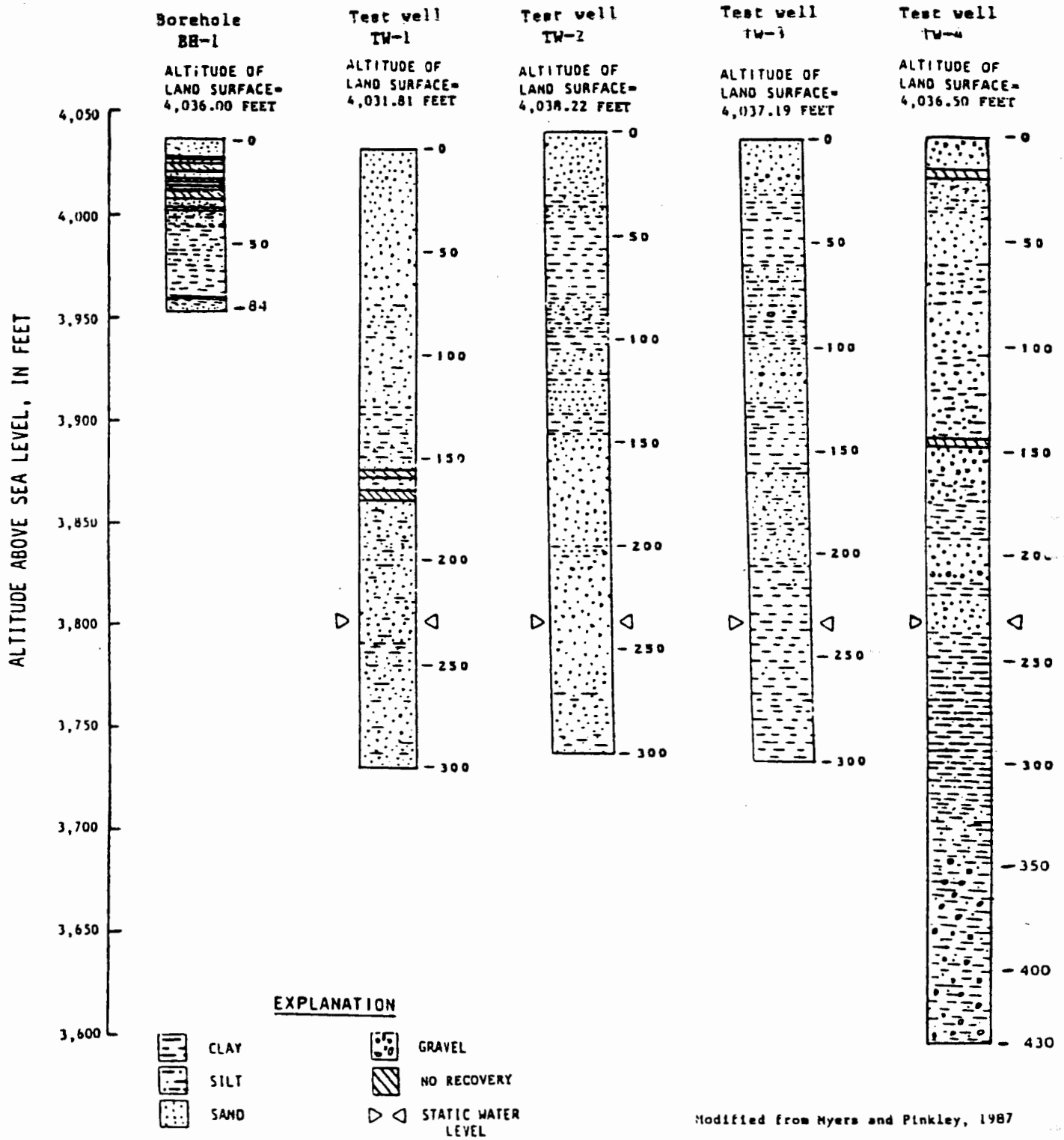

Figure 5.--Lithologic logs of borehole BH-1 and test wells TW-1, TW-2, TW-3, and TW-4.

Unsaturated-Zone Characteristics

The zone between the land surface and the potentiometric surface of the bolson-fill aquifer is defined as the unsaturated zone. In the area of the Hazardous Waste Disposal Facility, that zone is about 230 feet thick. As part of this investigation, the New Mexico Bureau of Mines and Mineral Resources conducted a recharge study of the unsaturated zone (Stone, 1991). The study estimated an average long-term rate at which water may move toward the water table with the inflow of precipitation using the chloride mass-balance method (Allison and Hughes, 1978).

In estimating recharge, the following equation (Stone, 1991) was used:

$$R = (P \times Cl_p)/(Cl_{sw}) \qquad (1)$$

where R = recharge rate, in inches per year;

P = mean annual precipitation, in inches per year;

Cl_p = annual chloride input by precipitation, in milligrams per liter; and

Cl_{sw} = average soil-water chloride concentration below the root zone, in milligrams per liter.

Because data for Cl_p were not available for the Hazardous Waste Disposal Facility, Stone (1991) obtained existing Cl_p data from the Sevilleta Wildlife Refuge about 135 miles north-northwest of the facility. Stone also used the available P data from Sevilleta Wildlife Refuge because the precipitation characteristics for the Sevilleta Wildlife Refuge are comparable to those at the facility. Using values of 7.9 inches per year for P, 0.37 milligram per liter for Cl_p (Phillips and others, 1984), and a C_{sw} value of 218 milligrams per liter from soil samples collected from borehole BH-1, Stone (1991) estimated a recharge rate of 0.013 inch per year.

Values selected for use in the mass-balance equation affect the results. Ideally, onsite data for P and Cl_p are used. Although a monitoring network has been installed at the Hazardous Waste Disposal Facility to collect annual-precipitation-quantity data and bulk-wet and bulk-dry precipitation samples for analysis of chloride concentrations, the record was not yet complete. One year of precipitation data--8.38 inches in 1989-- was available for the Hazardous Waste Disposal Facility. Using 8.38 inches per year for P, estimated recharge is 0.014 inch per year for 1989. Mean annual precipitation data for the period 1950-89, as recorded at Station-A, the Golfball site, and Station-C, was 11.45 inches. Using a mean annual P value of 11.45 inches, the estimated recharge rate is 0.019 inch.

The long-term average rate of 0.019 inch per year is a reasonable estimate of recharge at the Hazardous Waste Disposal Facility because it is a 40 year mean annual P for the vicinity of the facility. Stone (1991) emphasized that: (1) various climatic and site factors affect this estimate, (2) the rate applies only to readily soluble material that moves as soil water does, and (3) the mass-balance calculation is based on the assumption that the movement of soil water is strictly vertical and the medium is isotropic. The climatic conditions in the study area are variable, but, in general, evaporation exceeds precipitation and most of the potential recharge is evaporated. In the event that precipitation exceeds evaporation, the heterogeneity of the bolson-fill deposits will result in some lateral flow of the water through the unsaturated zone affecting the rate of recharge. Clay zones beneath the Hazardous Waste Disposal Facility would increase the rate of lateral flow of fluids through the unsaturated zone and decrease the rate of vertical flow.

Saturated-Zone Characteristics

The bolson-fill aquifer is defined as the saturated zone. In the area of the Hazardous Waste Disposal Facility, the water table is about 230 feet below the land surface (table 6) and slopes in a south-southwest direction (fig. 6) (see also Wilson and Myers, 1981, plate 1). In the immediate area of the facility, the hydraulic gradient is nearly flat at about 1 foot per mile. In the vicinity of the Gregg well, northwest of the facility, the hydraulic gradient increases to about 7 feet per mile.

The bolson-fill deposits are considered to be a water-table aquifer. Although some test wells have penetrated zones with semi-confined conditions, the response would be typical of water-table conditions after prolonged pumpage.

Step-drawdown and constant-discharge aquifer tests were conducted in the area of the Hazardous Waste Disposal Facility to: (1) aid in selecting the most suitable rate for the constant-discharge aquifer test; (2) determine the transmissivity of the aquifer for use in estimating the rate of flow through the aquifer; and (3) determine the specific capacity of the aquifer.

The Theis solution for estimating transmissivity is used extensively in analyzing aquifer-test data in the Tularosa Basin (Wilson and others, 1981, p. 15 and table 3, and Orr and Myers, 1986). Methods derived from the Theis nonequilibrium equation (Lohman, 1979) were used to analyze the aquifer-test data.

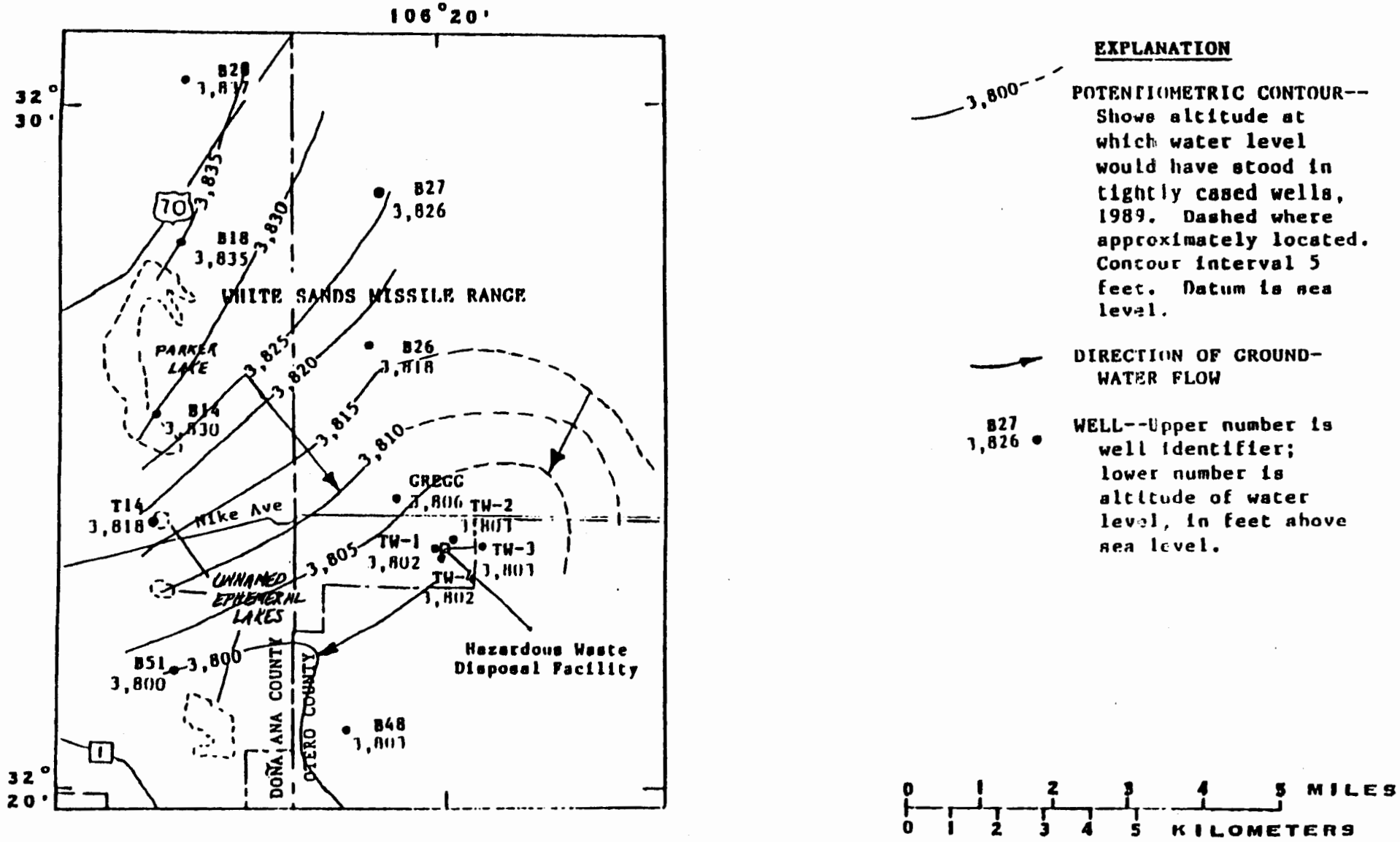

Figure 6.--Potentiometric surface of the olson-fill aquifer.

The analytical methods used in conducting the aquifer-test analysis are based on the following assumptions:

1. The aquifer is homogenous and permeability in the horizontal and vertical directions are uniform
2. The aquifer has infinite areal extent.
3. The pumped well penetrates and receives water from the entire thickness of the aquifer.
4. Water that is removed from storage is discharged instantaneously with a decline in hydraulic head.
5. The well diameter is infinitesimal.
6. The aquifer has radial flow within the radius of influence of the well.

In the area of the Hazardous Waste Disposal Facility, the aquifer is heterogeneous, consisting of interbedded clay, silt, sand, and gravel (fig. 5). Because of the heterogeneous composition of the aquifer materials, vertical and horizontal permeability vary substantially. The less permeable clay and silt lenses suppress vertical movement of water through the aquifer. The pumped well, test well TW-4, does not penetrate the entire thickness of the aquifer. Due to the heterogeneous and anisotropic conditions of the aquifer, radial flow probably occurs only adjacent to the screened interval of the pumped well. Although the assumptions are quite restrictive and the geohydrologic conditions in the area do not totally conform to these requirements, the Theis method of analyses has proved to provide acceptable results for estimating aquifer characteristics.

The pumped well for the aquifer tests was test well TW-4. Test well TW-4 was drilled to a depth of 430 feet (table 6). The 13-inch-diameter borehole

was cased with 6-inch-diameter polyvinylchloride (PVC) casing from about 1.1 inches above land surface to a depth of 407 feet (fig. 7) and screened with 0.030-inch slotted PVC screen from 307 to 387 feet below the land surface. Threaded casing and screen were used. The well was sand packed from 267-407 feet below the land surface.

Test wells TW-1, TW-2, and TW-3 were used as observation wells. Each well was instrumented with pressure transducers and a digital recorder for measuring water-level fluctuations during the aquifer test. Manual water-level measurements were made in test well TW-4 to verify the digital-instrumentation measurements.

Test wells TW-1, TW-2, and TW-3 were continuously monitored for water-level fluctuations 12 days prior to the aquifer tests. There were no substantial fluctuations or evident trends in the data that may have identified changes in barometric pressure. It is, therefore, assumed that barometric pressure remained virtually constant.

The step-drawdown aquifer test was conducted on September 26, 1989. Test well TW-4 was pumped at an initial rate of 40 gallons per minute for 1 hour, with a drawdown of 41.3 feet after the first hour. The discharge rate was increased to 90 gallons per minute for 1 hour resulting in a drawdown of 41.5 feet after the 2 hours of continued pumping. The discharge rate was then increased to 110 gallons per minute for the last hour. The total drawdown at the end of the test was 55.8 feet. The pumping period was followed by a 14-hour recovery period. The step-drawdown aquifer test was used to determine a suitable rate for the constant-discharge aquifer test; the final step rate of 110 gallons per minute was used.

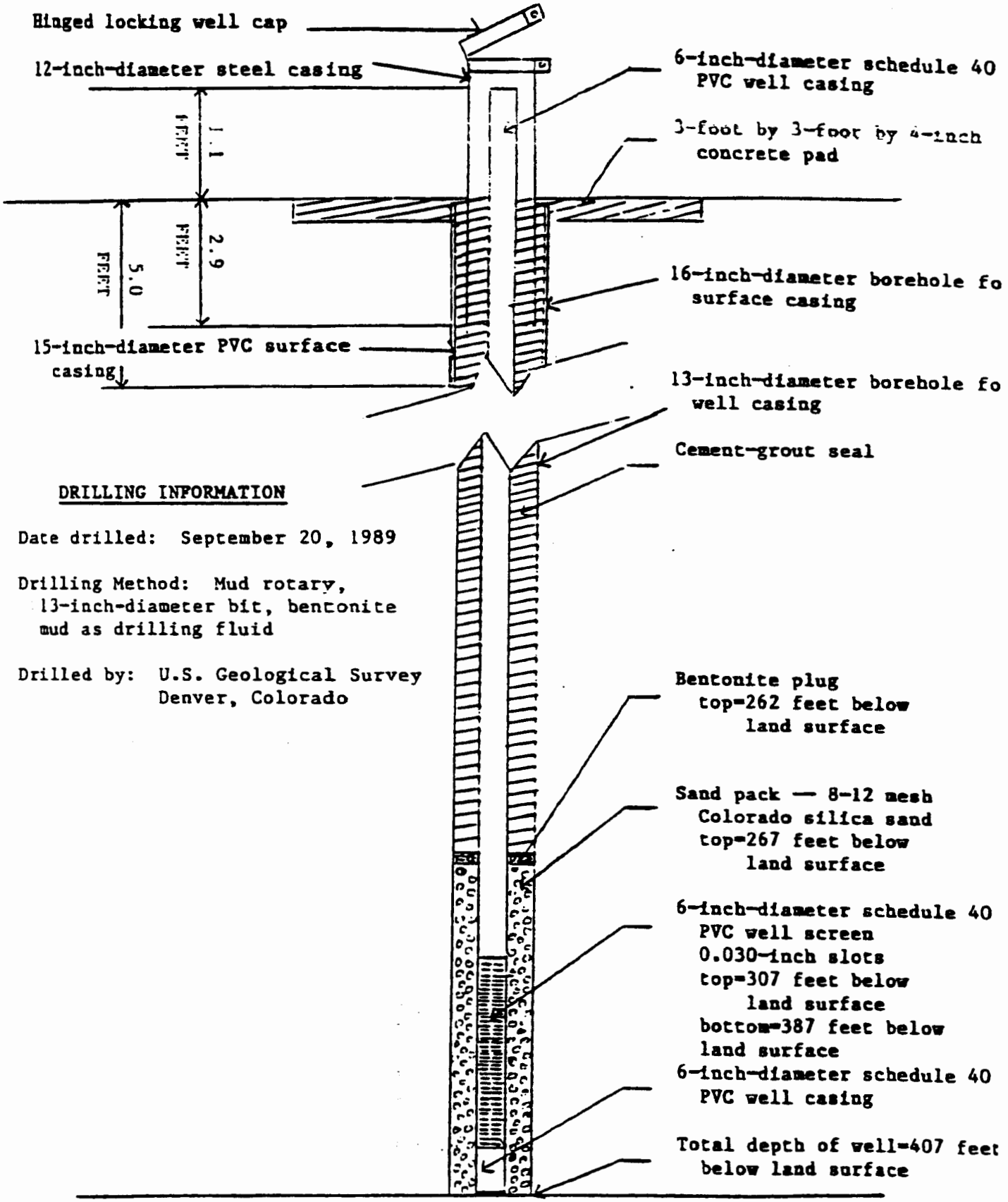

Figure 7.--Construction details for test well TW-4.

The constant-discharge aquifer test began on September 27, 1989. The water level in the well had fully recovered to the initial static-water level of the previous day. Test well TW-4 was pumped for 7 hours at 110 gallons per minute. Total drawdown at the end of the pumping period was 52.4 feet. The 7-hour specific capacity based on a constant discharge of 110 gallons per minute was 2.10 gallons per minute per foot of drawdown. The resulting drawdown test data were analyzed using the Cooper and Jacob (1946) straight-line method. Transmissivity of the aquifer open to test well TW-4 was estimated to be about 1,000 feet squared per day (fig. 8). The water-level recovery method (Lohman, 1979) was also used to estimate transmissivity of the aquifer. Time-recovery and residual-drawdown analyses resulted in transmissivity values of 1,300 feet squared per day (fig. 9 and 10).

The lithologic log of test well TW-4 indicates a clay zone at and above the top of the well screen with the percentage of clay decreasing and the percentage of sand increasing with depth (fig. 5). Assuming the permeable water-yielding zone is directly adjacent to, and limited to, the well screen, a total thickness of about 80 feet of permeable sand units could yield water to the production zone. Using the estimated transmissivity values from 1,000 to 1,300 feet squared per day, the estimate of the average hydraulic conductivity for the assumed water-producing zone ranges from 12.5 to 16.3 feet per day.

CONSTANT-DISCHARGE AQUIFER TEST--Test well TW-4
DATE OF TEST--September 27, 1989
DISHCARGE (Q)=110 gallons per minute
=21,175 cubic feet per day
DRAWDOWN (s) PER LOG CYCLE--$\Delta s/\log_{10} t$=3.77 feet

ESTIMATED TRANSMISSIVITY (T)= $\frac{2.30Q}{4\pi\Delta s/\log_{10} t}$

=1,028 feet squared per day
T≈1,000 feet squared per day

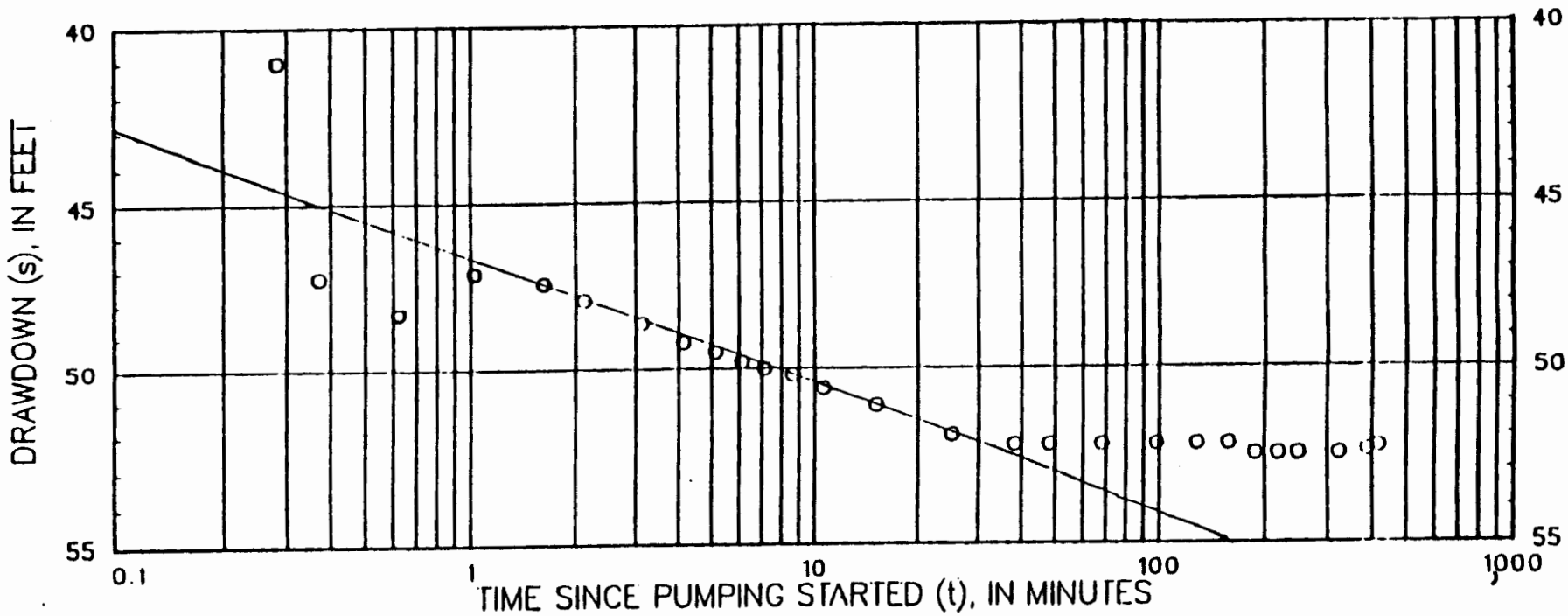

Figure 8.--Drawdown curve of constant-discharge aquifer test for test well TW-4.

TIME-RECOVERY CURVE—Test well TW-4
DATE OF TEST—September 27, 1989
DISHCARGE (Q)=110 gallons per minute
CALCULATED RECOVERY (s) PER LOG CYCLE—$\Delta s/\log_{10} t'$=3.0 feet

ESTIMATED TRANSMISSIVITY (T)= $\frac{264Q}{\Delta s}$
=9,680 gallons per day per foot
T=1,300 feet squared per day

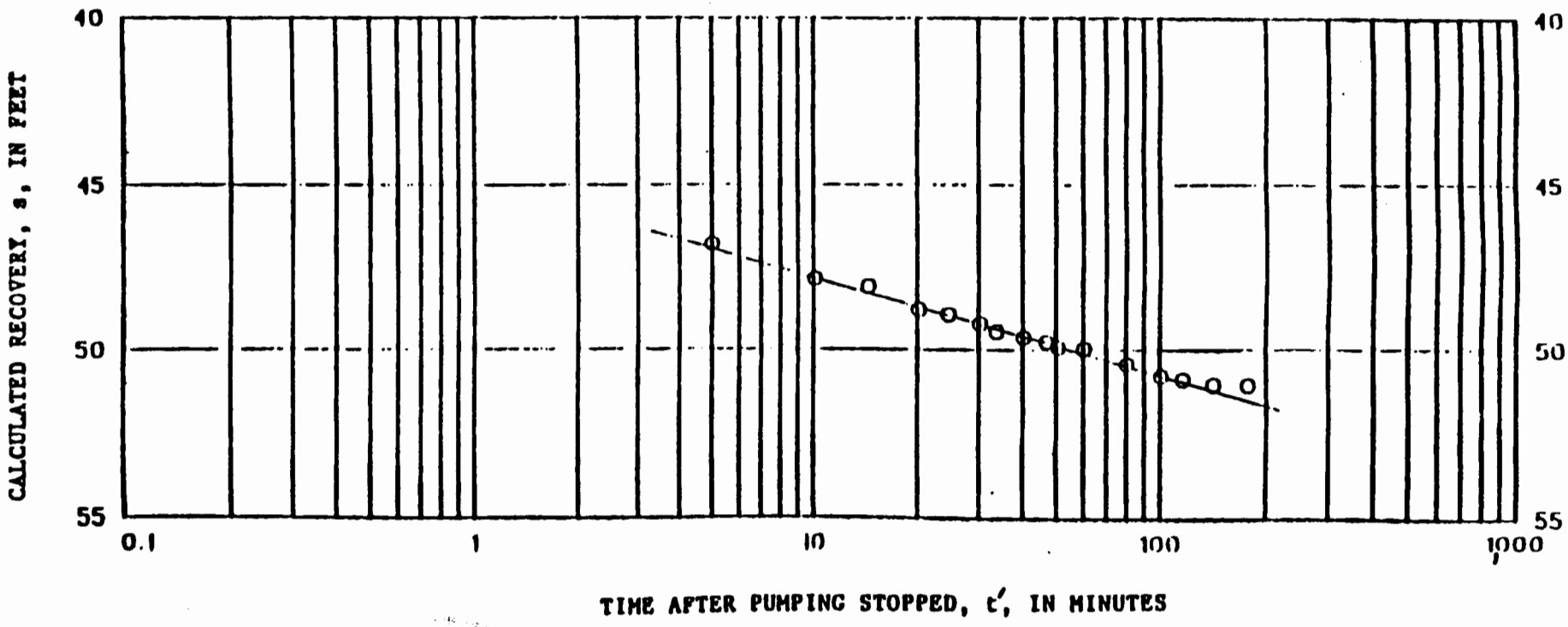

Figure 9.—Time-recovery curve of recovery-test data for test well TW-4.

RESIDUAL-DRAWDOWN CURVE--Test well TW-4
DATE OF TEST--September 27, 1989
DISHCARGE (Q)=110 gallons per minute
RESIDUAL DRAWDOWN (s') PER LOG CYCLE--$\Delta s'/\log_{10} t/t'$=2.9 feet

ESTIMATED TRANSMISSIVITY (T)= $\frac{264Q}{\Delta s'}$
=10,000 gallons per day per foot
T=1,300 feet squared per day

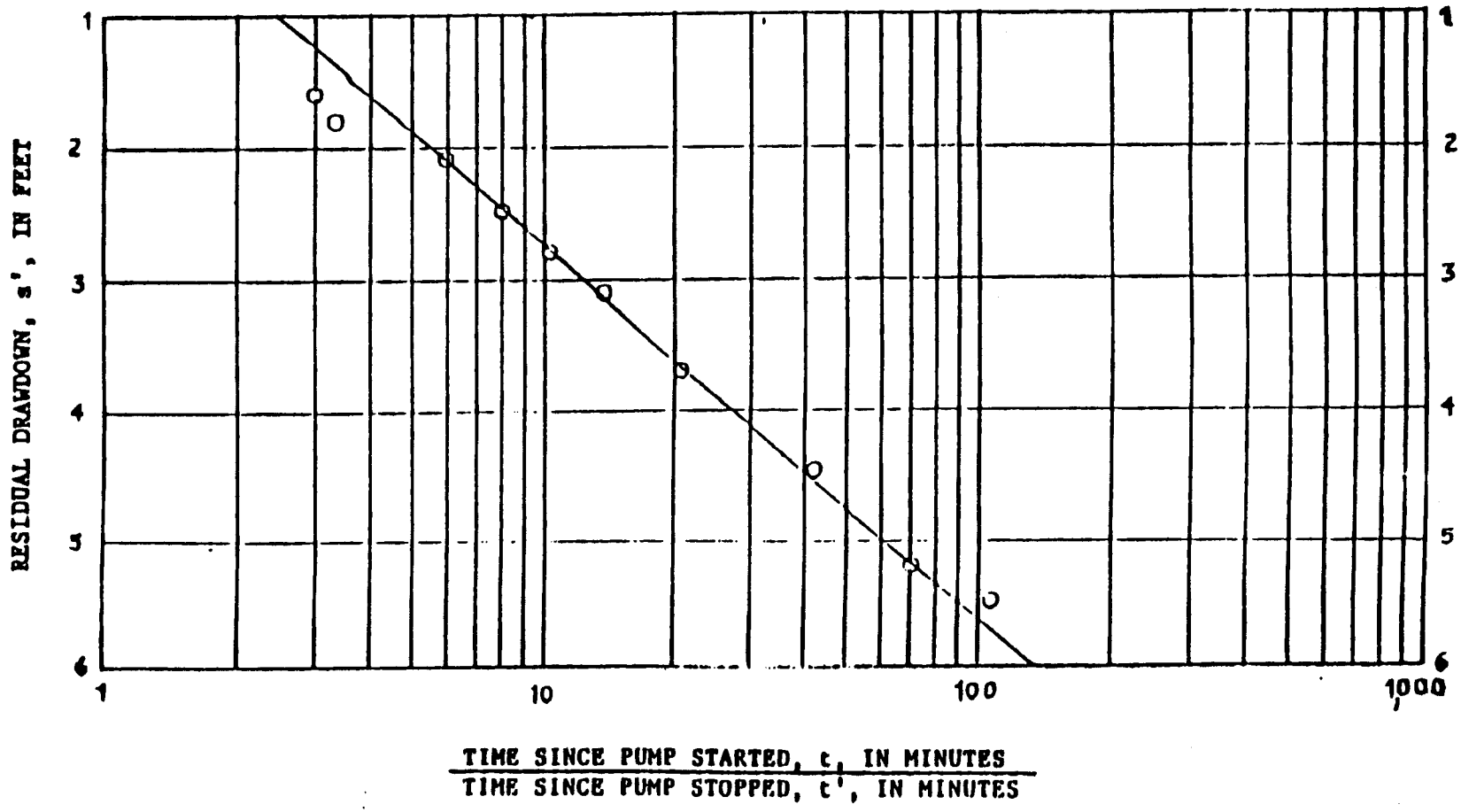

Figure 10.--Residual-drawdown curve of recovery-test data for test well TW-4.

During the aquifer testing of test well TW-4, test well TW-1 showed reverse water-level fluctuations of 0.05 foot. When the pump in test well TW-4 was shut off, the water level in test well TW-1 declined by 0.06 foot, then resumed recovery. It is assumed that when the pumping began in test well TW-4, the sediments in the overlying clay and finer sand units were compressed due to lateral pumping stresses, causing a reduced porosity and the rise of water in test well TW-1. It is also assumed that when the pumping is stopped, the overlying sediments contracted, resuming the similar characteristics prior to pumping, due to the decrease in lateral pressure.

Ground-Water Quality

Wells in the area of the Hazardous Waste Disposal Facility yield very saline water. Very saline water is defined as water having a dissolved solids concentration of 10,000 to 35,000 milligrams per liter (Hem, 1985, p. 157). Fresh ground water, defined as water having a dissolved-solids concentration less than 1,000 milligrams per liter, is present in alluvial fans along the mountain fronts (fig. 11). Ground water increases in salinity from the mountain fronts toward the facility. Ground water near the Hazardous Waste Disposal Facility typically has large concentrations of dissolved solids, calcium, magnesium, sodium, chloride, and sulfate (Kelley and Hearne, 1976, p. 44).

The potentiometric-surface map (fig. 6) indicates that ground water flows towards the southwest in the vicinity of the Hazardous Waste Disposal Facility. Although the gradient is quite flat in the area of the facility, test wells TW-1, TW-2, and TW-3 are hydrologically upgradient from the landfill; test well TW-4 is hydrologically downgradient from the landfill (figs. 2 and 6). Test wells TW-1, TW-2, and TW-3 are considered background sampling sites.

Water in test wells in the vicinity of the Hazardous Waste Disposal Facility were sampled from January through September 1989 (tables 7-9). The water samples were analyzed for dissolved solids, nutrients, trace elements, and organic and synthetic chemical compounds. Laboratory analytical methods are listed in table 10. Water in test wells TW-1, TW-2, TW-3, and TW-4 contained dissolved-solids concentrations of greater than 14,500 milligrams per liter and is considered nonpotable (tables 7 and 11). Chloride and

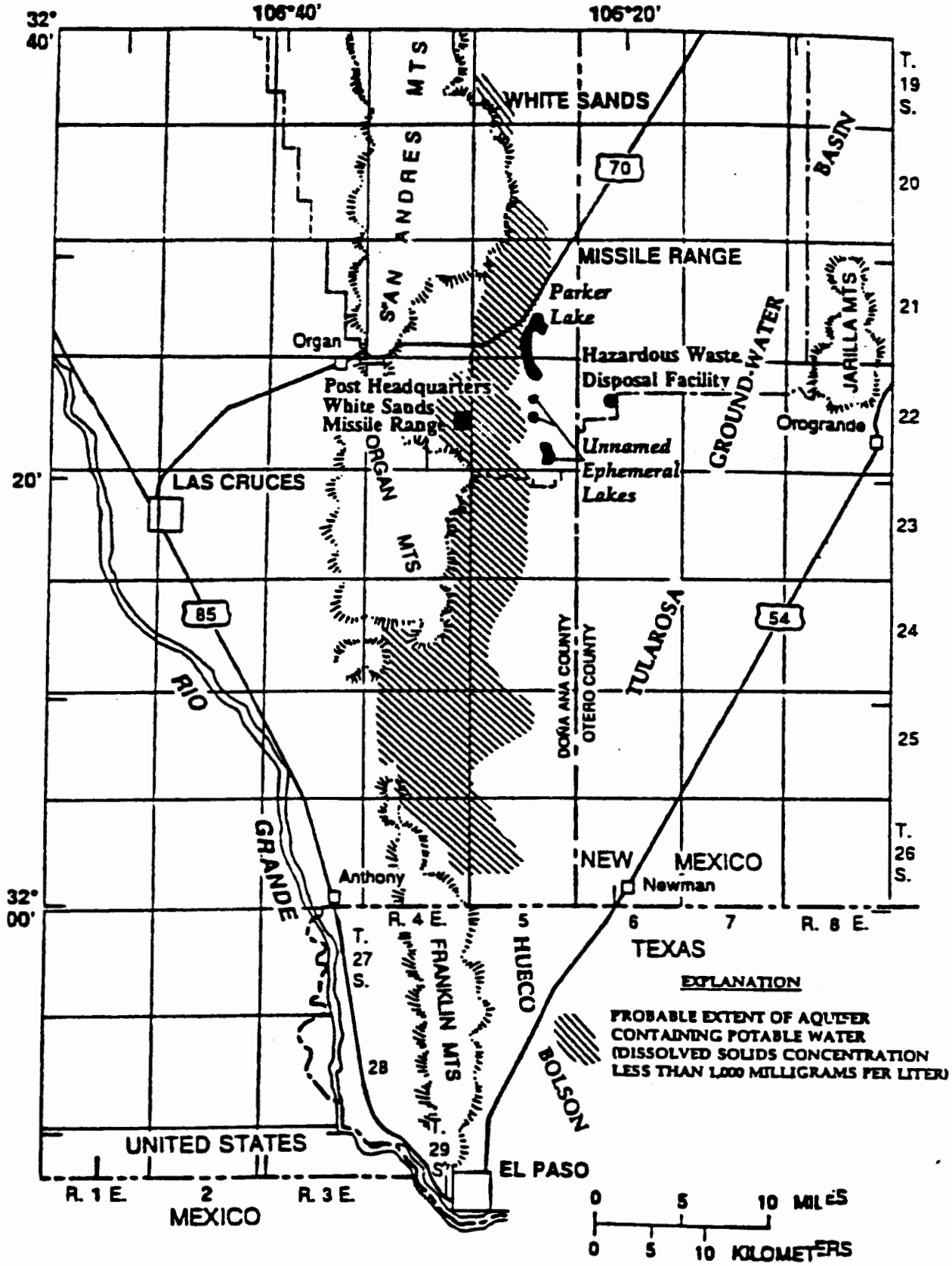

Figure 11.—Location of aquifer containing potable water (modified from Cooper, 1970, and White Sands Missile Range, 1975).

Table 7.--Physical properties of, and major dissolved solids, and nutrients in water from wells in the vicinity of the Hazardous Waste Disposal Facility, White Sands Missile Range

[Ft, feet; min, minute; gal/min, gallons per minute; uS/cm, microsiemens per centimeter at 25 degrees Celsius; °C, degrees Celsius; mg/L, milligrams per liter; <, less than; —, no data]

Well name	Well number	Date	Time	Depth of well, total (ft)	Pump or flow period prior to sampling (min)	Flow rate, instantaneous (gal/min)	Specific conductance (uS/cm)	pH (standard units)
TW-1	22S.06E.16.233	01-04-89	1400	285	—	—	21,000	7.0
TW-2	22S.06E.16.234	01-10-89	1450	285	—	—	20,600	7.0
TW-3	22S.06E.16.234A	01-12-89	1420	290	—	—	20,600	7.2
TW-4	22S.06E.16.412	09-27-89	1130	407	244	110	—	--
		09-27-89	1330	407	464	110	19,900	7.2

Well name	Alkalinity (mg/L as $CaCO_3$)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Potassium, dissolved (mg/L as K)	Chloride, dissolved (mg/L as Cl)	Sulfate, dissolved (mg/L as SO_4)	Fluoride, dissolved (mg/L as F)	Silica, dissolved (mg/L as SiO_2)
TW-1	181	990	820	2,800	25	6,600	3,800	0.20	33
TW-2	148	1,100	820	2,500	27	6,700	3,100	0.10	36
TW-3	141	1,200	800	2,700	27	6,900	3,000	0.20	30
TW-4	—	—	—	—	—	—	—	—	—
	241	560	760	3,600	28	3,700	8,000	0.30	30

Well name	Nitrogen, ammonia total (mg/L as N)	Nitrogen, ammonia + organic total (mg/L as N)	Nitrogen, NO_2+NO_3 total (mg/L as N)	Nitrogen, NO_2+NO_3 dissolved (mg/L as N)	Phosphorus total (mg/L as P)	Phosphorus ortho, dissolved (mg/L as P)	Dissolved solids, total dissolved mg/L	Temperature water (°C)
TW-1	—	—	—	1.20	—	—	15,900	26.5
TW-2	—	—	—	1.60	—	—	14,900	26.5
TW-3	—	—	—	1.60	—	—	14,800	26.0
TW-4	—	—	—	—	—	—	—	—
	0.200	0.40	<0.100	<0.100	0.060	<0.010	16,800	—

Table 8.--Trace elements in water from wells in the vicinity of the Hazardous Waste Disposal Facility, White Sands Missile Range

[ug/L, micrograms per liter; <, less than; —, no data]

Well name	Well number	Date	Time	Arsenic, dissolved (ug/L as As)	Barium, dissolved (ug/L as Ba)	Beryllium, dissolved (ug/L as Be)	Boron, dissolved (ug/L as B)	Cadmium, dissolved (ug/L as Cd)	Chromium, dissolved (ug/L as Cr)
TW-1	22S.06E.16.233	01-04-89	1400	26	100	—	290	<1.0	5
TW-2	22S.06E.16.234	01-10-89	1450	29	100	—	300	<1.0	5
TW-3	22S.06E.16.234A	01-12-89	1420	3	100	—	270	<1.0	4
TW-4	22S.06E.16.412	09-27-89	1130	—	—	—	—	—	—
		09-27-89	1330	2	<100	<10	590	<2.0	6

Well name	Cobalt, dissolved (ug/L as Co)	Copper, dissolved (ug/L as Cu)	Iron, dissolved (ug/L as Fe)	Lead, dissolved (ug/L as Pb)	Manganese, dissolved (ug/L as Mn)	Molybdenum, dissolved (ug/L as Mo)	Nickel, dissolved (ug/L as Ni)	Silver, dissolved (ug/L as Ag)	Strontium, dissolved (ug/L as Sr)	Zinc, dissolved (ug/L as Zn)
TW-1	—	4	80	<5	40	—	—	1.0	23,000	510
TW-2	—	22	80	<5	40	—	—	<1.0	28,000	710
TW-3	—	5	80	<5	160	—	—	<1.0	28,000	1,200
TW-4	—	—	—	—	—	—	—	—	—	—
	<1	14	280	<2	110	33	2	<2.0	850	100

Well name	Antimony, dissolved (ug/L as Sb)	Aluminum, dissolved (ug/L as Al)	Selenium, dissolved (ug/L as Se)	Lithium, dissolved (ug/L as Li)
TW-1	—	—	6	340
TW-2	—	—	9	340
TW-3	—	—	10	330
TW-4	—	—	—	—
	<1	60	<1	—

Table 9.--Organic and synthetic chemical compounds in water from wells in the vicinity of the Hazardous Waste Disposal Facility, White Sands Missile Range

[ug/L, micrograms per liter; <, less than; —, no data]

Well name	Well number	Date	Time	Dichlorobromomethane total (ug/L)	Carbontetrachloride total (ug/L)	1,2-Dichloroethane total (ug/L)	Bromoform total (ug/L)	Chlorodibromomethane total (ug/L)	Chloroform total (ug/L)
TW-1	22S.06E.16.233	01-04-89	1400	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TW-2	22S.06E.16.234	01-10-89	1450	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TW-3	22S.06E.16.234A	01-12-89	1420	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TW-4	22S.06E.16.412	09-27-89	1130	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		09-27-89	1330	—	—	—	—	—	—

Well name	Toluene total (ug/L)	Benzene total (ug/L)	Acenaphthylene total (ug/L)	Acenaphthene total (ug/L)	Anthracene total (ug/L)	Benzo B fluoranthene total (ug/L)	Benzo K fluoranthene total (ug/L)	Benzo-a-pyrene total (ug/L)	Bis 2-chloroethyl ether total (ug/L)	Bis (2-chloroethoxy) methane total (ug/L)
TW-1	0.30	<0.20	—	—	—	—	—	—	—	—
TW-2	0.60	<0.20	—	—	—	—	—	—	—	—
TW-3	1.30	<0.20	—	—	—	—	—	—	—	—
TW-4	<0.20	<0.20	—	—	—	—	—	—	—	—
	—	—	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<5.0	<5.0

Well name	Bis (2-chloroisopropyl) ether total (ug/L)	N-butyl benzyl phthalate total (ug/L)	Chlorobenzene total (ug/L)	Chloroethane total (ug/L)	Chrysene total (ug/L)	Diethyl phthalate total (ug/L)	Dimethyl phthalate total (ug/L)	Ethylbenzene total (ug/L)	Fluoranthene total (ug/L)
TW-1	—	—	<0.20	<0.20	—	—	—	<0.20	—
TW-2	—	—	<0.20	<0.20	—	—	—	<0.20	—
TW-3	—	—	<0.20	<0.20	—	—	—	<0.20	—
TW-4	—	—	<0.20	<0.20	—	—	—	<0.20	—
	<5.0	<5.0	—	—	<10.0	<5.0	<5.0	—	<5.0

Table 9.--Organic and syntheric chemical compounds in water from wells in the vicinity of the Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Well name	Well number	Date (ug/L)	Time (ug/L)	Fluor-ene total (ug/L)	Hexa-chloro-cyclo-pent-adiene total (ug/L)	Hexa-chloro-ethane total (ug/L)	Indeno (1,2,3-CD) pyrene total (ug/L)	Iso-phorone total (ug/L)	Methyl-bromide total (ug/L)
TW-1	22S.06E.16.233	01-04-89	1400	—	—	—	—	—	<0.20
TW-2	22S.06E.16.234	01-10-89	1450	—	—	—	—	—	<0.20
TW-3	22S.06E.16.234A	01-12-89	1420	—	—	—	—	—	<0.20
TW-4	22S.06E.16.412	09-27-89	1130	—	—	—	—	—	<0.20
		09-27-89	1330	<5.0	<5.0	<5.0	<10.0	<5.0	—

Well name	Methyl-chlo-ride total (ug/L)	Methyl-ene chlo-ride total (ug/L)	N-Nitro-sodi-N-propyl-amine total (ug/L)	N-Nitro-sodi-pheny-lamine total (ug/L)	N-Nitro-sodi-methy-lamien total (ug/L)	Nitro-benzene total (ug/L)	Para-chloro-meta cresol total (ug/L)	Phenan-threne total (ug/L)	Pyrene total (ug/L)	Tetra-chloro-ethyl-ene total (ug/L)
TW-1	<0.20	<0.20	—	—	—	—	—	—	—	<0.20
TW-2	<0.20	<0.20	—	—	—	—	—	—	—	<0.20
TW-3	<0.20	<0.20	—	—	—	—	—	—	—	<0.20
TW-4	<0.20	<0.20	—	—	—	—	—	—	—	<0.20
	—	—	<5.0	<5.0	<5.0	<5.0	<30.0	<5.0	<5.0	—

Well name	Tri-chloro-fluoro-methane total (ug/L)	1,1-Di-chroro-ethane total (ug/L)	1,1-Di-chloro-ethyl-ene total (ug/L)	1,1,1-Tri-chloro-ethane total (ug/L)	1,1,2-Tri-chloro-ethane total (ug/L)	1,1,2,2 Tetra-chloro-ethane total (ug/L)	Benzogh I peryl enel,12 benzop-erylene total (ug/L)	Benzo A anthrac enel,2-benzant-hracene total (ug/L)	1,2-Di-chloro-benzene total (ug/L)	1,2-Di-chloro-propane total (ug/L)
TW-1	<0.20	<0.20	<0.20	<02.0	<0.20	<0.20	—	—	<0.20	<0.20
TW-2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	—	—	<0.20	<0.20
TW-3	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	—	—	<0.20	<0.20
TW-4	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	—	—	<5.0	—
	—	—	—	—	—	—	<10.0	<5.0	<0.2	<0.20

Table 9.--Organic and synthetic chemical compounds in water from wells in the vicinity of the Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Well name	Well number	Date	Time	Penta-chloro-phenol total (ug/L)	Bis(2-ethyl hexyl) phthal-ate total (ug/L)	Di-N-butyl phthal-ate total (ug/L)	Vinyl chlo-ride total (ug/L)	Tri-chloro-ethyl-ene total (ug/L)	Aldrin, dis-solved (ug/L)
TW-1	22S.06E.16.233	01-04-89	1400	—	—	—	<0.20	<0.20	—
TW-2	22S.06E.16.234	01-10-89	1450	—	—	—	<0.20	<0.20	—
TW-3	22S.06E.16.234A	01-12-89	1420	—	—	—	<0.20	<0.20	—
TW-4	22S.06E.16.412	09-27-89	1130	—	—	—	<0.20	<0.2	<0.01
		09-27-89	1330	<30.0	<5.0	<5.0	—	—	--

Well name	Lindane, dis-solved (ug/L)	Chlor-dane, dis-solved (ug/L)	DDD, dis-solved (ug/L)	DDE, dis-solved (ug/L)	DDT, dis-solved (ug/L)	DI-eldrin dis-solved (ug/L)	Endrin, dis-solved (ug/L)	Tox-aphene, dis-solved (ug/L)	Hepta-chlor, dis-solved (ug/L)	Hepta-chlor-epoxide, dis-solved (ug/L)
TW-1	—	—	—	—	—	—	—	—	—	—
TW-2	—	—	—	—	—	—	—	—	—	—
TW-3	—	—	—	—	—	—	—	—	—	—
TW-4	0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<1.0	<0.01	—
	—	—	—	—	—	—	—	—	—	<0.01

Well name	PCB, dis-solved (ug/L)	Mala-thion, dis-solved (ug/L)	Para-thion, dis-solved (ug/L)	Di-azinon, dis-solved (ug/L)	Methyl para-thion, dis-solved (ug/L)	Hexa-chloro-benzene total (ug/L)	Hexa-chloro-but-adiene total (ug/L)	2,4-D, dis-solved (ug/L)	2,4,5-T, dis-solved (ug/L)	Mirex, dis-solved (ug/L)
TW-1	—	—	—	—	—	—	—	—	—	—
TW-2	—	—	—	—	—	—	—	—	—	—
TW-3	—	—	—	—	—	—	—	—	—	—
TW-4	<0.1	<0.01	<0.01	<0.01	<0.01	<1.0	<1.0	<0.01	<0.01	<0.01
	—	—	—	—	—	—	—	—	—	—

Table 9.--Organic and synthetic chemical compounds in water from wells in the vicinity of the Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Well name	Well number	Date	Time	1,2-Transdi chloro-ethene total (ug/L)	1,2,4-Tri-chloro-benzene total (ug/L)	1,2,5,6-Dibenz-anthra-cene total (ug/L)	1,3-Di-Chloro-propene total (ug/L)	1,3-Di-Chloro-benzene total (ug/L)	1,4-Di-Chloro-benzene total (ug/L)
TW-1	22S.06E.16.233	01-04-89	1400	<0.20	—	—	<0.20	<0.20	<0.20
TW-2	22S.06E.16.234	01-10-89	1450	<0.20	—	—	<0.20	<0.20	<0.20
TW-3	22S.06E.16.234A	01-12-89	1420	<0.20	—	—	<0.20	<0.20	<0.20
TW-4	22S.06E.16.412	09-27-89	1130	<0.20	—	—	<0.20	<0.20	<0.20
		09-27-89	1330	—	<5.0	<10.0	—	<5.0	<5.0

Well name	2-Chloro-ethyl-vinyl-ether total (ug/L)	2-Chloro-naph-thalene total (ug/L)	2-Chloro-phenol total (ug/L)	2-Nitro-phenol total (ug/L)	Di-N-octyl phthal-ate total (ug/L)	2,4-Di-chloro-phenol total (ug/L)	2,4-Di-methyl-phenol total (ug/L)	2,4-Di-nitro-toluene total (ug/L)	2,4,-Di-nitro-phenol total (ug/L)	2,4,6-Tri-chloro-phenol total (ug/L)
TW-1	<0.20	—	—	—	—	—	—	—	—	—
TW-2	<0.20	—	—	—	—	—	—	—	—	—
TW-3	<0.20	—	—	—	—	—	—	—	—	—
TW-4	<0.20	—	—	—	—	—	—	—	—	—
	—	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0	<20.0	<20.0

Well name	2,6-Di-nitro-toluene total (ug/L)	4-Bromo-phenyl phenyl ether total (ug/L)	4-Chloro-phenyl phenyl ether total (ug/L)	4-Nitro-phenol total (ug/L)	4,6-Dinitro-ortho-cresol total (ug/L)	Di-Chloro-di-fluoro-methane total (ug/L)	Pheno-(C6H-5OH) total (ug/L)	Naphth-alene total (ug/L)	Trans-1,3-di-chloro-propene total (ug/L)	Cis 1,3-di-chloro-propene total (ug/L)
TW-1	—	—	—	—	—	<0.20	—	—	<0.20	<0.20
TW-2	—	—	—	—	—	<0.20	—	—	<0.20	<0.20
TW-3	—	—	—	—	—	<0.20	—	—	<0.20	<0.20
TW-4	—	—	—	—	—	<0.20	—	—	<0.20	<0.20
	<5.0	<5.0	<5.0	<30.0	<30.0	—	<5.0	<5.0	—	—

Table 9.--Organic and synthetic chemical compounds in water from wells in the vicinity of the Hazardous Waste Disposal Facility, White Sands Missile Range--Concluded

Well name	Well number	Date	Time	Silvex, dis-solved (ug/L)	Styrene total (ug/L)	1,2-Dibromo ethane water whole total (ug/L)	Xylene total water whole tot rec (ug/L)	Tri-thion, dis-solved (ug/L)	Methyl-pri-thion, dis-solved (ug/L)
TW-1	22S.06E.16.233	01-04-89	1400	—	<0.2	<0.2	<0.2	—	—
TW-2	22S.06E.16.234	01-10-89	1450	—	<0.2	<0.2	<0.2	—	—
TW-3	22S.06E.16.234A	01-12-89	1420	—	<0.2	<0.2	<0.2	—	--
TW-4	22S.06E.16.412	09-27-89	1130	<0.01	<0.2	<0.2	<0.2	<0.01	<0.01
		09-27-89	1330	—	—	—	—	—	--

Well name	Ethion, dis-solved (ug/L)	Per-thane, dis-solved (ug/L)	Metho oxy-chlor, dis-solved (ug/L)	Endo-sulfan, dis-solved (ug/L)	2,4-DP, dis-solved (ug/L)	PCN, dis-solved (ug/L)
TW-1	—	—	—	—	—	—
TW-2	—	—	—	—	—	—
TW-3	—	—	—	—	—	—
TW-4	<0.01	<0.10	<0.01	<0.01	<0.01	<0.10
	—	—	—	—	—	—

Table 10.--Laboratory analytical methods

Parameter	Method
Specific conductance (Field Test)	Electrometric
pH (Field Test)	Electrometric, glass electrode
Alkalinity	Electrometric titration
Total dissolved solids	Gravimetric
Common cations	Atomic absorption spectrometric
Common anions	Colorimetric
Nutrients	Colorimetric
Trace elements (metals)	Atomic absorption spectrometric
Boron	Colorimetric
Chlorophenoxy acids	Gas chromatographic (O-7105-83)
Organochlorine and organophosphorous compounds	Gas chromatographic (O-1104-83)
Base/neutral extractable compounds	Gas chromatographic/mass spectrometric (O-3118-83)
Purgeable organic compounds	Gas chromatographic/mass spectrometric, purge and trap (O-3115-83)

Method Sources:

Fishman, M.J., and Friedman, L.C., eds., 1989, Methods for determination of inorganic substances in water and fluvial sediments: U.S. Geological Survey Techniques of Water-Resources Investigations, book 5, chap. A1, 554 p.

Wershaw, R.L., and others, eds., 1987, Methods for the determination of organic substances in water and fluvial sediments: U.S. Geological Survey Techniques of Water-Resources Investigations, book 5, chap. A3, 80 p.

Table 11.--Summary of maximum contaminant levels for selected water-quality constituents and properties for public water-supply systems[1/]

[—, no data; ug/L, micrograms per liter; mg/L, milligrams per liter]

Constituent	Maximum contaminant level[2/]	Secondary maximum contaminant level[3/]
Inorganic chemicals and related properties		
pH (standard units)	—	6.5 - 8.5
Arsenic (As)	50 ug/L	—
Barium (Ba)	1,000 ug/L	—
Cadmium (Cd)	10 ug/L	—
Chloride (Cl)	—	250 mg/L
Chromium (Cr)	50 ug/L	—
Copper (Cu)	—	1,000 ug/L
Iron (Fe)	—	300 ug/L
Lead (Pb)	50 ug/L	—
Manganese (Mn)	—	50 ug/L
Mercury (Hg)	2 ug/L	—
Nitrate (as N)	10.0 mg/L	—
Selenium (Se)	10 ug/L	—
Silver (Ag)	50 ug/L	—
Sulfate (SO_4)	—	250 mg/L
Zinc (Zn)	—	500 mg/L
Dissolved solids	—	500 mg/L
Fluoride (F)	4.0 mg/L	2 mg/L
Organic chemicals		
Endrin	0.2 ug/L	—
Lindane	4 ug/L	—
Methoxychlor	100 ug/L	—
Toxaphene	5 ug/L	—
2,4-D	100 ug/L	—
Silvex	10 ug/L	—
Volatile organic compounds[4/]		
Benzene	5 mg/L	—
Carbon Tetrachloride	5 mg/L	—
p-Dichlorobenzene	75 mg/L	—
1,2-Dichloroethane	5 mg/L	—
1,1-Dichloroethylene	7 mg/L	—
1,1,1-Trichloroethane	200 mg/L	—
Trichloroethylene	5 mg/L	—
Vinyl chloride	2 mg/L	—

1/ Public water system.—A system for the provision of piped water to the public for human consumption, if such system has at least 15 service connections or regularly serves at least 25 individuals daily at least 60 days out of the year.

2/ Maximum contaminant level.—The maximum permissible level of a contaminant in water that is delivered to the free-flowing outlet of the ultimate user of a public water system. Maximum contaminant levels are those levels set by the U.S. Environmental Protection Agency (1986a) in the National Primary Drinking Water Regulations. These regulations deal with contaminants that may have a substantial direct impact on the health of the consumer and are enforceable by Federal law.

3/ Secondary maximum contaminant level.—The advisable maximum level of a contaminant in water that is delivered to a free-flowing outlet of the ultimate user of a public water system. Secondary maximum contaminant levels are those levels proposed by the U.S. Environmental Protection Agency (1986b) in the National Secondary Drinking Water Regulations. These regulations deal with contaminants that may not have a substantial direct impact on the health of the consumer, but their presence in excessive quantities may affect the aesthetic qualities of the water and may discourage the use of a drinking-water supply by the public.

4/ Proposed maximum contaminant levels (U.S. Environmental Protection Agency, 1986a). The maximum contaminant level for tetrachloroethylene will be proposed later.

sulfate concentrations exceeded the U.S. Environmental Protection Agency (1986b) secondary maximum contaminant levels of 250 milligrams per liter for drinking water (tables 7 and 11), which is typical for the area.

The manganese concentration exceeded the secondary maximum contaminant level of 50 micrograms per liter in 2 of the 4 analyses with 160 micrograms per liter in water from test well TW-3 and 110 micrograms per liter in water from test well TW-4. Zinc exceeded the secondary maximum contaminant level of 500 micrograms per liter in 3 of the 4 analyses with 510 micrograms per liter in water from test well TW-1, 710 micrograms per liter in water from test well TW-2, and 1,200 micrograms per liter in water from TW-3. Selenium was less than the maximum contaminant level of 10 micrograms per liter (U.S. Environmental Protection Agency, 1986a) in water from test wells TW-1 and TW-2; selenium was detected at a concentration of 10 micrograms per liter in test well TW-3 and was not detected in test well TW-4 (tables 8 and table 11). The concentration of manganese and zinc in water from the upgradient wells signifies the presence of these metals, possibly in the bolson-fill deposits.

Analyses of organic and synthetic chemical compounds indicated detectable concentrations of toluene in water from test wells TW-1, TW-2, and TW-3 (table 9), all upgradient from the landfill. Detectable concentrations of toluene were 0.30 microgram per liter in water from test well TW-1, 0.60 microgram in water from test well TW-2, and 1.30 micrograms per liter in water from test well TW-3. Toluene was not detected in water from test well TW-4. Toluene is a common solvent used in laboratories and in glues. Concentrations of toluene might be traced to contamination of the water sample in the laboratory

environment or to the glue used to seal the well casing as was used in test wells TW-1, TW-2, and TW-3.

Lindane was detected in water from test well TW-4 at a concentration of 0.01 microgram per liter (table 9), the minimum laboratory detection limit. The maximum contaminant level of lindane is 4 micrograms per liter (table 11). Water samples from the other test wells were not analyzed for lindane. All other analyses for organic and synthetic chemical compounds indicated no detection.

SUMMARY

An investigation of geohydrologic conditions of the Hazardous Waste Disposal Facility on the White Sands Missile Range was conducted to aid in evaluating the potential for migration of hazardous chemical wastes, buried in the landfill, through the uppermost aquifer to nearby water-supply wells or to surface water. The investigation included: (1) a compilation of information on the characteristics of the chemical compounds buried in the landfill; (2) a water balance of precipitation, evaporation, surface-water inflow and outflow, and ground-water recharge and discharge; (3) identification of selected geohydrologic characteristics of the unsaturated zone and the shallow aquifer; and (4) identification of the quality of ground water in the vicinity of the facility.

About 250 various types of identified chemical compounds and 126 unknown chemical compounds and other waste materials were buried in six separate burial cells at the landfill from April 1972 to October 1981. The burial sites were excavated and the contents removed in 1989-90. Information about the molecular formula, molecular weight, water solubility, and health effects for a number of the chemical compounds were summarized.

Mean annual precipitation at the Hazardous Waste Disposal Facility is about 11.45 inches with about 50 percent falling in July, August, and September. Annual potential evaporation at the facility is estimated at 65 inches, more than 5 times the precipitation. Precipitation is the source of natural recharge to the ground-water system at the facility. Most precipitation at the facility is evaporated except during periods of intense precipitation. When precipitation is greater than potential evaporation, recharge to the ground-water system might occur.

A long-term recharge rate of 0.019 inch per year was estimated for the Hazardous Waste Disposal Facility. The estimate is based on the assumptions that the movement of soil water is vertical and the medium is isotropic The bolson-fill is heterogeneous and the medium is anisotropic. The rate of flow of water through the unsaturated zone is affected by the less permeable clay lenses resulting in limited vertical movement.

The Hazardous Waste Disposal Facility is underlain by unconsolidated Quaternary alluvium and bolson-fill deposits of interbedded clay, silt, sand, and gravel. The thickness of these deposits exceeds 6,000 feet about 4 miles west of the facility.

Depth to water at the Hazardous Waste Disposal Facility is 230 feet below the land surface; the water table slopes in a south-southwest direction at about 1 foot per mile in the area of the facility and at about 7 feet per mile northwest of the facility. Four test wells are located in the vicinity of the facility; test wells TW-1, TW-2, and TW-3 were drilled during a previous study upgradient of the landfill. Test well TW-4 was drilled during this study downgradient of the facility. Each test well penetrated clay zones with dominant clay zones penetrated in test wells TW-2, TW-3, and TW-4. Transmissivity values calculated from a constant-rate aquifer test conducted in test well TW-4 ranged from 1,000 to 1,300 feet squared per day. Specific capacity of the aquifer in the area tested was 2.10 gallons per minute per foot of drawdown. In calculating hydraulic conductivity, it was assumed that the water-yielding zone was directly adjacent to the 80 foot screen of the pumped well, test well TW-4. Using the estimated transmissivity values from 1,000 to 1,300 feet squared per day, the estimate of the average hydraulic conductivity for the assumed water-producing zone ranged from 12.5 to 16.3 feet per day.

Ground water in the area typically contains concentrations of dissolved solids ranging from 10,000 to 35,000 milligrams per liter; the water is considered very saline. There are no water-supply wells yielding potable water in the area of the facility. Chemical analyses of the ground water at the facility indicated concentrations of 110-160 micrograms per liter manganese and 510-1,200 micrograms per liter zinc in water from test wells upgradient from the landfill. Concentrations of toluene ranging from 0.30-1.30 micrograms per liter were detected in water from test wells upgradient from the landfill. Toluene might be traced to contamination of the water sample by laboratory environment or where glue containing toluene was used to seal the well casing sections as was done in test wells TW-1, TW-2, and TW-3. Lindane was detected at the detection limit of 0.01 microgram per liter in water from test well TW-4. The recommended limit of lindane in public-water supplies is 4 micrograms per liter.

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SUPPLEMENTAL INFORMATION

Table 12.–Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missle Range

[--, no data]

EXPLANATION

Molecular formula: Elements in the molecular formula are listed according to the Hill convention (C,H, then other elements in alphabetical order) (Budavari and others, 1989).

CAS number: Chemical Abstracts Service registry number.

Molecular weight: The sum of the relative atomic masses of the elements in a molecule (Lucius and others, 1989). Molecular weight is provided for chemical compounds having a known specific structure.

Water solubility: The ability of the chemical compound to be dissolved in water using weight percentages.

Source of data: A, Budavari and others, 1989; B, Verschueren, 1983; C, Buckingham, 1982; D, U.S. Environmental Protection Agency, 1988a; E, Lucius and others, 1989.

Abbreviations: g, gram; mL, milliliter; °C, degrees Celsius; <, less than; >, greater than; umoles/L, micromoles per liter; mg, milligrams; %, percent.

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Acacia	--	1962147	240,000	Almost completely soluble in twice its weight in water	--	A	--
Acacia Powder	--	--	--	--	--	--	See Acacia
Acetamide	C_2H_5NO	60355	59.07	1 g dissolves in 0.5 mL water	Expected carcinogen; mild irritant	A,C	Solubilizer, renders sparingly soluble substances more soluble in water
Acidic Copper solution	--	--	--	--	--	--	See Copper
Acidic Rhodium solution	--	--	--	--	--	--	See Rhodium
Aldrin	$C_{12}H_8Cl_6$	309002	364.93	Insoluble	Poisonous, toxic	A	--
Alizarin	$C_{14}H_8O_4$	72480	240.20	Soluble in 300 parts boiling water	--	A	Alizarin is synthesized from 2-athraquinonesulfonic acid sodium salt
Alizarin Cyanone Green F	$C_{28}H_{20}N_2$-$Na_2O_8S_2$	4403901	622.58	--	--	A	Green powder
Alizarin Cyanone green dye	--	--	--	--	--	--	See Alizarin Cyanone Green F
Alizarin Red	--	--	--	--	--	--	Synonym for Alizaron Pigment Red; See Alizaron
Alizarin Sodium Monosulfonate	--	--	--	--	--	--	See Alizarin and Sodium Monosulfide
Allylacetate	--	--	--	--	--	--	--
1-Allyl-2-thiourea	$C_4H_8N_2S$	109579	116.19	Soluble in about 30 parts water	--	A	Synonym for Thiosinamine
Alodine	$C_7H_5NO_3$	--	155.15	Slightly soluble	--	A	--
3-(α-acetonylbenzyl)-4-hydroxycoumarin	$C_{19}H_{16}O_4$	81812	308.32	Practically insoluble	Toxic	A	Synonym for Warfarin

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Alpha isomer of 2-Carbomethoxy-1-methylvinyl dimethyl phosphate	--	--	--	--	--	--	See 2-Carbomethoxy-1-methylvinyl dimethyl phosphate
Aluminum Chloride	$AlCl_3$	7446700	133.34	1 g dissolves in 0.9 mL water	Strong irritant in anhydrous form	A	Explosive violence when combined with water
Aluminum Potassium Sulfate	$AlKO_8S_2$	10043671	258.20	1 g dissolves in 20 mL cold or 1 mL boiling water, usually incomplete	--	A	Used in purifying water
Aluminum Quinolate	--	--	--	--	--	--	--
Aluminum Sulfate	$Al_2O_{12}S_3$	10043013	342.14	Soluble in 1 part water	--	A	--
Amberlite IR-120 ion exchange resin	--	9079258	--	--	--	A	Synthetic, high capacity cation and anion exchange resins
5-Amino-2-naphthalenesulfonic acid	$C_{10}H_9NO_3S$	119799	223.25	Soluble in 1000 parts water	--	A	Synonym for Cleve's Acid
Ammonium Chloride	ClH_4N	12125029	53.50	22.9% soluble at 0° C to 39.6% at 80° C	--	A	Hydrochloric acid and sodium chloride decrease solubility in water
Ammonium Hydrosulfide	H_5NS	12124991	51.11	Freely soluble	Irritant, toxic	A	Synonym for Ammonium Bisulfide
Ammonium Molybdate	$H_{24}Mo_7N_6O_{24}$	12027677	1,163.89	Soluble in 2.3 parts water	--	A	--
Ammonium Molybdate solution	--	--	--	--	--	--	See Ammonium Molybdate
Amorphous Phosphorus	--	--	--	--	--	--	See Phosphorus
Amorphous Red Phosphorus	--	--	--	--	--	--	See Red Phosphorus
Aniline	C_6H_7N	62533	93.12	1 g dissolves in 28.6 mL water	Poisonous; intoxication may occur from inhalation, ingestion or, cutaneous absorption	A	Combustible; volatile with steam

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Anthracene	$C_{14}H_{10}$	120127	178.22	Insoluble	--	A	--
Arecoline Hydrobromide	$C_8H_{14}BrNO_2$	300083	236.11	1 g dissolves in about 1 ml water	--	A	--
Aromatic petroleum derivative solvent	--	--	--	--	--	--	--
Arsenic	As	7440382	74.92	Insoluble	Very toxic	A	--
Arsenic contaminated Chromic Acid solution	--	--	--	--	--	--	See Arsenic and Chromic Acid solution
Arsenic Trioxide	As_2O_3	1327533	197.82	Slowly soluble in cold water; soluble in 15 parts boiling water	Intensely poisonous; corrosive to skin	A	Primary material for all arsenic compounds
Arsenic Trioxide solution	--	--	--	--	--	--	See Arsenic Trioxide
Ascarite	HNaO	1310732	40.01	1 g dissolves in 0.9 mL water, 0.3 mL boiling water	Corrosive to all tissues; emetic, prostration and collapse upon ingestion	A,D	Synonym of Sodium Hydroxide
Ascarite Silica	--	--	--	--	--	--	See Ascarite and Sodium Silicate
Azodrin	$C_7H_{14}NO_5P$	6923224	223.16	Miscible with water	--	A	Synonym for Monocrotophos
Barium	Ba	7440393	137.33	--	All water or acid soluble barium compounds are poisonous	A	--
Barium Chloranilate	--	--	--	--	--	--	See Barium and Chloranilic Acid
Barium Chloride	$BaCl_2$	10361372	208.27	Very soluble	Poisonous	A	--
Barium Diphenylamine Sulfonate	--	--	--	--	--	--	See n-Phenylsulfanilic Acid, Barium salt

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Bay 9015	--	--	--	--	--	--	Animal drug; See Bayer 9015
Bayer Aspirin	--	--	--	--	--	--	--
Bayer 9015	$C_{12}H_6Cl_3N_2O_6$	--	345.09	--	--	A	Synonym for Menichlopholan
Benzenearsonic Acid	$C_6H_7ASO_3$	98055	202.03	Soluble in 40 parts water	--	A	--
Benzil	$C_{14}H_{10}O_2$	134816	210.22	Insoluble	--	A	--
Benzoic Acid	$C_7H_6O_2$	65850	122.12	Sparingly water soluble. Solubility increases with alkaline substances	Mild irritant	A,C	Volatile with steam
1,1-Bis(chlorophenyl-)-2,2,2-trichloroethanol	$C_{14}H_9Cl_3O$	115322	370.47	Insoluble	--	A	Synonym for Dicofol
2,4-Bis(isopropylamino)-6-methylthio-s-triazine	$C_{10}H_{19}N_5S$	7287196	241.37	Solubility in water at 20° C: 48 ppm	--	A	Synonym for Prometryn
1,4 Bis-trichloromethylbenzol	$C_8H_4Cl_6$	68360	312.86	--	--	A	--
Black dye	--	--	--	--	--	--	--
Black grease							
Boric Acid	BH_3O_3	10043353	61.84	1 g dissolves in 18 mL cold water, 4 mL boiling water	Toxic; death from ingestion of 5 g in infants and 5-20 g in adults	A	--
Bromobenzene (mono)	C_6H_5Br	108861	157.02	Practically insoluble	Irritant	A	Monobromobenzene
Bromonaphthalene	--	--	--	--	--	--	See 1-Bromonaphthalene or 2-Bromonaphthalene
o-Bromonaphthalene	$C_{10}H_7Br$	90119	207.07	Slightly soluble	--	A	Volatile with steam

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
1-Bromonaphthalene	$C_{10}H_7Br$	90119	207.07	Slightly soluble	--	A	Volatile with steam
2-Bromonaphthalene	$C_{10}H_7Br$	580132	207.09	Slightly soluble	--	A	--
Bromothymol Blue	$C_{27}H_{28}Br_2O_5S$	76595	624.39	Sparingly soluble	--	A	--
Brucine	$C_{23}H_{26}N_2O_4$	357573	394.47	1 g dissolves in 1320 ml water	Very poisonous	A	--
Bumamidine Hydrochloride	$C_{25}H_{39}ClN_2O$	1055556	419.05	--	--	A	--
2,3-Butanedione	$C_4H_6O_2$	431038	86.09	Soluble in about 4 parts water	--	A,C	Synonym for Diacetyl; highly flammable
N-Butyl-n-ethyl-α,α,α-trifluoro-2,6-dinitro-p-toluidine	$C_{13}H_{16}F_3N_3O_4$	1861401	335.29	Solubility in water at 25° C: < 1 mg/L	--	A	Synonym for Benfluralin
Cadmium	Cd	7440439	112.41	Insoluble	Carcinogen, toxic, irritant	A	--
Cadmium Propionate	--	--	--	--	--	--	See Cadmium
Calcium Hydroxide	CaH_2O_2	1305620	74.10	Slightly soluble	--	A	--
Calcium Oxide	CaO	1305788	56.08	Water soluble forming $Ca(OH)_2$ and generating large quantity of heat	Strong caustic; causes severe irritation	A	--
Captan	$C_9H_8Cl_3NO_2S$	133062	300.57	Practically insoluble	Toxic	A	--
Carbaryl insecticide (1-naphthyl-N-methyl-carbamate)	--	--	--	--	--	--	See Carbaryl(1-naphthy-N-methyl-carbamate)
Carbaryl(1-naphthyl-N-methyl-carbonate)	$C_{12}H_{11}NO_2$	63252	201.22	120 mg dissolves in 1 liter water at 30° C	Toxic	A	--
2-Carbomethoxy-1-methylvinyl-dimethyl phosphate	$C_7H_{13}O_6P$	7786347	224.16	Miscible with water	Toxic	A	Synonym for Mevinphos

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Carbophenothion	$C_{11}H_{16}Cl\text{-}O_2PS_3$	786196	342.85	Practically insoluble	Toxic	A	--
Carbopol	--	9007209	--	Reacts with fatty amines to form thick and stable emulsions of oils in water	--	A	Synonym for Carboxypolymethylene; highly ionic and slightly acetic
Carbopol resin	--	--	--	--	--	--	See Carbopol
Cellulose	$(C_6H_{10}O_5)n$	9004346	--	Practically insoluble	--	A	--
Cellulose Gum	--	--	--	--	--	--	See Cellulose
Charcoal	--	--	--	--	--	--	--
Chloranilic Acid	$C_6H_2Cl_2O_4$	87867	208.99	--	--	A	Reacts with metal cations to form stable salts
Chlordane	$C_{10}H_6Cl_8$	57749	409.80	Insoluble	Poisonous; irritant	A	--
Chlorine	Cl	7782505	35.45	Soluble	Irritant, toxic	A	--
Chlorine solution in water	--	--	--	--	--	--	See Chlorine
Chloroacetic Acid Sodium salt	$C_2H_2ClNaO_2$	79118	116.48	85 g dissolves in 100 ml water at 20° C	Irritant	A	--
Chloroform	$CHCl_3$	67663	119.38	1 mL dissolves in 200 mL water at 25° C	Carcinogen	A,B,C	--
1-Chloronaphthalene	$C_{10}H_7Cl$	90131	162.61	--	--	A	Volatile with steam
Cholin Esterase	--	9001085	--	--	--	A	--
Cholin Esterase inhibitor	--	--	--	--	--	--	See Choline Esterase
Chromate coating	--	--	--	--	--	--	See Chromium
Chromic Acid solution	--	--	--	--	--	--	See Chromic Hydroxide

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Chromic Hydroxide	CrH_3O_3	1308141	103.03	Practically insoluble	--	A	--
Chromic Oxide	Cr_2O_3	1308389	152.02	Practically insoluble	Possible irritant	A	--
Chromic Sulfate	$Cr_2O_{12}S_3$	10101538	392.20	Practically insoluble	--	A	Basic chromic sulfates of type $Cr(OH)SO_4.nH_2O$ are readily soluble in water
Chromium	Cr	7440473	51.996	--	Irritant, carcinogen	A	--
Chromium Oxide	--	--	--	--	--	--	See Chromic Oxide
Chromium Sulfate	--	--	--	--	--	--	See Chromic Sulfate
Citric Acid	$C_6H_8O_7$	77929	192.12	Very soluble	--	A,C	--
Clioxanide	$C_{15}H_{10}Cl-I_2NO_3$	14437413	541.54	--	--	A	--
Colchicine	$C_{22}H_{25}NO_6$	64868	399.43	1 g dissolves in 22 mL water	Highly toxic; irritant, expected carcinogen and teratogen	A,C	--
Congo Red	$C_{32}H_{22}N_6-Na_2O_6S_2$	573580	696.67	Soluble	--	A	--
Copper	Cu	7440508	63.546	--	--	A	--
Copper Sulfate	--	--	--	--	--	--	See Cupric Sulfate
Copper(ous) Cyanide	--	--	--	--	--	--	See Cuprous Cyanide
Crotonaldehyde	C_4H_6O	4170303	70.09	18.1 g dissolves in 100 g water at 20° C	Strong irritant	A	--
Cupric Sulfate	$CuSO_4$	7758987	159.61	Soluble	Strong irritant	A	--
Cuprous Cyanide	CuCN	544923	89.56	Practically insoluble	Poisonous	A	--
Cyanide solution	--	57125	--	--	--	D	--

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
2,4-D	$C_8H_6Cl_2O_3$	94757	221.04	Almost insoluble	Moderately toxic; irritation to eyes and causes gastrointestinal disturbances	A,C	--
DDT	$C_{14}H_9Cl_5$	50293	354.50	Practically insoluble	Poisoning may occur by ingestion or by absorption through the skin or respiratory tract; death occurs in 2 to 24 hours; carcinogin	A	--
Diazinon	$C_{12}H_{21}N_2O_3PS$	333415	304.36	0.004% water soluble at 20° C	Teratogen; highly toxic; cholinesterase inhibitor	A,C	--
2,4-Diaminophenol Dihydrochloride	$C_6H_{10}ClN_2O$	95863	--	Solubility in water at 10°C: 27g/100 mL	--	A	--
3,6 Dichloro-o-anisic acid	$C_8H_6Cl_2O_3$	1918009	221.04	Very slightly soluble	--	A	Synonym for Dicamba
1,1-Dichloro 2,2 bis (p-ethylphenyl ethane)	$C_{16}H_{16}CL_2$	72560	307.27	Practically insoluble	Toxic	A	--
2,5-Dichloro-3,6-dihydroxy-p-benzoquinone Mercury derirative	--	--	--	--	--	--	--
2,2-Dichlorovinyl dimethyl phosphate	$C_4H_7Cl_2O_4P$	62737	220.98	About 1g/100 mL	Toxic	A,D	Synonym for Dichlorous
Dieldrin	$C_{12}H_8Cl_6O$	60571	380.93	Practically insoluble	Highly toxic; readily absorbed through skin	A,C	--
Diethylaniline	$C_{10}H_{15}N$	91667	149.23	1 g dissolves in 70 mL water at 12°C	--	A	Volatile with steam
N-Diethylaniline	--	--	--	--	--	--	See Diethylaniline
O,O-Diethylo-(2-isopropyl-4-methyl-6-pyrinidinyl)phosphorothioate (Diazinone)	--	--	--	--	--	A	Synonym for Diazinone; see Diazinone
1,5-Dihydroxy-anthraquinone	$C_{14}H_8O_4$	117124	240.20	Slightly soluble	--	A,C	Synonym for Anthrarufin

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
4,5-Dihydroxy-2,7-naphthalene Disulfonic Acid	$C_{10}H_8O_8S_2$	148254	320.29	Soluble	--	A,C	--
4,5-Dihydroxy-2,7-napthalene Disulfonic acid Disodium salt	--	--	--	--	--	A	See 4,5-Dihydroxy-2,7-Naphthalene-Disulfonic Acid
Diiodomethane	CH_2I_2	75116	267.87	Soluble in about 70 parts water	--	A	Synonym for Methylene Iodide
Dimethamine salt of 3,6-dichloro-o-anisic acid	--	--	--	--	--	A	See 3,6-Dichloro-o-anisic acid
Dimethylamine salts of 2,4-dichloro-phenoxy acetic acid	--	94757	--	Soluble	Moderately toxic; irritant	A,C	Amine salts of 2,4-D; see also 2,4-D
p-Dimethylamino-benzalrhodanine	$C_{12}H_{12}N_2OS_2$	536174	264.36	Practically insoluble	--	A	--
p-Dimethylaminobenzo-phenone	$C_{15}H_{15}NO$	530449	225.28	Insoluble water	--	A	--
p-(p-Dimethylamino-phenylazo) Benzene arsonic Acid	--	--	--	--	--	A	See p-Dimethylaminobenzophenone and Benzenearsonic Acid
O,O-Dimethyl S-[4 oxo-1,2,3,-benzo-triazin-3(4H)-yl-methyl] phosphoro-dithioate	--	--	--	--	--	A	See Phosphorodithioic Acid
O,O-Dimethyl S-[4 oxo-1,2,3-benzo-tria-3(4H)yimethyl] phosphorodithioate	--	--	--	--	--	A	See Phosphorodithioic Acid
O,O Dimethyl-(2-chloro-4-nitrophenyl)	--	--	--	--	--	A	See O,O-Dimethyl O-(2-chloro-4-nitrophenyl)phosphorothioate
O,O-Dimethyl O-(2-chloro-4-nitrophenyl) phosphorothioate	$C_8H_9ClNO_5PS$	2463845	297.68	Practically insoluble	Toxic	A	Synonym for Dicapthon

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
N,N Dimethyl-2,2 diphenylacetamide	$C_{16}H_{17}NO$	957517	239.30	Soluble	--	A	Synonym for Diphenamid
3,3'-Dimethyl-1,1'-diphenyl-(4,4'-bi-2-pyrazoline)5,5'dione	--	--	--	--	--	--	--
Dimethylester of tetrachloroterephtholic acid	$C_{10}H_6Cl_4O_4$	1861321	331.99	Less than 5% in water	--	A	Synonym for DCPA
Dimethyl Phosphate of 3-hydroxy-N-methyl cisrotonamide	$C_7H_{14}NO_5P$	6923224	223.16	Miscible with water	--	A	Synonym for Monocrotophos
Dimethyl Phosphate of a-methylbenzyl-3-hydroxy-cis-crotanonate	--	--	--	--	--	--	See Dimethylphosphate of 3-hydroxy-N-methyl cisrotonamide
4,4 Dinitrodiphenyl	$C_{13}H_{10}N_4O_5$	587906	302.24	Soluble in $2x10^{-4}$ g water/100 ml solvent	--	A	Synonym for 4,4'-Dinitrocarbanilide
Dinitro(1-methyl heptyl) phenol	--	--	--	--	--	--	--
Dinitro(1-methyl heptyl)phenyl crotonate	--	--	--	--	--	--	--
9,10-Diphenylanthracene	--	--	--	--	--	--	See Anthracene
Diphenylbenzidine	--	--	--	--	--	--	See N,N'-Diphenylbenzidine
N,N'-Diphenylbenzidine	$C_{24}H_{20}N_2$	531919	336.42	Insoluble	--	A	--
1,1-Diphenylhydrzine Hydrochloride	$C_{12}H_{12}N_2$-.HCl	530507	184.23	Slightly soluble	--	A	--
Diphenylmethane	$C_{13}H_{12}$	101815	168.23	--	--	A	--
2,5-Diphenyloxazole	--	--	--	--	--	--	--
1,5-Diphenyl-3-thiocarbohydrazide	--	--	--	--	--	--	--

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Diphenylthiocarbozone	$C_{13}H_{12}N_4S$	60106	256.32	Insoluble	--	A	Synonym for Dithizone
Diphenylthiooxazone	--	--	--	--	--	--	--
Dithiooxamide	$C_2H_4N_2S_2$	79403	120.20	Slightly soluble	--	A,D	Synonym for Rubeanic acid
Egg Albumen	--	--	--	Dried albumen swells in water, then dissolves gradually	--	A	Egg white, dried egg white
Endosulfan	$C_9H_6Cl_6O_3S$	115297	406.95	Practically insoluble	--	A	--
2-Ethoxynaphthalene	$C_{12}H_{12}O$	93185	172.22	Practically insoluble	--	A	--
N-Ethyl-a-naphthylamine	--	--	--	--	--	--	See 2-Ethoxynaphthalene
Ethyl Cyanide	C_3H_3N	107120	55.08	Solubility in water at 40° C: 11.9 g/100 g water	Poisonous when heated to decomposition or on contact with acids	A	Synonym for Propionitrile
Ethylene Dichloride	C_2H_4Cl	107062	98.96	Soluble in about 120 parts water	Possible irritant, toxic	A	--
Ethyl Salicylate	$C_9H_{10}O_3$	118616	166.17	Slightly soluble	--	A	--
Ferric Chloride	Cl_3Fe	7705080	162.22	Readily soluble	Anyhdrite form is irritant	A	--
Ferric Chloride solution	--	--	--	--	--	--	See Ferric Chloride
Flowers of Sulfur	S	7704349	32.06	Insoluble	Possible irritant	A	--
Fluoroanthene	$C_{16}H_{10}$	206440	202.00	Almost insoluble	Toxic; irritant, carcinogen, mutagen	C	--
Formaldehyde	CH_2O	50000	30.03	Very soluble	Intensily irritating to mucus membranes; carcinogen	A,C	--
Formaldehyde Solution	--	--	--	--	--	--	See Formaldehyde
Fuchsin(e)	$C_{22}H_{20}ClN_3$	632995	337.85	2.65 parts dissolve in 1,000 parts water	--	A	Synonym of Magenta I

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
α-Furildioxime	$C_{10}H_8N_2O_4$	522270	220.18	--	--	A	--
Furil Dioxime	--	--	--	--	--	--	See α-Furildioxime
Glycerol	$C_3H_8O_3$	56815	92.09	Miscible with water	--	A	--
Heptachlor	$C_{10}H_5Cl_7$	76448	373.35	--	Carcinogen; poisonous	A,C	--
Hexachloroethane	C_2Cl_6	67721	236.74	Insoluble	Irritant	A	--
Hexachlorophene	$C_{13}H_6Cl_6O_2$	70304	406.92	Practically insoluble	Potential neurotoxicity in humans	A	--
Hydrazine Sulfate	$H_6N_2O_4S$	10034932	130.12	Soluble in 33 parts water; freely soluble in hot water	Carcinogen	A	--
Hydrochloric Acid	HCl	7647010	--	Soluble	Corrosive, irritant, toxic	A	--
Hydrochloric Acid solution	--	--	--	--	--	--	See Hydrochloric Acid
Hydrolyzed Polyvinyl Alcohol	--	--	--	--	--	--	See Polyvinyl Alcohol
Hydroquinone	$C_6H_6O_2$	123319	110.11	Soluble in 14 parts water	Toxic in concentrations usually greater than 1 g	A,C	--
8-Hydroxy-7-iodo-5-quinoline Sulfonic Acid	$C_9H_6INO_4$	547911	351.13	1 g dissolves in 500 ml cold, 170 mL boiling water	--	A	--
8-Hydroxyquinoline	C_9H_7NO	148243	145.15	Almost insoluble	--	A	--
Indigo Carmine	$C_{16}H_8N_2$-$Na_2O_8S_2$	860220	466.37	1 g dissolves in water at 25° C	--	A	--
Indolebutyric Acid	$C_{12}H_{13}NO_2$	133324	203.23	Practically insoluble	Causes tumors in rats	A	--
Iodoform	CHI_3	75478	393.78	Very slightly soluble	--	A	Volatile with steam
Iron Oxide	FeO	1345251	71.85	Very soluble	--	A	Synonym for Ferrous Oxide

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Iron Oxide	Fe_2O_3	1309371	159.70	--	Dust causes benign pneumoconiosis	A	Synonym for Ferric Oxide
Isobutyraldehyde	C_4H_8O	78842	72.10	110 g/L at 20° C	--	A	--
Isoparaffinic Petroleum Hydrocarbons	--	8001603	--	Immiscible	--	A	Oxidized petroleum hydrocarbons; Synonym for Isopar and Coparaffinate
Isopentyl Salicylate	--	--	--	--	--	--	--
Kelthane	$C_{14}H_9Cl_5O$	115322	370.47	Insoluble	--	A, C	Synonym for Dicofol
Kelthane 35 1,1 bis-(chlorophenyl)-2,2,2 trichloroethanol	--	--	--	--	--	--	Synonym for Kelthane; see Kelthane
Kelthane Solution	--	--	--	--	--	--	See Kelthane
Lead Arsenate	$PbHAsO_4$	10102484	--	Insoluble	Poisonous	A	--
Lead Nitrate	N_2O_6Pb	10099748	331.23	1 g dissolves in 2 mL cold, 0.75 mL boiling water	Poisonous	A	--
Limonene	$C_{10}H_{16}$	138863	136.23	Practically insoluble	Irritant	A	--
d-Limonene	--	--	--	--	--	--	See Limonene
Linoleic Acid	$C_{18}H_{32}O_2$	60333	280.44	--	--	A	--
Liquid Resin	--	--	--	--	--	--	--
Lithium 2,4-dichlorophenoxyacetate	--	--	--	--	--	--	--
Malathion	$C_{10}H_{19}O_6PS_2$	121755	330.36	Slightly soluble	Expected carcinogen	A,C	--
Malathion/aromatic hydrocarbon	--	--	--	--	--	--	See Malathion
Manganese Dioxide	MnO_2	1313139	86.94	Insoluble	--	A	Strong oxidizer should not be heated or rubbed with organic matter or oxidizable substances

Table 12.–Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range–Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Mercuric Nitrate	HgN_2O_6	10045940	324.66	Soluble	Poison	A	--
Mercuric Nitrate solution	--	--	--	--	--	--	See Mercuric Nitrate
Mercuric Oxide	HgO	21908532	216.61	Practically insoluble	Poisonous	A	Red or yellow precipitate
Mercurous Chlorate	$Cl_2Hg_2O_6$	10294447	568.08	Sparingly soluble	--	A	--
Mercurous Chloride	Cl_2Hg_2	10112911	472.09	Practically insoluble	Excessive doses may cause mercuric poisoning	A	--
Mercurous Fluoride	F_2Hg_2	13967254	429.22	Hydrolyzed in water to form mercury, mercuric acid, and hydrofluoric acid	--	A	--
Mercurous Nitrate	$Hg_2N_2O_6$	10415755	525.19	Soluble in 13 parts water containing 1% HNO_3	Poisonous	A	--
Mercurous Silico-fluoride	--	--	--	--	--	--	See Mercurous Fluoride
Mercurous Perchlorate	--	--	--	--	--	--	See Mercurous Chlorate
Mercury Chloride	--	--	--	--	--	--	See Mercurous Chloride
Mesityl Oxide	$C_6H_{10}O$	141797	98.14	Soluble in about 30 parts water	--	A	--
Metanil Yellow	$C_{18}H_{14}N$-NaO_3S	587984	375.38	Soluble	--	A	--
Methocel	--	9004675	--	Soluble in cold water; insoluble in hot water	--	A	Synonym for Methylcellulose
Methocel-methyl Cellulose	--	--	--	--	--	--	See Methocel
2-Methoxy-4,6-bis (isopropylamino)-s-triazine	$C_{10}H_{19}N_5O$	1610180	225.29	Solubility in water at 20° C: 750 ppm	--	A	Synonym for Prometon

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
2-Methoxy-3-6-dichlorobenzoic acid dimethylamine salt	$C_9H_6Cl_2O_3$	1918009	221.04	Very slightly soluble	--	A	Synonym for Dicamba
Methylene Blue	$C_{16}H_{18}ClN_3S$	61734	319.85	1 g dissolves in about 25 mL water	--	A	--
N-Methyl naphthalamine	--	--	--	--	--	--	--
2-Methyl-4-nitroaniline	$C_7H_8N_2O_2$	99092	152.	--	--	C	--
N-Methyl-p-nitroaniline	--	--	--	--	--	--	See 2-Methyl-4-nitroaniline
Methyl Sulfate	CH_4O_4S	75934	112.10	Freely soluble	Poisonous; highly toxic; suspected carcinogen	A,C	--
Methyl Violet	--	--	--	--	--	--	--
Methyl Violet B	--	--	--	--	--	--	--
Monobromobenzene	$C_6H_7NO_3S$	108861	157.02	Practically insoluble	Irritant to skin	A	--
Monomethylparamino Phenol Sulfate	$C_{14}H_{20}N_2O_6S$	55550	344.38	Soluble in 20 parts cold, 6 parts boiling water	--	A	Synonym for p-Methylaminophenol Sulfate
Montmorillonite Clay	$R^+_{0.33}(Al_2, Mg)_2Si_4O_{10}(OH_2)n.H_2O$	1318930	--	--	Respiratory irritation	A	R^+ in natural material, includes one or more of the cations N^+, K^+, Mg^{2+}, and Ca^{2+}, and possilby others
Morin	$C_{15}H_{10}O_7$	480160	302.23	1 gram dissolves in 4 liters water at 20° C; 1060 mL boiling water	--	A	--
Nickel	Ni	7440020	58.69	Not affected by water	May cause dermatitis or nausea; anticipated carcinogen	A	--
Nickel/Platinum-H_2O Solution	--	--	--	--	--	--	See Nickel and Platnium

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Nicotine	$C_{10}H_{14}N_2$	54115	162.23	Miscible with water below 60° C	--	A	Volatile with steam; volume contracts when mixed with water
Nigericin	$C_{40}H_{68}O_{11}$	28380247	724.98	Practically insoluble	--	A	--
Nigrosine Black Dye	--	--	--	--	--	--	See Nigericin
m-Nitroacetophenone	--	--	--	--	--	--	--
p-Nitroaniline	$C_6H_6N_2O_2$	100016	138.12	1 g dissolves in 1,250 mL water, 45 mL in boiling water	Highly toxic; absorbed through skin	A	--
Nitrobenzene Sulfonylchloride	--	--	--	--	--	--	--
5-Nitro-2-furaldehyde Semioxamazone	$C_7H_6N_4O_3$	3270711	226.15	--	--	A	Synonym for Nifuraldezone
Nitron	$C_{20}H_{16}N_4$	487887	312.36	Practically insoluble	--	A	--
1-Nitronaphthalene	$C_{10}H_7NO_2$	86577	173.16	Insoluble	Moderate irritant	A,C	--
1-Nitroso-2-naphthol	$C_{10}H_7NO_2$	131919	173.16	Soluble in 1000 parts water	--	A	--
5-Nitro-1-naphthylamine	$C_{10}H_8N_2O_2$	3272911	188.	--	--	C	--
N-Oleyl 1,2-propylene diamine salt of 2,4-D, in inert oil	--	--	--	--	--	--	See Propylenediamine and 2,4-D
Nonvolatile Alkanolamine salts of 2,4-D	--	--	--	--	--	--	See 2,4-D
Paraformaldehyde	$(CH_2O)_n$	30525894	--	Slowly soluble in cold water, more readily soluble in hot water	--	A	--
Parlodian strips (Nonexplosive cellulose [illegible]rate)	--	--	--	--	--	A	Synonym for Pyroxylin

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
2,4 Pentanedion	$C_5H_8O_2$	123546	100.11	1 part dissolves in about 8 parts water	Mild irrigant	A	Synonym for Acetylacetone
Petroleum oil	--	--	--	Insoluble	--	A	--
Phenol	C_6H_6O	108952	94.11	1 g dissolves in 15 mL water	Poisonous; death, average fatal dose is 15 g; death has occured from 1 g dose; highly toxic by skin contact	A,C	Volatilizes with steam
Phenol Red	$C_{19}H_{14}O_5S$	143748	354.37	1 g dissolves in about 1,300 mL water	--	A	Synonym for Phenolsulfonphthalein
Phenyl Hydrazine	$C_6H_8N_2$	100630	108.14	Sparingly soluble	Toxic	A	--
Phenylmercuric Acetate	$C_8H_8HgO_2$	62384	336.75	Soluble in about 600 parts water	--	A	--
Phenyl Mercuric Acid	$C_6H_6HgO_2$	62384	336.75	Soluble in about 600 parts water	--	A	--
p-Phenylsulfanilic Acid, Barium salt	$(C_{12}H_{10}N-O_3S)_2Ba$	101575	249.28	Slightly soluble	Poisonous	A	--
Phosphate detergent	--	--	--	--	--	--	--
Phosphoric Acid	H_3O_4P	7664382	98.00	Soluble	Irritant	A	--
Phosphorodithioic Acid	$C_{14}H_{12}N_3O_3-PS_2$	86500	317.34	Solubility in water at 25° C: 33 mg/L	Cholinesterase inhibitor	A	Synonym for Azinphos-methyl
Phosphorus	P	7723140	30.97	--	Irritant; toxic	A	Exists in three forms, white, black and red
Phosphorus Pentachloride	Cl_5P	10026138	208.27	Hydrolyzed in water to form phosphoric acid and hydrogen chloride	Irritant; corrosive	A	--
o-Phthalidicarboxaldehyde	--	--	--	--	--	--	--
Picric Acid	$C_6H_3N_3O_7$	88891	229.11	1 g dissolves in 78 mL water, 15 mL	Explosive, toxic	A	--

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Picric Acid in H_2O	--	--	--	--	--	--	See Picric Acid
O,O'Pictho-p-nitrite phenol thiosphate	--	--	--	--	--	--	--
Platinum	Pt		195.08	Not affected by water	May cause dermatitis and respiratory problems	--	--
Polyvinyl Alcohol	--	9002895	--	Essentially soluble in hot and cold water but those coded 20-105 require alcohol-water mixtures	--	A	--
Polyvinyl Resin	--	--	--	--	--	--	--
Potassium Alum	--	--	--	--	--	--	Synonym for Aluminum Potassium Sulfate; see Aluminum Potassium Sulfate
Potassium Chromate (VI)	CrK_2O_4	7789006	194.20	Soluble in 1.6 parts cold water, 1.2 parts boiling water	--	A	--
Potassium Cyanide	CKN	151508	65.11	Soluble in 2 parts cold water; 1 part boiling water	Voilent poison	A	--
Potassium Dichromate	$Cr_2K_2O_7$	7778509	294.21	Soluble	Internally corrosive; poison	A	--
Potassium Hydroxide	HKO	1310583	56.10	Soluble in 0.9 part water, 0.6 part boiling water; much heat is generated when dissolved in water	Extremely corrosive; irritant; fatal	A	--
Potassium Iodide	IK	7681110	166.02	1 g dissolves in 0.7 mL water, 0.5 mL boiling water	--	A	--
Potassium Manganate (VI)	K_2MnO_4	10294641	197.12	Soluble	--	A	With HCl it gives free chlorine

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Potassium Nickel Cyanide	--	--	--	--	--	--	See Potassium Cyanide and Nickel
Potassium Sulfide	K_2S	1312738	110.26	Freely soluble	--	A	May explode on percussion or rapid heating
Propazine	$C_9H_{16}ClN_5$	139402	230.09	8.6 ppm in water at 20° C	--	A	--
Propylenediamine	$C_3H_{10}N_2$	78900	74.13	Very soluble	--	A	--
Pulegone	$C_{10}H_{16}O$	89827	152.23	Practically insoluble	--	A	--
Pyrophyllite	Al_2O_5Si	12141467	162.05	--	--	A	Synonym for Aluminum Silicate
Quinaldine	$C_{10}H_9N$	91634	143.18	Practically insoluble	Irritant	A	--
Rafoxanide	$C_{19}H_{11}Cl_2I_2NO_3$	22662391	626.01	Practically insoluble	--	A	--
Red Phosphorus	P	7723140	30.97	--	Irritant; toxic	A	Also exists in white and black forms
Rhodium	Rh	7440166	102.91	--	--	A	--
Salicylanilide	$C_{13}H_{11}NO_2$	87172	213.24	Slightly soluble	--	A	--
Salicylic Acid	$C_7H_6O_3$	69727	138.12	1 g dissolves in 460 mL water	Irritant; mental disturbances	A,C	Volatile with steam
Sevin: Carbaryl(1-naphthyl-N-methyl-carbonate)	--	--	--	--	--	A	Synonym for Carbaryl(1-naphthyl-N-methyl-carbonate); See Carbaryl (1-naphthyl-N-methyl-carbonate)
Silver	Ag	7440224	107.87	--	Most silver salts are irritating to skin	A	--
Silver Cyanide	CAgN	506649	133.90	Insoluble	Poisonous	A	--
Sipon-sulfated fatty alcohol	--	75218	--	--	--	A	A Polyoxyethylene Alcohol
Sodium Arsenite	$NaAsO_2$	7784465	--	Freely soluble	Very poisonous	A	Molecular formula is approximate

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Sodium Cyanide	CNNa	143339	49.02	Freely soluble	Violent poison	A	--
Sodium Hydroxide	HNaO	1310732	40.01	1 g dissolves in 0.9 mL water, 0.3 mL boiling water	Corrosive to all tissues	A	--
Sodium Monosulfide	Na_2S	1313822	78.05	Soluble	--	A	Synonym for Sodium Sulfide
Sodium Silicate	Na_2SiO_3	1344098	--	Very slightly soluble	Irritant; caustic	A	Water glass; molecular formula varies
Solid Green Dye	--	--	--	--	--	--	--
Solution of Copper Sulfate, Sodium Arsenite and Nicotine	--	--	--	--	--	--	See Copper Sulfate, Sodium Arsenite, and Nicotine
Starch	$(C_6H_{10}O_5)_n$	--		Practically insoluble in cold water	--	A	--
Streptomycin Sulfate	$C_{42}H_{84}N_{14}O_{36}S_2$	3810740	--	Less than 20 mg/mL at about 28° C	--	A	--
Sulfuric Acid	H_2O_4S	7664939	98.08	Miscible with water	Corrosive to all body parts; toxic	A	Has a great affinity for water, abstracting it from the air and from many organic substances
Sulfuric Acid solution	--	--	--	--	--	--	See Sulfuric Acid
Synthetic Resin (Permount)	--	--	--	--	--	--	--
Tannic Acid	--	--	--	1 g dissolves in 0.35 mL water	--	A	--
Terphenyl	--	--	--	--	--	--	--
p-Terphenyl	$C_{18}H_{14}$	92944	230.3	--	--	C	--
Tetrachlorethylene	C_2Cl_4	127184	165.85	Soluble in 10,000 volume water	Narcotic in high concentrations. Defatting action on skin may lead to dermatitis	A	--
Tetrachlorethylene capsules	--	--	--	--	--	--	See Tetrachlorethylene

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Continued

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Thallium Chloride	ClTl	7791120	239.85	Soluble in 260 parts water	Poisonous	A	--
Thick resin	--	--	--	--	--	--	--
Thiram	$C_6H_{12}N_2S_4$	137268	240.44	Insoluble	Irritant	A	--
Thymol Blue	$C_{27}H_{30}O_5S$	76619	466.58	Insoluble	--	A	--
Toxaphene	$C_{10}H_{10}Cl_8$	8001352	--	Practically insoluble	Toxic; carcinogen	A	--
Trace Ferric Chloride contaminated diatomaceous earth	--	--	--	--	--	--	See Ferric Chloride
Trichloroacetic Acid	$C_2HCl_3O_2$	76039	163.40	Soluble in 0.1 part water	Very corrosive; toxic; carcinogenic	A,C	--
Trichlorfon	$C_4H_8Cl_3O_4P$	52686	257.45	Solubility at 25°C: 15.4 g/100 mL water	Cholinesterase inhibitor	A	--
Trichlorphon	--	--	--	--	--	--	See Trichlorfon
Trifluralin	$C_{13}H_{16}F_3N_3O_4$	1582098	335.29	Slightly soluble, 0.0024 g/mL	--	A	--
Trifluralin(α,α,α-trifloro-2,6-dinitro-N,N-dipropyl-p-toluidine)	--	--	--	--	--	--	Synonym for Trifluralin; see Trifluralin
(α,α,α-Trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine)	--	--	--	--	--	--	Synonym for Trifluralin; see Trifluralin
Triphenyl Bismuth	$C_{18}H_{15}Bi$	603338	440.	--	--	C	--
Xylene	C_8H_{10}	1330207	106.16	Practically insoluble	May be narcotic in high concentrations	A	--
Zinc Acetate	$C_4H_6O_4Zn$	557346	183.46	1 g dissolves in 2.3 mL water, 1.6 mL boiling water	--	A	--

Table 12.--Molecular formula, molecular weight, water solubility, and health effects of chemical compounds buried at the landfill, Hazardous Waste Disposal Facility, White Sands Missile Range--Concluded

Chemical	Molecular formula	CAS number	Molecular weight	Water solubility	Health effects	Source of data	Remarks
Zinc Chloride	Cl_2Zn	7646857	136.29	Soluble	Moderate irritant	A	--
Zinc Chloride solution	--	--	--	--	--	--	See Zinc Chloride
Zinc Cyanide	C_2N_2Zn	557211	117.42	Insoluble	Poisonous	A	--
Zinc Sulfate	$ZnSO_4$	7733020	161.44	Soluble	Irritant	A	--
Zinc Sulfide	SZn	1314983	97.45	Insoluble	--	A	--

APPENDIX E

HEALTH AND SAFETY PLAN

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APPENDIX E
SITE SPECIFIC HEALTH AND SAFETY PLAN

1.0 INTRODUCTION

An evaporation tank located at the Hazardous Waste Storage Facility (HWSF), White Sands Missile Range (White Sands) was removed and properly disposed in 1994. The HWSF evaporation tank is identified in Module VIII [Hazardous and Solid Wastes Amendments (HSWA) Corrective Action] of the Resource Conservation Recovery Act (RCRA) Part B Permit as Solid Waste Management Unit (SWMU) 90. The evaporation tank was constructed of concrete and consisted of an inner and outer tank. The unit was used as an evaporation basin for waste photographic solutions. Following evaporation, the remaining sludge was typically drummed and disposed in the Hazardous Waste Landfill at White Sands (SWMU 91). All material disposed in the Hazardous Waste Landfill was excavated and disposed at an approved hazardous waste disposal facility. There is no documentation logging the quantity of wastes placed in or removed from the evaporation tank.

White Sands began clean closure activities for the evaporation tank in 1992. Soil samples collected from beneath the evaporation tank concrete floor identified elevated levels of trichloroethylene (TCE). The TCE concentrations were identified within leachate extracted during the Toxicity Characteristic Leaching Procedure (TCLP) [Environmental Protection Agency (EPA) Methods 1311 and 8260). TCE concentrations ranged from below laboratory detection limits to 1.6 mg/L. White Sands applied for clean closure of the site and was subsequently denied by the State of New Mexico Environment Department (NMED) Hazardous and Radioactive Materials Bureau (HRMB) on 31 August 1993 because the soil samples were not analyzed for total concentrations of volatile organic compounds (VOCs). (White Sands, 1995).

Following denial of clean closure by NMED, White Sands prepared a revised Clean Closure Plan (dated 3 December 1993). The Clean Closure Plan contained a Sampling and Analysis Plan (SAP) that required the completion of twelve additional soil borings and the collection and analysis of soil samples for total concentrations of TCE and TCLP for VOCs. However, soil samples collected from this sampling event were only analyzed for TCLP for VOCs. No contamination was detected in the TCLP extract. NMED subsequently denied clean closure of the site because soil samples were not analyzed for total concentrations of TCE, as required in the 3 December 1993 Clean Closure Plan. Following a meeting in October 1998, NMED granted White Sands the opportunity to prepare a revised SAP to identify the presence or absence of TCE in the soil at the site. (White Sands, 1995).

2.0 HEALTH AND SAFETY ORGANIZATION

2.1 Project Organization

The project organizational structure and key project personnel are shown on Figure E-2-1. The MEVATEC personnel assigned specific health and safety responsibilities are identified below.

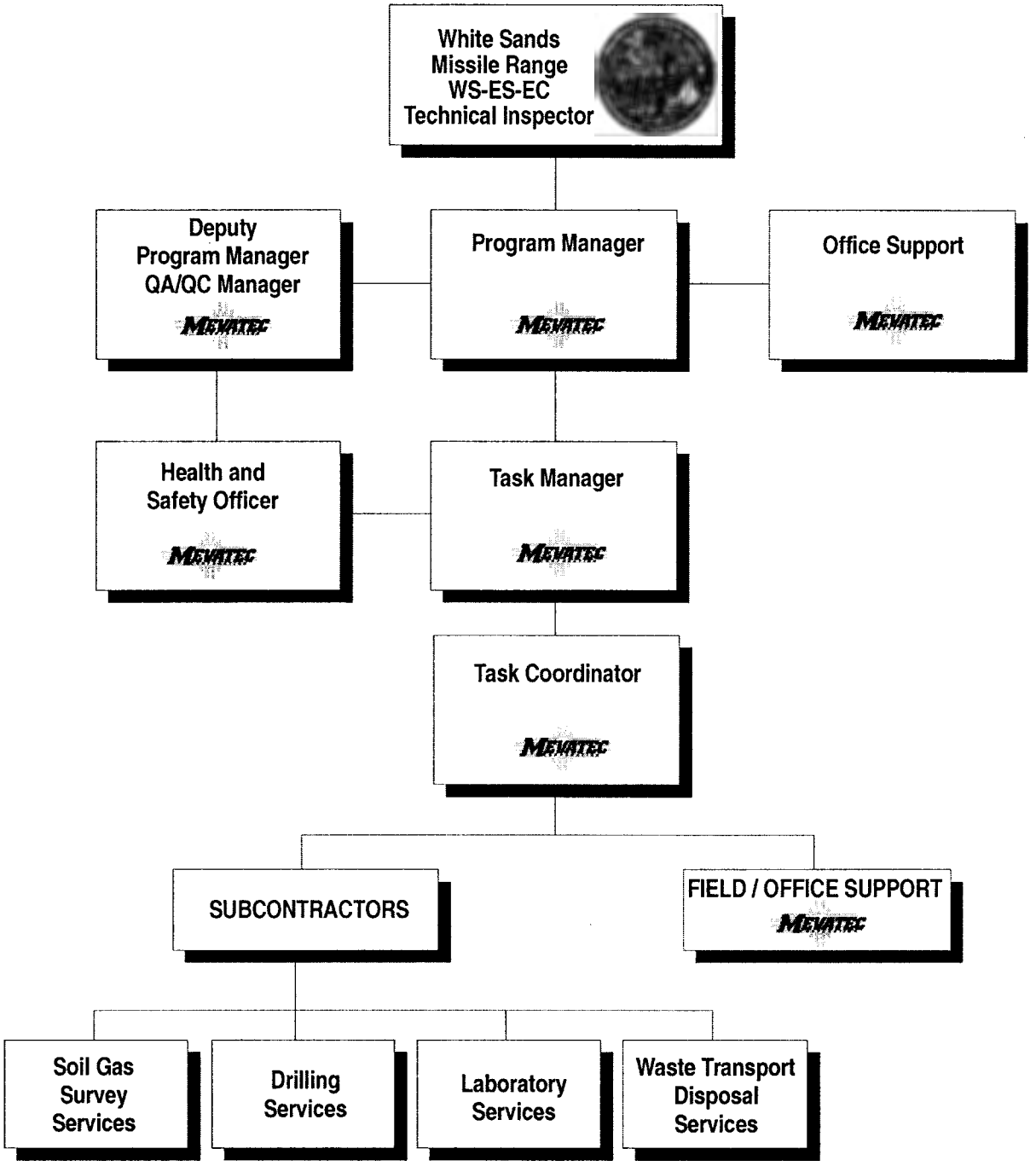

Figure E-2-1. Project Organization Structure.

Program Manager MEVATEC Corporation	Overall hazardous material program responsibility.
Deputy Program Manager MEVATEC Corporation	Responsible for oversight of Quality Assurance/Quality Control (QA/QC) and Health & Safety Programs.

Task Manager MEVATEC Corporation	Responsible for all site activities.
Task Coordinator MEVATEC Corporation	1. Responsible for all coordination issues during site activities. 2. Responsible for assembly and implementation of the Site Specific Health and Safety Plan (SSHSP).
Health and Safety Officer MEVATEC Corporation	Responsible for project review of health and safety issues and implementation of this SSHSP.

2.2 Responsibility and Authority of Key Personnel

The responsibility and authority of key personnel relative to the implementation of this SSHSP are described below.

2.2.1 Task Coordinator

The Task Manager has the following responsibilities:

- Reporting to the Program Manager
- Providing oversight of all health and safety matters.
- Reviewing and recommending approval of the SSHSP
- Verifying that the project is performed in a manner consistent with the SSHSP.
- Approving the Health and Safety Officer for the project.
- Coordinating with the Program Manager on health and safety matters.
- Temporarily suspending field activities if the health and safety of personnel are endangered.
- Reporting all infractions of the SSHSP to the MEVATEC Program Manager.
- Executing the SSHSP for the project.
- Interfacing with the Health and Safety Officer in matters of health and safety.
- Monitoring compliance with the SSHSP.
- Assisting the Health and Safety Officer in maintaining health and safety equipment for the project.
- Verify personnel working on-site have completed medical surveillance and health and safety training.
- Directing personnel to change work practices if they are deemed hazardous to the health and safety of the personnel.
- Removing personnel from the site if their action or condition endangers their health and safety or the health and safety of their co-workers.
- Performing and recording integrated personal air monitoring to characterize each employee's task exposure.

2.2.2 Health and Safety Officer

The Site Safety Officer responsibilities include:

- Reporting to the Health and Safety Officer.
- Directing daily site health and safety activities.
- Reporting safety-related incidents or accidents to the highest authority on-site person.
- Implementing the components of the SSHSP.
- Maintaining health and safety equipment on-site, as specified in the SSHSP.
- Performing daily site health and safety meetings and reporting results to the Health and Safety Officer.
- Maintaining documentation of health and safety measures taken at the site, including:
    - Communication of the SSHSP;
    - Levels of protection and required upgrades;
    - Environmental monitoring results; and
    - incident reporting.
- Upgrading or downgrading levels of protection in response to field conditions.
- Temporarily suspending field activities, if health and safety of personnel are endangered, pending further consideration by the Health and Safety Officer.
- Report all infractions of the SSHSP to the Health and Safety Officer.

3.0 SITE WORK PLAN SUMMARY

3.1 Project Objective

This plan serves as a site-specific addenda to the Accident Reporting and Safety Program dated 14 September 1995, developed by MEVATEC Corporation, for all activities conducted at White Sands Missile Range. The Accident Reporting and Safety Program provides minimum safety standards and accident prevention fundamentals to cover a range of activities at White Sands Missile Range. The components of this Site-Specific Health and Safety Plan cover site work for the performance of a soil gas survey, completion of soil borings, and development and sampling of four test wells at the HWSF (Figure E-3-1).

3.2 Project Tasks

- Soil gas survey
- Drill and sample soil borings
- Purge and sample four groundwater wells
- Investigation Derived Waste Management
- Site Restoration

Personnel Requirements: Up to nine employees

Note: All personnel on this site shall have received a copy of this site-specific health and safety plan and be aware of potential site hazards prior to entering the site.

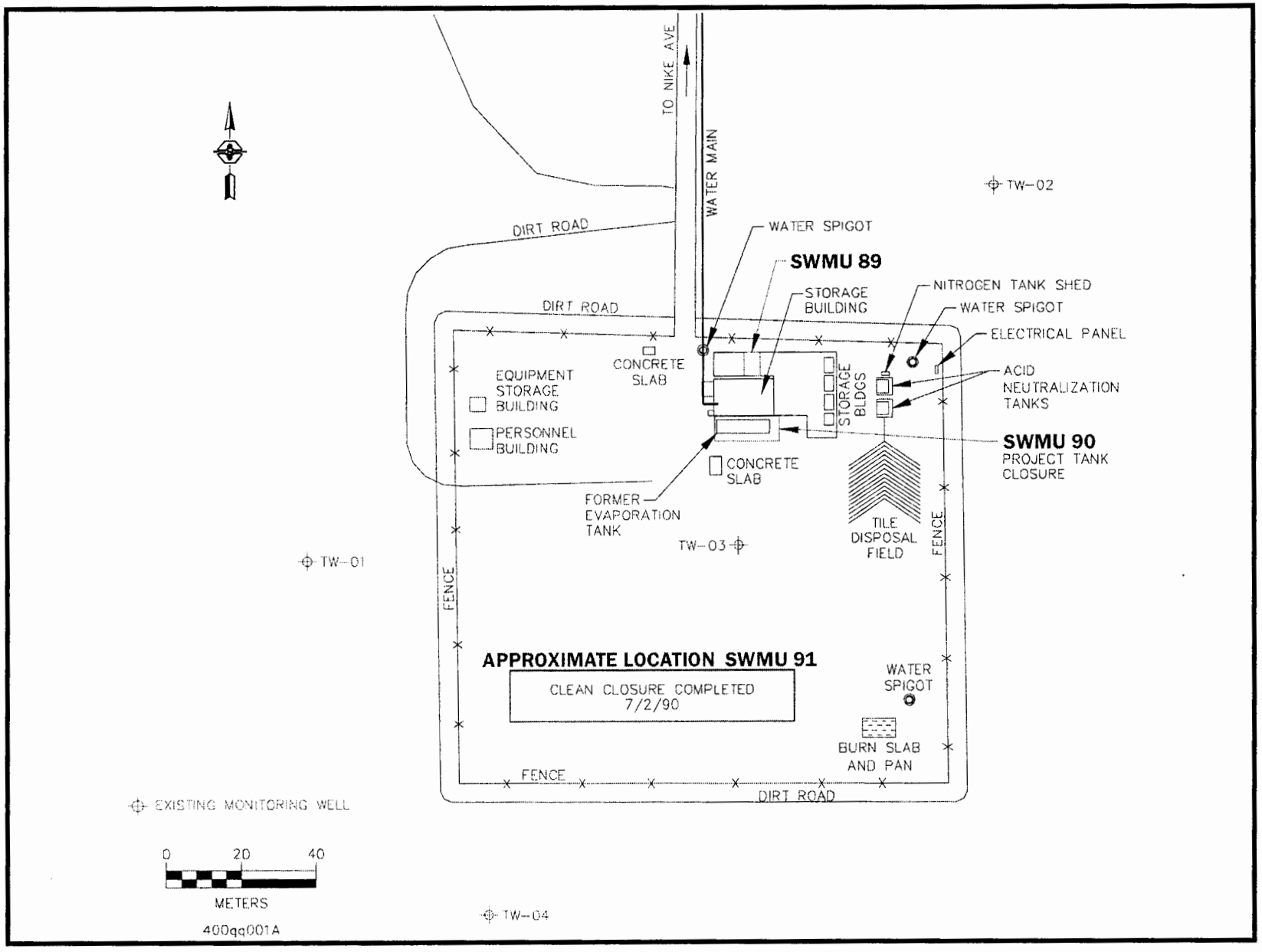

Figure E-3-1. Site Map of Hazardous Waste Storage Facility.

4.0 SITE CHARACTERIZATION AND ANALYSIS

4.1 General Site Information

The area for this project is primarily is located in within a cleared, fenced area. The work area is situated at an elevation of approximately 4000 feet (1,219 m). With an average rainfall of only 10.8 inches (27.4 cm), mostly occurring during late summer as thunderstorms, the area is considered arid. Average summer high temperature is 92° F (33.3° C) with lows of about 65° F (18.3° C). During winter months, the average high is 57° F (13.9° C) with an average low of 36° F (2.2° C). Average annual humidity readings are about 37 percent.

The HWSF, located approximately 8 miles (12.9 kilometers) east of the White Sands Missile Range Main Post Headquarters (Figure E-3-1), occupies approximately 2 acres (0.8 hectares). The HWSF functions as a 90 day storage area for hazardous waste generated on White Sands Missile Range. The evaporation tank reportedly last received waste in 1981.

Soil samples collected as part of clean closure activities at the evaporation tank indicated concentrations of trichloroethlyene (TCE) within Toxicity Characteristics leachate Procedure (TCLP) extract. Additionally, concentrations of cyanide and metals were detected.

4.2 Anticipated Hazards

4.2.1 Chemical Hazards

TCE may be encountered in soils or groundwater during drilling and monitoring well installation activities. The following provides a hazard analysis of toxicity and exposure information for TCE. The hazard analysis utilizes exposure and toxicity information was generated by the Occupational Safety and Health Administration, American Conference of Governmental Industrial Hygienists, the National Institute for Occupational Safety and Health, the National Toxicology Program, and International Agency for Research on Cancer and accepted industry data.

Route of Entry:	Inhalation, absorption, ingestion, and skin or eye contact
Target Organs:	eyes, skin, respiratory system, heart, liver
Hazard:	Low
PEL:	Not Reported
IDLH:	1000 parts per million

Moderate exposures to TCE can cause symptoms similar to alcohol inebriation. Higher concentrations can have a narcotic effect. Deaths occurring after heavy exposure have been attributed to ventricular fibrillation. Liver injury is not definitely established in occupational exposures.

4.2.2 Physical Hazards

Drilling activities include possible physical hazards which could result in cuts or punctures from sharp objects, falls from uneven terrain, steep grades or slippery surfaces, sprains and strains from lifting activities, noise, and detonation of unexploded ordnance. Personnel should be aware that as the level of personal protective equipment increases, dexterity and visibility may be impacted and performing some tasks may be more difficult.

Rotary drilling and other heavy equipment operations present inherent safety hazards. Employee experience in the use of such equipment and awareness to potential hazards will reduce risk. All equipment operations must be in accordance with guidelines set forth in applicable OSHA regulations.

The Accident Prevention Plan provided in Section 5.0 contains specific practices used to reduce or eliminate anticipated hazards which may be present and encountered during the site operations. Below each indicated hazard is a list of operations and/or tasks that may involve the indicated hazard. Specific actions that will be taken to control the respective hazards are indicated by an "X". These control measures may include work practice controls, engineering controls, and/or use of appropriate personal protective equipment.

4.2.3 Unexploded Ordnance

There is the potential that unexploded ordnance (UXO) or explosive materials may be present at the work areas. Prior to beginning any intrusive work at each site, White Sands Missile Range EOD personnel will be contacted to survey the area to evaluate the presence or absence of potential subsurface UXOs. All field personnel are required to review the UXO Orientation video and sign the orientation sheet prior to the start of field activities. Additionally, all field personnel will receive a UXO Range Hazards Card that must be kept on hand at all times. Finally, all field personnel will be verbally briefed daily regarding procedures to follow if ordnance is discovered.

4.2.4 Noise

Noise may be generated during site activities. Hearing protection, either ear muffs or ear plugs are mandatory in areas where the noise level exceeds 85 dBA steady-state or 120 dBA impulse. A noise meter will be onsite to monitor noise conditions (See Section 5.0).

4.2.5 Electrical Hazards

Electrical shock can occur by direct contact with live wires or with electrical equipment and instruments that are wet or have faulty wiring. Any extension cords used with the equipment should be checked for cuts or loose connections in the coating protecting the wires prior to use. All extension cords will also be connected to ground-fault circuit interrupters. Use of properly grounded and/or double insulated tools will also reduce the potential for electric shock. White Sands personnel will perform a comprehensive utility clearance prior to the start of drilling activities.

4.2.6 Underground Utility Lines

Underground utility lines present in the area will be located and marked to prevent accidental puncture or breakage. All contacts regarding the location of buried line with White Sands Missile Range personnel shall be documented. In the event of an unmarked buried utility line is damaged, work operations shall halt immediately and all fieldwork shall be stopped until the nature of the line is discovered and any required repairs completed. A copy of the utility clearance documentation will be on-hand at the site.

4.2.7 Biological Hazards

The field team should be aware that site activities may disturb the local wildlife population. Therefore, there is potential for field personnel to be bitten by snakes, animals, and insects. Prompt first aid measures are extremely important. All field team members should be properly briefed regarding the potential for encountering wildlife, as well as prompt first aid procedures in the event of a snake, insect, or animal bite.

Normally, the noise created by a person approaching a snake is sufficient to frighten snakes away. However, extreme caution is necessary when exploring areas where snakes might be found, such as behind rocks, under bushes, or in holes, crevices, and abandoned pipes. The rules to follow if bitten by a snake are:

- Do no cut the bite area, since it will exacerbate the effect of the venom;
- Do not apply suction to the wound, since this is minimally effective in removing venom;
- Do not apply a tourniquet since venom is most dangerous when concentrated in a small area;
- Do not allow the victim to run for help, since this accelerates circulation;
- Do seek immediate medical attention;
- Do keep the victim calm and immobile; and
- Do have the victim hold the affected extremity lower that the body while waiting for medical assistance.

4.2.8 Heat Stress

Elevated temperatures may be a concern at this site. Heat stress monitoring and prevention procedures will be initiated. Heat stress reduction procedures shall consist of the following:

- Field personnel will be encouraged to drink fluids (chilled, potable water) frequently.

- When temperatures exceed 90 degrees Fahrenheit, all field personnel working outdoors will measure their heart rates no less than hourly. If the heart rate exceeds 110 beats per minute, the individual will rest for 10 minutes, drinking fluids throughout the rest period. If the heart rate has dropped below 110 beats per minute at the end of the rest period, the individual may return to work. If the heart rate exceeds 110 beats per minute, contact the onsite health and safety officer.

- Any personnel displaying signs or symptoms of heat stress will stop work and rest for at least 15 minutes. If symptoms persist beyond this rest period, the onsite health and safety officer will be contacted. Personnel displaying symptoms of heat stroke should immediately be taken to the nearest medical facility.

Symptoms of heat exhaustion included dizziness, light-headedness, nausea, slurred speech, fatigue, copious perspiration, cool clammy skin, and an increased resting heart rate. Symptoms of heat stroke included delirium, fainting, and hot, dry, flushed skin. Heat stroke is a life threatening condition, and immediate medical attention is required if any symptoms of heat stroke are observed.

4.3 Personal Protection for Site Work

All personnel entering the area of activity will be required to read and verify compliance with the provisions of this SSHSP. The level of protection expected for this site work will be modified Level D; disposable coverall (Tyvek), gloves, hard-hat, steel-toed boots, and safety glasses. Visitors are expected to comply with relevant OSHA regulations and provide their own protective equipment. Continuous monitoring will be conducted to verify the safety of all site personnel.

4.4 Emergency Contact Numbers

Table E-4-1 provides name and telephone numbers for emergency contact personnel. In the event of a medical emergency, personnel will take direction from the on site senior responsible individual and notify the appropriate emergency organization. In the event of a fire or spill, the same individual will notify the White Sands Missile Range Fire Department followed by the Emergency Operations Center. In the case of a spill of hazardous materials, the White Sands Missile Range representative will be responsible for notification of the appropriate local, state, and federal agencies.

Medical emergencies which occur at HWSF will be taken to the Post Clinic Emergency Room. From the HWSF, west on Nike Avenue to the Main Post and turn right onto Headquarters Road. Travel north on Headquarters Road to Rock Island Road, west on Rock Island Road to the Post Clinic Emergency Room (Figure E-4-1). The Post Clinic Emergency Room is approximately 2/3 mile (1.1 kilometers) west of Headquarters Road on the south side of Rock Island Road.

4.5 Smoking

Smoking within 50 feet of all project activities is prohibited. A smoking area will be located greater than 50 feet from the project site. All cigarette butts will be placed in a bucket filled with sand, which will be located at the smoking area.

5.0 SITE MONITORING

Hazardous materials may be encountered during drilling or monitor well installation. Site monitoring will be conducted to verify the safety of workers. Table 5-1 describes the site monitoring to be conducted.

Table E-4-1. Emergency Contact Telephone Numbers
(Fire, spill, and medical emergency numbers are bolded)

Organization	Contact	Telephone*
Fire Station #2 (Nike Avenue at LC-38)		Land Line on WSMR: 117 Land Line/Cell Phone: 678-9128 Off Range: 911
Fire Station #1 (Main Post)		Land Line on WSMR: 117 Land Line/Cell Phone: 678-1234 Off Range: 911
HELSTF Ambulance Service/Medical Aid Station (Building 26020)		Land Line/Cell Phone: 679- 5164 or 679-5167 Off Range: 911
Post Clinic Emergency Room (Building 530)		Land Line/Cell Phone: 678-2882
Memorial Medical Center Emergency Room (Las Cruces, NM)		Land Line/Cell Phone: 521-2286 or 911
Police		Land Line on WSMR: 118 Land Line/Cell Phone: 678-1234 Off Range: 911
Emergency Operations Center After Hours – Staff Duty Officer		678-3803
White Sands Missile Range Environment and Safety Directorate		678-2224
WS-ES-EC Technical Inspector (desk)	Robin Paul	678-8693
MEVATEC Corp. Office, Building 126, White Sands, NM, Front Desk	Sheila Sundeen	678-0263
MEVATEC Corp. Task Coordinator	Greg Watterson	678-1941
MEVATEC Corp. Task Manager	William Little	678-2853
MEVATEC Corp. Deputy Program Manager/ QA/QC Manager	Fred Bourger	678-3426
MEVATEC Corporation, Health and Safety Officer	Joel Giblin	678-0910
MEVATEC Corporation, Program Manager	Nicholas Barrón, Ph.D.	678-7907
NMED Hazardous Waste Bureau (Project Regulatory Agency)	Cheryl Frischkorn	827-1961

* - all phones numbers are within the 505 area code.

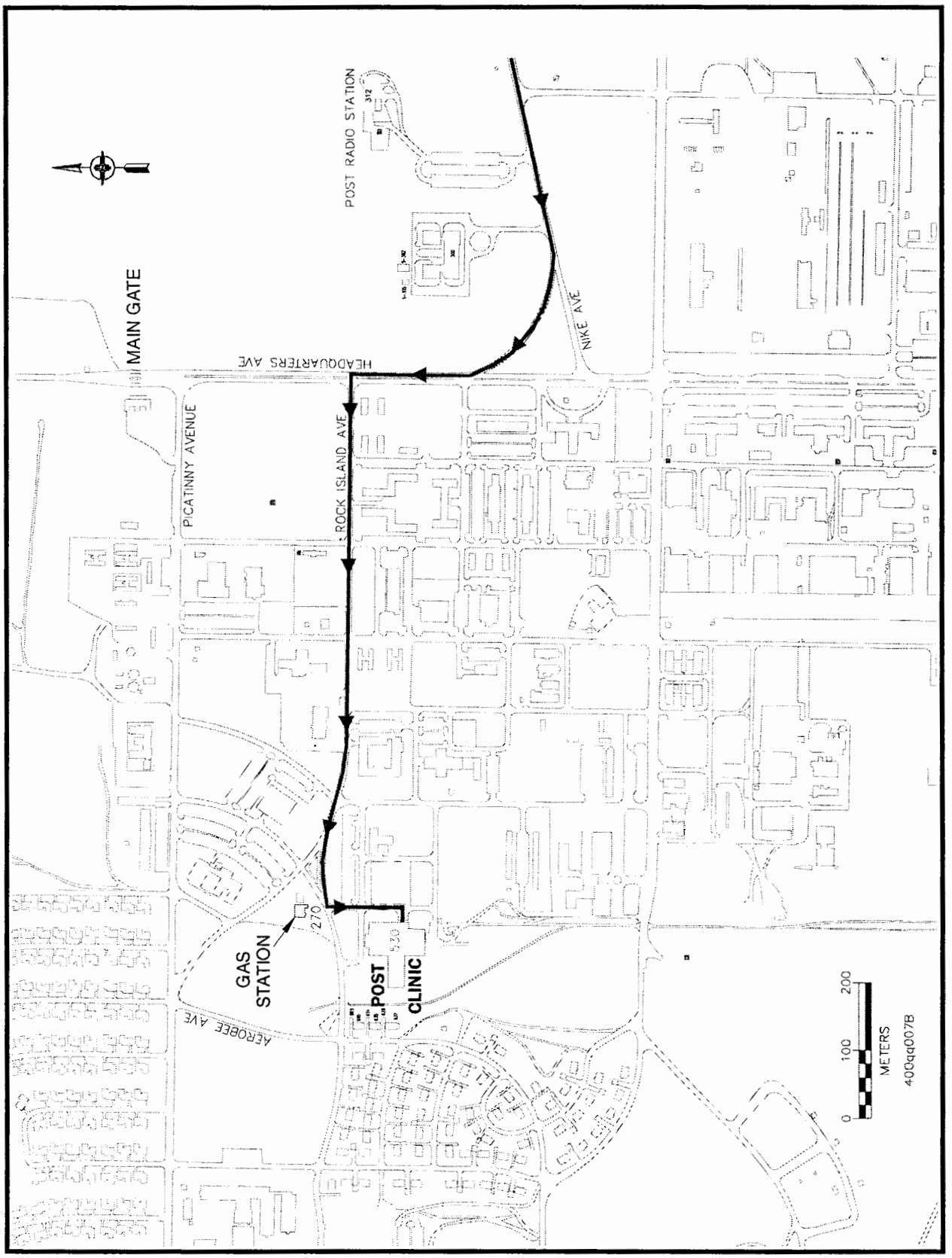

Figure E-4-1. Location of Post Clinic.

Table E-5-1. Site Monitoring Summary

Chemical / Physical Agent	Action Level	Monitoring Equipment	Sampling and Analysis	Frequency of Analysis
Volatile Organic Compounds	20 ppm[a] in the breathing zone	PID	Direct Reading	During drilling within the contaminated zone
Explosive Conditions	LEL: 1.4% UEL: 7.6%	Combustible Gas Meter	Direct Reading	During drilling within the contaminated zone
Noise Levels	85 dBA[b]	Sound Level Meter	Direct Reading	During all drilling activities

Notes a: ppm – parts per million
b: dBA – decibels, A-weighted

In the event that the action level is exceeded for volatile organic compounds or explosive conditions, the area will be immediately evacuated and the contaminant allowed to dissipate. MEVATEC will contact the WS-ES-EC Technical Inspector prior to commencing with work. Following instructions from WS-ES-EC, the field crews will don the appropriate clothing, respirator, and retest the site conditions. If levels continue, the MEVATEC Health and Safety representative will contact the WS-ES-EC Technical Inspector for further instructions. In the case of noise, exceedance of the action level will trigger the use of hearing protection.

6.0 ACCIDENT PREVENTION PLAN

Hazards Associated with Potential Exposure to Hazardous Chemicals or Materials:

- Soil gas survey
- Drill and sample soil borings
- Purge and sample of four groundwater wells
- Investigation Derived Waste Management
- Site Restoration

Actions to be Taken to Control Hazards:

_X_ Minimize free liquids to reduce airborne vapor concentrations.
____ Tops shall be securely attached to chemical containers when not in use to minimize airborne vapor concentrations.
____ Utilize wet methods to control airborne dusts emissions.
_X_ Delineate and control access into the Exclusion Zone(s) and Contamination Reduction Zone(s).
_X_ Utilize Chemical Protective Clothing and Equipment
_X_ Decontaminate or remove outer protective clothing in the Contamination Reduction Zone, prior to entering the Support Zone from the Exclusion Zone.
_X_ Decontaminate all equipment leaving the Exclusion Zone in the Contamination Reduction Zone, prior to entering the Support Zone.
_X_ Wash hands and face prior to drinking/smoking breaks.
____ Personnel working in the Exclusion Zone will be required to shower out at the end of the workday, prior to leaving the work site to go home.

Fire Hazards Associated with Handling or Working near Flammable or Combustible Materials:

Operations and/or Tasks Associated with the Above-Referenced Hazards:

- Soil gas survey
- Drill and sample soil borings
- Purge and sample of four groundwater wells
- Investigation Derived Waste Management
- Site Restoration

Actions to be Taken to Control Hazards:

_X_ Monitor work environment as necessary with a combustible gas meter to determine the percent LEL concentration of combustible gases and vapors.
_X_ Should concentrations exceed 10 percent LEL in a work area, operations within the area will cease immediately, and all potential sources of ignition removed from the area.
____ All "Hot Work" performed in hazardous locations shall require the issuance of a Hot Work Permit issued by White Sands Missile Range safety office. Combustible or flammable materials shall be purged of combustible gasses and vapors (less than 10 percent LEL) prior to being cut.
_X_ Smoking shall not be permitted on-site, except in designated areas.
_X_ All containers of flammable or combustible materials must be properly labeled to indicate its contents and appropriate fire hazard.

Slip, Trip, Fall Hazards:

Operations and/or Tasks Associated with the Above-Referenced Hazards:

- Soil gas survey
- Drill and sample soil borings
- Purge and sample of four groundwater wells
- Investigation Derived Waste Management
- Site Restoration

Actions to be Taken to Control Hazards:

_X_ Workers shall ensure that walking/working surfaces are kept free of potential slip, trip, fall hazards.
_X_ Whenever possible, avoid routing cords, ropes, hoses, etc. across isles and walking paths.
_X_ Flag and/or cover inconspicuous holes to protect against accidental trips and falls.
____ Delineate and/or guard open excavations to protect against falls.

Hazards Associated with Elevated Work (i.e., All Work Performed Greater Than Four Feet Above the Ground or Adjacent Work Area)

Operations and/or Tasks Associated with the Above-Referenced Hazards:

- Drill and sample soil borings

Actions to be Taken to Control Hazards:

____ Ladders will be ascended and descended facing the ladder with both hands free.
_X_ Tools, supplies, and equipment will be raised and lowered with a rope, and not carried while traversing a ladder.
_X_ All work performed above the ground shall be from a secure platform.
_X_ If work is being performed from a location more than four feet above the floor or ground, workers will be protected from falling by a class three (Parachute-type) body harness and lanyard, or by a standard guardrail.
_X_ Scaffolds will be ascended and descended by a secure ladder.
_X_ All scaffolds will be inspected at the beginning of such work shift.

Hazards Associated with Operations of Heavy Equipment or Motor Vehicles

Operations and/or Tasks Associated with the Above-Referenced Hazards:
- Soil gas survey
- Drill and sample soil borings
- Purge and sample of four groundwater wells
- Investigation Derived Waste Management
- Site Restoration

Actions to be Taken to Control Hazards:

_X_ Personnel operating heavy equipment or vehicles shall maintain a constant awareness of personnel and stationary objects in the areas adjacent to its operation.
_X_ Spotters shall be utilized to assist operators in manipulating vehicles and equipment into tight or confined areas.
_X_ Equipment operators shall inspect their equipment prior to and during each use, to ensure it is working properly, and that all safety devices are functioning as they should.
_X_ Ensure operators are adequately trained and/or licensed as necessary to operate their equipment or motor vehicles.
_X_ All moving heavy equipment must have properly functioning backup alarms.
_X_ Motor vehicle operators are responsible for conducting a pre-trip vehicle safety inspection prior to its use. No motor vehicle with any known mechanical defect which endangers the safety of the driver or passengers shall be used.

Hazards Associated with Working in Hot Environments

Operations and/or Tasks Associated with the Above-Referenced Hazards:

- Soil gas survey
- Drill and sample soil borings
- Purge and sample of four groundwater wells
- Investigation Derived Waste Management
- Site Restoration

Actions to be taken to control heat stress:

_X_ Drink plenty of fluids, preferably water before, during and after each activity
_X_ Acclimate to site conditions by slowly increasing work loads
_X_ Use cooling devices to aid natural body ventilation
_X_ Conduct field activities in early morning or evening
_X_ Use shelter to protect against heat stress
_X_ Rotate shifts of workers

Hazards Associated with Working in Cold Environments

Operations and/or Tasks Associated with the Above-Referenced Hazards:

- Soil gas survey
- Drill and sample soil borings
- Purge and sample of four groundwater wells
- Investigation Derived Waste Management
- Site Restoration

Actions to be Taken to Control Hazards:

_X_ Adequate protective clothing shall be worn at all times
_X_ Provide shelter from wind and cold temperatures
_X_ Do not remove chemical-protective equipment unless sheltered from wind and cold temperatures.
_X_ Field activities shall be curtailed if equivalent chill temperature is below zero degrees F.

Hazards Associated with Insects, Snakes or Wild Animals

Operations and/or Tasks Associated with the Above-Referenced Hazards:

- Soil gas survey
- Drill and sample soil borings
- Purge and sample of four groundwater wells
- Investigation Derived Waste Management
- Site Restoration

Actions to be Taken to Control Hazards:

_X_ Ensure that personnel are aware of such hazards, and encourage them to be constantly on the lookout.
_X_ Maintain a supply of insecticide sprays to be used as necessary to kill flying or crawling insects.
____ Utilize heavy equipment to clear areas where high grass and brush have grown, prior to accessing these areas on foot.

Hazards Associated with Falling Objects

Operations and/or Tasks Associated with the Above-Referenced Hazards

- Soil gas survey
- Drill and sample soil borings
- Purge and sample of four groundwater wells
- Investigation Derived Waste Management
- Site Restoration

Actions to be Taken to Control Hazards:

_X_ Require that hard hats be worn at all times by on-site personnel except in break areas.
_X_ Whenever possible, personnel will avoid walking or working beneath areas where overhead work is being performed.
____ All overhead work platforms will be equipped with standard toe board to reduce the potential of objects falling from them.

Hazards Associated with Excavating and/or Trenching

Operations and/or Tasks Associated with the Above-Referenced Hazards:

- None

Actions to be Taken to Control Hazards

____ Excavating equipment shall possess back-up alarms
____ Operator shall be trained and experienced in the use of equipment
____ Excavation or trench shall be barricaded to avoid accidental entry

Hazards Associated with Working Over or Near Water

Operations and/or Tasks Associated with the Above-Referenced Hazards:

- None

Actions to be Taken to Control Hazards:

____ Employees working over or near water, where the danger of drowning exists, shall be provided with, and required to wear a US Coast Guard-Approved life jacket or buoyant work vest.
____ Ring buoys with at least 90 feet of line shall be provided and readily available for emergency rescue operations.
____ At least one life saving skiff shall be available where workers working over or adjacent to water.

Hazards Associated with Poison Ivy, Oak, Sumac, etc.

Operations and/or Tasks Associated with the Above-Referenced Hazards:

- . None

Actions to be Taken to Control Hazards:

____ If available, heavy equipment should be used to clear heavily weeded work areas prior to accessing on foot.
____ Train on-site personnel in identifying these plants.
____ Where such hazards exist, personnel working in the area shall wear adequate protective clothing to avoid potential contacts with these plants, especially those personnel who are known to be allergic.

Hazards Associated with Electricity

Operations and/or Tasks Associated with the Above-Referenced Hazards:

- Soil gas survey
- Drill and sample soil borings
- Purge and sample of four groundwater wells
- Investigation Derived Waste Management
- Site Restoration

_X_ Ground Fault Circuit Interrupters (GFCIs) shall be used whenever possible, to protect workers from shock or electrocution while working with electrical equipment.
_X_ Repair or remove from service all damaged electric cords.
_X_ Route extension cords in a manner and/or location which would prevent potential damage to the cord.
_X_ All electrically powered hand tools shall be of the grounded, or double-insulated type.

Hazards Associated with Confined Space Entry

Operations and/or Tasks Associated with the Above-Referenced Hazards:

- None

____ All entries into confined spaces shall be in accordance with ITC Pro 9532.B -"Confined Spaces Industrial," and Chapter 4 of this site health and safety plan.
____ Explosion proof lighting shall be utilized as necessary to illuminate confined spaces.
____ Confined space entry shall be avoided whenever possible.

Hazards Associated with Materials Handling

Operations and/or Tasks Associated with the Above-Referenced Hazards:

- Soil gas survey
- Drill and sample soil borings
- Purge and sample of four groundwater wells
- Investigation Derived Waste Management

Actions to be Taken to Control Hazards:

_X_ Mechanical equipment (i.e., dolly, hoist, fork lift) shall be utilized whenever possible to minimize manual labor.
_X_ Size up the job before lifting and get help if needed. The maximum weight to be manually lifted by MEVATEC and/or subcontractor personnel is 60 pounds (27.2 kilograms).
_X_ Personnel will be reminded during daily safety meeting to utilize proper lifting methods to avoid muscle or back strains.

Hazards Associated with Limited Communication Due to Location, Distance or Noise

Operations and/or Tasks Associated with the Above-Referenced Hazards:

- Soil gas survey
- Drill and sample soil borings
- Purge and sample of four groundwater wells
- Investigation Derived Waste Management
- Site Restoration

Actions to be Taken to Control Hazards:

_X_ Where direct verbal communication is limited, portable 2-way radios, and/or hand signals shall be utilized to facilitate communication among workers.
_X_ Where work sites are in remote locations without access to nearby existing telephones, a cellular telephone (if service is available) or two-way radios shall be maintained on-site for use in the event of an emergency.

Hazards Associated with Poor or Inadequate Lighting

Operations and/or Tasks Associated with the Above-Referenced Hazards:

- None - All work activities will be conducted during daylight hours

____ If practical and feasible, all outdoor field work shall be performed during daylight hours.
____ In areas where natural or existing lighting is not sufficient to perform the required work safely, auxiliary lighting shall be installed.
____ Only explosion proof auxiliary lighting is permitted for confined spaces.

Hazards Associated with Noise

Operations and/or Tasks Associated with the Above-Referenced Hazards:

- Soil gas survey
- Completion of soil borings
- Development and sampling of four groundwater wells
- Investigation Derived Waste Management
- Site Restoration

_X_ Appropriate hearing protection shall be provided to and worn by personnel working in areas where noise levels are known or suspected to exceed 85 dBA.

_X_ Inspect noise control devices (i.e., mufflers) on equipment to ensure they are working properly.

_X_ Periodically inspect pressurized systems (i.e., compressed air or steam) for leaks which create potential noise hazards, and if any are found, repair as soon as possible.

_X_ Whenever possible, start noise equipment in a remote area to reduce the potential for personnel exposure to noise, and to facilitate verbal communication among personnel.

Hazards Associated with Underground or Overhead Utilities

Operations and/or Tasks Associated with the Above-Referenced Hazards:

- Soil gas survey
- Drill and sample soil borings
- Site Restoration

Actions to be Taken to Control Hazards:

_X_ White Sands Missile Range National Range Support shall be contacted to establish the location of underground utilities and communication lines through the area of anticipated excavation.

_X_ When excavating with heavy equipment near underground utilities, personnel on the ground will assist in probing to find the exact location of lines, and will use hand shovels to carefully remove the soil immediately adjacent to the lines.

_X_ When operating machinery near overhead electrical distribution and transmission lines, refer to 29 CFR 1926.550 (a)(15)(I)-(vii) for minimum clearances, and safe work practices.

Hazards Associated with Unauthorized Personnel On-Site and in Controlled Work Zones

Operations and/or Tasks Associated with the Above-Referenced Hazards:

- Soil gas survey
- Drill and sample soil borings
- Purge and sample of four groundwater wells
- Investigation Derived Waste Management
- Site Restoration

Actions to be Taken to Control Hazards:

____ Install temporary fencing, traffic cones, or other appropriate barriers to delineate the work site, and to deter unauthorized personnel from entering the work site. If necessary, post security guards at each point of access into the work site.
____ Maintain a visitors sign in/out log.
____ Post warning signs "Authorized Personnel Only" at all entrances to the work site.
____ Utilize badge identification system.
_X_ Delineate controlled work zones with temporary fencing and/or caution tape.
____ Post hazard warning sign at the entrances into controlled work zones.
____ Utilize security guards to provide site security during off hours.

Hazards Associated with Traffic Through or Near the Work Site

Operations and/or Tasks Associated with the Above-Referenced Hazards:

- None - Site is located within a controlled, fenced area.

Actions to be Taken to Control Hazards:

____ Personnel working in areas where traffic hazards exist shall wear brightly colored orange traffic vest.
____ Flagmen will be utilized as necessary to direct traffic through or around the work site.
____ Barricades and traffic cones and signs shall be utilized as necessary to aid in directing traffic through or around the work site.

Hazards Associated with Unexploded Ordnance

Operations and/or Tasks Associated with the Above-Referenced Hazards:

- Soil gas survey
- Drill and sample soil borings
- Purge and sample of four groundwater wells
- Site Restoration

_X_ All field personnel will review the UXO Orientation Video prior to field activities.
_X_ All field personnel will be required to sign the UXO Orientation sheet following review of orientation video.
_X_ All field personnel will receive a UXO Range Hazards Card and will be required to keep the card on-hand at all times.
_X_ If UXO is identified, all field personnel will be verbally notified to follow directions listed on UXO Range Hazards Card.

7.0 COMPLIANCE AGREEMENT

This SSHSP applies to all MEVATEC personnel and their contractors performing the aforementioned field activities at the HWSF Evaporation Tank. I have read this SSHSP and hereby agree to abide by its provisions and to aid the Health and Safety Officer and his

representative in its implementation. I understand that it is in my best interest to see that sight operations are conducted in the safest manner possible; therefore, I will be alert to site health and safety conditions at all times.

Name	Date
Name	Date
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Name	Date
Name	Date
Name	Date
Name	Date

8.0 DAILY HEALTH AND SAFETY BRIEFING COMPLIANCE AGREEMENT

Topics covered during today's (.) health and safety briefing:

I have hereby agree to abide by its provisions of the SSHSP, issues discussed in today's health and safety briefing, and to aid the Site Health and Safety Officer or his representative in its implementation. I understand that it is in my best interest to see that sight operations are conducted in the safest manner possible; therefore, I will be alert to site health and safety conditions at all times.

Name	Name
Name	Name
Name	Name
Name	Name
Name	Name

APPENDIX F

QUALITY ASSURANCE / QUALITY CONTROL (QA/QC) PLAN

APPENDIX F
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F.1 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) PLAN

This Quality Assurance / Quality Control (QA/QC) Plan was prepared to ensure realization of the project objective and to be responsive to all applicable federal, state, and local requirements. The objectives of the QA/QC plan are to control and characterize any errors associated with data collection. QA activities, such as the use of standard procedures for locating and collecting samples, are intended to limit the introduction of error. QC activities, such as the collection of duplicate samples and the inclusion of blanks in sample sets, are intended to provide the information necessary to characterize any errors in the data. Other QC activities, such as planning the QC program and auditing ongoing and completed tasks, ensure that specified procedures are followed and that the QC information needed for characterizing error is obtained (EPA, 1984).

F.2 CONTROL ACTIVITIES

The QA/QC Plan control activities shall be as follows:

- Field inspections are to be performed by the Contractor's Project Engineer, QC Inspectors, or Field Engineers, depending on the activity. The inspectors are primarily visual examinations, but may include measurements of materials and equipment used, techniques employed, and the final products. The purpose of these inspections is to verify that a specific guideline, specification, or procedure for the activity is successfully completed.

- Field testing will be performed on site by QC Inspectors according to specified procedures. Field tests may be done on samples or in situ portions of the clean closed site to assess whether project performance meets project requirements.

- Laboratory analyses will be performed by the A2LA and/or COE certified laboratories on samples of the decontamination rinsate. The purpose of the laboratory tests is to characterize samples to establish the proper disposal method.

- Checklist required for critical inspections. These checklists are to be completed during the inspection to document audit results.

- Calibration of all instruments used to perform field testing, and laboratory testing.

F.3 SPECIFIC INSPECTIONS AND TESTS

The inspections and tests which are necessary to control, verify, and document proper closure and described in this section.

F.3.1 Removal of the Concrete Evaporation Tank

The site of the concrete Evaporation Tank will be photographed as a QA/QC function to verify that the concrete evaporation tank was removed. The photograph will be included in the final closure report to NMED. The Resident Engineer will review soil and decontamination rinsate sampling and analytical data to verify attainment of closure performance standards.

F.3.2 Placement of Soil Backfill

Following removal of the former evaporation tank in 1994, the site was regraded to its current condition. A discussion of the evaporation tank removal will be included in the final Closure Report.

F.3.3 Verification of Decontamination

The Contractor's Project Engineer, QC Inspector, and Field Engineer shall review the sampling and analytical data from all sampling events. The procedure for determining effective decontamination of equipment will be established using the following procedures:

A. Two grab samples will be collected from the potable water supply. These samples will be analyzed for total TCE using Method 8260B of Test Methods for Evaluating Solid Wastes - Physical /Chemical Methods, SW-846, 3rd Edition. The mean plus two standard deviations TCE concentrations detected in the samples will become the performance standard for evaluating all rinsate samples. All rinsate data will be compared to the calculated rinsate performance standard. Analytical results falling within the mean plus two standard deviations will be defined as effectively decontaminated and clean.

B. Samples will be collected from the composited final rinse of all decontamination activities. For each decontamination event, a composite sample will be collected with a pre-cleaned grab sampler, and the sample shall be poured into the sample containers. For decontamination that occurs in place, a pre-cleaned stainless steel bowl will be placed under the equipment for collection of the final rinse. A composite rinsate sample will be collected with a precleaned grab sampler, and the sample poured into the sample container.

The field storage and shipping procedures for all decontamination rinsate samples shall be as follows:

- Collect a grab sample with a pre-cleaned grab bottle from the composite rinsate of the final rinse from the decontaminated equipment.
- Transfer sample to appropriate containers.
- Complete labels, custody seal, and prepare chain of custody forms. Place custody seal on container. Attach chain of custody form to inside top of cooler (Figure F-1).
- Package samples in durable coolers filled with ice to maintain a temperature of approximately 4 degrees C. Place custody seals on the front and back edges of the cooler lid.
- Filled coolers will be transported by an overnight courier to the analytical laboratory.
- Rinsate samples collected from the decontamination procedures shall be containerized and analyzed for TCE as specified using Method 8260 of "Test Methods for Evaluating Solid Wastes - Physical /Chemical Methods, SW-846, 3rd Edition."

F.4 LABORATORY REQUIREMENTS

All samples will be analyzed by an A2LA and/or COE laboratory certified to perform hazardous waste analyses. Before analytical work begins, the laboratory shall submit its QA plan to the

Task Manager and the Quality Assurance Officer for approval. At a minimum, the plan shall document the following items: (1) sample custody and management practices; (2) sample preparation and analytical procedures that will be used for this project; (3) instrument maintenance and proper calibration procedures; and (4) internal QA/QC measures, including the use of method blanks.

F.4.1 Sample Identification and Labeling

All samples shall have legible labels affixed that contain the following information: (1) a unique identification number; (2) name of collector; (3) date and time of collection, (4) sample location; (5) sample preservative if used; and (6) analysis requested.

F.4.2 Chain-of-Custody Record

The chain-of-custody program, which allows the possession and handling of individual samples to be tracked from the time of sample collection to laboratory analysis, is, provided by completing and attaching chain-of-custody forms to all samples or groups of samples.

F.4.3 Sample Collection Log

A sample collection log or field logbook will be maintained by the Field Supervisor. This logbook shall contain the following information: (1)sample location; (2) sample identification number; (3) sample withdrawal procedure and equipment; (4) date and time of collection; (5) preservatives used; (6) type of container used; (7) field analysis method, date, and time; (8) field observations during sample collection; and (9) name of collector.

MEVATEC CORPORATION
P.O. Box 399
Bldg. 126
WSMR, NM 88002
(505) 678-0263

CHAIN OF CUSTODY RECORD

PAGE_____OF_____

PROJECT NO.	PROJECT NAME
SAMPLER'S SIGNATURE:	

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	ANALYSIS REQUESTED										REMARKS

PROJECT INFORMATION	SAMPLES RECEIVED		1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER	TOTAL NO. OF CONTAINERS		(PRINTED NAME)	(PRINTED NAME)	(PRINTED NAME)
SHIPPING ID. NO.	CHAIN OF CUSTODY SEALS		RECEIVED BY:	RECEIVED BY:	(COMPANY)
	GOOD CONDITION/CHILLED		(TIME / DATE)	(TIME / DATE)	(TIME / DATE)
VIA:	CONFORMS TO RECORD		SPECIAL INSTRUCTIONS / COMMENTS:		

PLEASE USE BALL POINT PEN

DISTRIBUTION: WHITE - PROJECT FILES; YELLOW - LAB; PINK - FIELD COPY

Figure F-1. Sample Chain-of-Custody.

APPENDIX E

Signed Utility Clearance Form

Date: 12/5/01

MEMORANDUM FOR UTILITIES SERVICES SECTIONS

SUBJECT: UTILITY CLEARANCES Site Location: HWSF (Bldg 22895)

1. Request that the individuals conducting the identification of existing utility lines at the construction site acknowledge identification of the utility by signing and dating by appropriate utility section listed below.

GAS WO# ES5MI4 (x-2397)		Date: 12-6-01
WATER WO# ES5MH9 (x-1917)	(Lopez)	Date: 12-6-01
SEWER WO# ES5MI0 (x-1917)	(Lopez)	Date: 12-6-01
ELECTRICAL DEPT WO# ES5MI1 (x-2851)		Date: 12/5/01
COMMO SECTION (x-2162)		Date: 12-6-01
EOD SECTION	Not required	Date:
FIRE DEPARTMENT		Date: 12/6/01

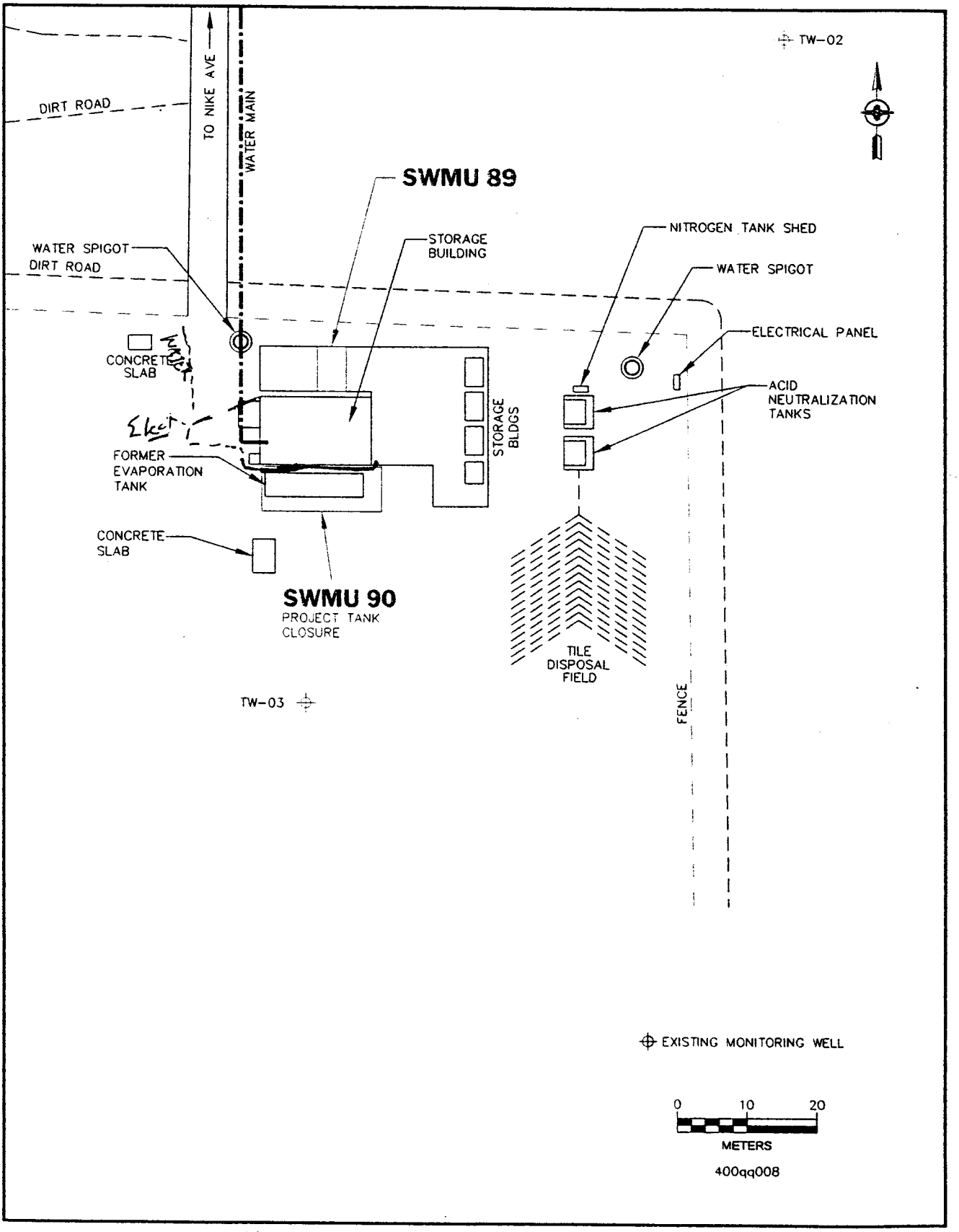
2. Above clearance does not relieve the contractor of responsibility to use proper excavation methods and due care while working around the approximate location of utility services.

3. A site map identifying the location of the proposed drilling activities is attached.

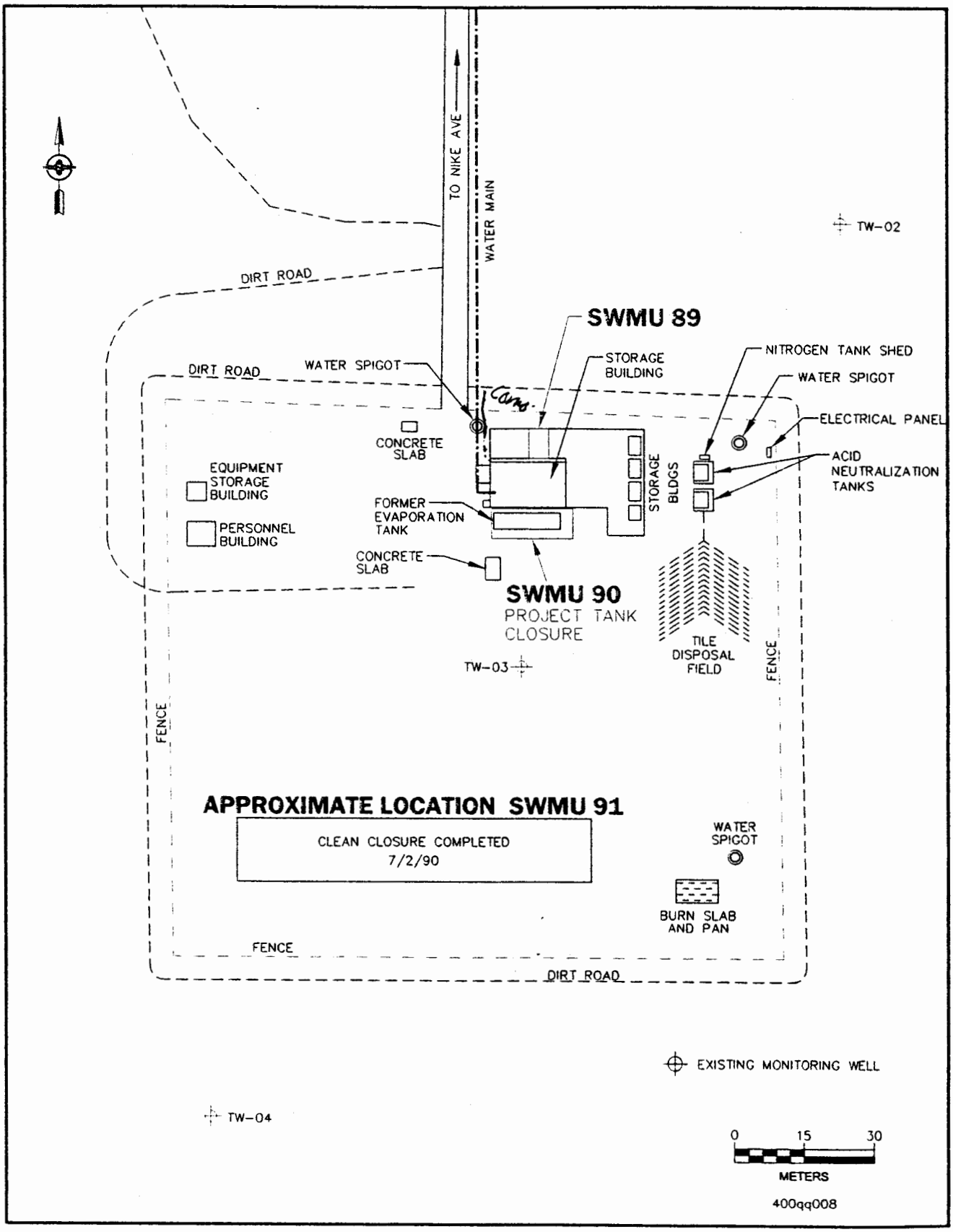
Requested by:

Greg Watterson E.I.
MEVATEC Corporation
(678-1941)

Robin Paul
WS-ES-EC Technical Inspector
(678-8693)



Hazardous waste Storage Facility site Map
Utility Clearance



Hazardous waste Storage Facility site Map
Utility Clearance

APPENDIX F

Copies of field logs

TOC

001

Description	Pg #
Utility Clearance (12-5 & 12-6 01)	3-4
Prop site for SG Survey (12-11-01)	5
Soil Gas Survey (12-12 → 12-13-01)	6-13
GW Sampling (12-12 → 12-14-01)	6-19
Soil Sampling (12-17 → 12-19-01)	20-31
Drum Disposal	33
Soil Cuttings Disposal	34

12-5-01

0930 Luis Baca & Gray Watkins obtain electrical utility clearance. Line marked & flagged.

1030 Return to office.

Note: Larry Kinnes performed THE survey @ HWSF today. Will give copy of report to me in 2 weeks.

GTW

GWatkins

304 12-6-01

0830 Luis Baca obtains remaining clearances:

Gas, Water, Sewer & Comms

1400 Grey Waterson obtains Fire Dept clearance.

Clearance form submitted to client (WS-ES-EC) for approval.

12-11-01 0830

0830 Luis Baca + Grey Waterson arrive @ site.

Stake site for soil gas survey

1000 Return to office

1500 Magna Care personnel arrive for badging. Obtain badges & they leave site for day.

Cedric Cario
Scott

0930 Magna Core + Centrum personnel arrive @ MEVATEC office for H+S Meeting + UXO Briefing

Obtain badge for Centrum employee (Mark Horan).

0850 Arrive @ HWSF + setup geo-probe @ SG-01. Mobile lab calibrated + ready to work.

1100 Gabe Garcia arrives to collect GW samples
Setup @ TW-03

1200-1230 Allen Tyree arrives to perform storm water survey
Takes driller into ~~town~~ Post for lunch.

1230-1330 Magna Core on lunch break

1342 Collect groundwater sample from TW-03
Prime Sample ID:
HWSF-TW03-1201
QA Sample ID:
HWSF-TW03-1201-QA
All analyzed for: VOC, TDS, pH, + Spec. Cond.

Date of Collection: 12/12/01
Time of Collection: 1342
Sample #: Prime: HWSF-TW-03-1201
QA: HWSF-TW03-1201-QA
+ Trip blanks

Well TD: 290.00 (1215 hrs)
Ø well: 4"
Depth of water column: 54.21 ft
Well volume: 35.39 gal
5 well volumes: 176.99 gal
Total purged: 180 gal
Pump: Stage II Grundfos Hyd. Pump
Water level: 235.75' BTOC (1213 hrs)

12/12/01

TW03 Parameters

Time	Vol	pH	x1000 Cond	Temp	Visual
1235	Initial	6.52	Off Scale	60.2	Clear
1255	50 gal	6.77	"	68.1	"
1305	100 gal	6.77	"	67.9	"
1330	150 gal	6.73	"	65.2	"
1340	180 gal	6.84	"	63.8	"

All jars pre-preserved by Labs as necessary

Hydac calibrated @ 1200 by Gabe Garcia

Samplers: Greg Watterson & Gabe Garcia

1442 Start pumping TW-01

Water level: 230.80 ft bTOC (1430 hrs)
TD: 285.80' bTOC (1432 hrs)
Well dia: 4" Ø
Depth of WC: 54.12 ft
Volume of WC: 35.39 gal
5 well volumes: 176.96 gal

12/12/01

TW01 Parameters

Time	Vol	pH	x1000 Cond	Temp	Visual
1442	Initial	6.88	18.58	56.6	clear
1454	50	6.74	OFF	63.2	cloudy
1509	100	6.72	↓	60.2	clear
1522	150	6.73	↓	60.9	clear
1530	180	6.79	↓	62.8	clear

1532 Collect sample from TW01
Sample ID: HWSF-TW01-1201

Samplers: Greg Watterson & Gabe Garcia

1600 Gabe Garcia leaves site for office. PDP cooler to be FedEx'd tomorrow. Assigned cooler to be picked up by lab courier on Thurs.

1750 Finish soil gas survey for today. Signed & received copy of COC

from Centrum. Borings completed today include: SG-01, -07, -13, -19, -06, -08, -09, -10, -11, -12, -14, -15, & -16. Anticipate finishing tomorrow.

Weather for 12/12/01
≈ 40°F, very windy (>30 mph gusts)
cloudy

JW Walter

0720 Arrive @ site w/ Magna Core & Centrum.

Note: No appreciable detections in the SG samples yesterday

0820 Rig up @ 1st SG location of the day

0852 Take Gaeia calibrate Hydac for days use.

weather for 12/13/01
clear 30s-40s, slight breeze

Note: Air sampling purging @ 0.2L/min for 3 min for each sample collection

Well Sampling Info for TW04

0919 Start purging TW01
DTGW - 234.15' bTOC
TD - 402.00' bTOC

012 12/13/01

JC - 172.85'
1 well volume - 253.91 gal
5 well volumes - 1269.55 gal
6" Ø well

TW04 Piezometer

Time	Vol	pH	Cond	Temp
0919	~~200~~ Initial	7.22	off scale	52.3
1020	~~400~~ 200	6.59	↓	57.9
1122	~~650~~ 450	7.09	↓	59.1
1222	~~800~~ 600	6.98	↓	65.5
1325	~~1000~~ 800	7.03	↓	66.2
1440	~~1050~~ 1000	7.07	↓	66.3
1455	1050	7.04	↓	64.8
1514	1100	7.04	↓	63.1
1515	Sample time			

Sample ID: HWSF-TW04-12001
Run: Vol, pH, Cond, TDS
Decon equipment, collect equipment blank using deionized water
Collect sample of tap water from decon barrel for analysis
Equip blank ID: HWSF-TW04-12001-RB
Tap water ID: HWSF-Tapwater-12001

12/13/01 013

1300 (GPW) George Esquivel, Luis Ben, Margaret Dubbin & Karen Costa arrive on site. Greg shows Margaret & Karen Soil Gas Survey Operations.

~~1400~~ (GPW)

1430 George, Luis, Karen, & Margaret leave the site for office

Note: Cannot get geoprobe to setup @ SG-27 & SG-28 (between ramp & building). Move 27 & 28 to west side of building.

1600 Magna Lab completes sampling & leaves site

1620 Centrum leaves site will fax results from last 3 samples on Friday

End of day

014 12/14/01

0945 Gray Watterson & Gabe Garcia arrive onsite to sample TW02.

DTGW - 237.45' bTOC (1010 hrs)
TD - 285.0' bTOC
4" Ø well
Water column - 47.55'
1 well volume - 31.05 gal
5 well volumes - 155.25 gal

TW Ø2 Parameters

Time	Ø1	pH	Cond	Temp
1030	Initial	6.68	OFF	64.4
1045	50	6.84	Scale	66.2
1104	100	6.88	↓	64.9
1120	155	6.84		68.3
1122	Sample Time			

Sample ID: ~~HWOF~~-TW Ø2-12Ø1
Final decon on all equip.

12/14/01 015

Drum Inventory

TW Ø1	4 drums
TW Ø2	4 drums
TW Ø3	4 drums
TW Ø4	23 drums
Geoprobe	1 30 gal drum (≈ 1/4 full)
Empty	5 drums

~~Total~~ 6m

1030-1130 Gray W logs locations of SG samples (see next page). Places SB stakes & removes SG stakes.

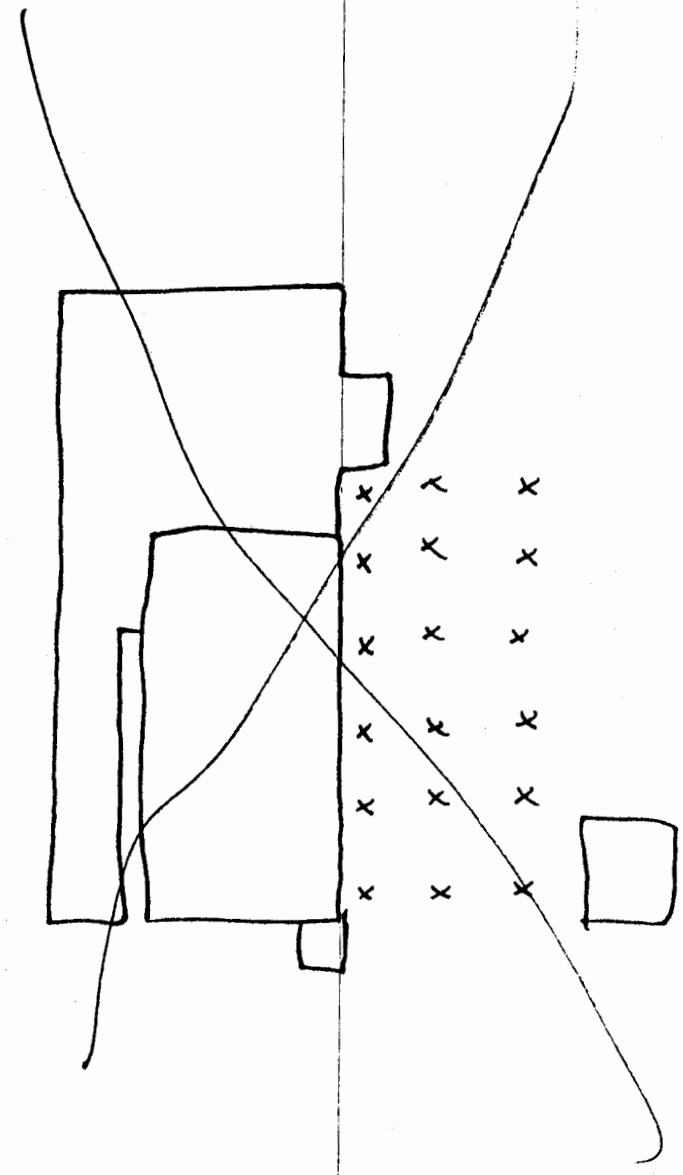
1200 Gray & Gabe return to office

Samples from 12/13 + 12/14 packed in cooler + FedEx'd to PDP.

12/14/01

12/14/01

017



Conc. Slab
Bldg Sample
Bldg Sample
12/14/01
12/14/01

12/17/01

0815 Robert Kistler arrive onsite for H&S Briefing

0830 - 0930 Badging + Vehicle passes

1130 Rig up @ SB09

1130 - 1330 Collect soil + lithologic samples from SB09

1400 - 1405 Drillers on lunch

1423 rig up @ SB10

1423 - 1530 collect soil samples from SB10

1600 Pressure washer malfunctions. Robert Kistler goes back to El Paso to get new washer. Meet tomorrow @ 0930.

1630 Geoprobe crew return to office + pack vehicles.

Samples Collected on 12-17-01

Time	Boring #	Depth	Analysis
1140	SB09	1.5-2.0	8260
1150	SB09	3.5-4.0	
1155		5.5-6.0	
1220		11.5-12.0	
1300		19.5-20.0	
1320		24.5-25.0	
1425	SB10	1.5-2.0	
1437		3.5-4.0	
1443		5.5-6.0	
1450		11.0-12.0	TQA
1504		19.5-20.0	
1502		24.5-25.0	

0730 George + Greg pack coolers for ADP to be FedEx'd today. Included trip blanks + temperature blank.

Note: Manny from Roba called + said he will not arrive until 0815 @ site.

0815 Greg + George arrive onsite

0830 Roba arrives. Problem w/ new pressure washer. Working on problem.

1050 Decon equipment

1055 Rig up @ SB05

1055 - 1202 Collect soil samples from SB05

1215 Rig up @ SB06

1215 - 1321 Collect soil samples from SB06
Note HOC @ ≈10' bgs

1345 Rig up @ SB07

1345 - 1457 Collect soil samples from SB07

Note GRW

1515 Decon equipment

1557 Rig up @ SB08

1557 - 1633 Collect soil samples from SB08

Note: Rinsate collected on equipment blank from Split Spoons @ 1330. Additionally a sample of the tap water (1st rinse) was collected for analysis. All run for 8260.
Equip Blank ID: HCWSF-SB06-EB
Tap Water ID: HCWSF-SB06-TapWater

1740 leave site
1800 Arrive SSFW + pack

12-18-01

PDP cooler for shipping tomorrow
Assign samples in refrigerator until shipment

12-18-01

Samples Collected on 12-18

Time	Boring #	Depth	Analysis
1102	SB05	1.5-2.0	8260
1110		3.5-4.0	
1114		5.5-6.0	
1124		11.5-12.0	
1145		19.5-20.0	
1202		24.5-25.0	
1225	SB06	1.5-2.0	
1231		3.0-4.0 +QA	
1236		5.5-6.0	
1250		11.5-12.0	
1311		19.5-20.0	
1321		24.5-25.0	
1330	[redacted]	Equipment Blank	
1330		Trip Water	
0830	X	Trip Blank +QA	
0830	X	Temp Blank	Temp
1351	SB07	1.5-2.0	8260
1358		3.5-4.0	
1403		5.5-6.0	
1414		11.5-12.0	
1442		19.5-20.0	
1457		24.0-25.0 +QA	

12-18-01

Samples Collected on 12-18

Time	Boring #	Depth	Analysis
1601	SB~~08~~	1.5'-2.0	8260
1610		3.5'-4.0	
1614		5.5-6.0	
1623		11.5'-12.0	
1645		18.5'-20.0	
1655		24.5'-25.0	

12-19-01

0700 George Esquivel & Greg Wetherson arrive onsite
0730 Robert Kistner arrives
0744-0845 Collect soil samples from SB12

0905-1055 Collect soil samples from SB11
Decon equipment
1105-1206 Collect soil samples from SB04

1220-1331 Collect soil samples from SB03

1400-1458 Collect soil samples from SB02
Decon equipment
1520-1635 Collect soil samples from SB01
Decon equipment

Note: Jack Giblin (HAS officer) onsite from 1430-1545.

027 12-19-01

Joel had no H&S findings

1740 Leave site.

Waste Remaining from soil investigation

2 20yd rolloff bin
2 55 gal drum
2 35 gal drum
2 decon pad (in rolloff bin)

1800 End Sit dy

12-19-01 028

Samples Collected on 12-19-01

Time	Boring #	Depth	Analysis
0744	SB12	1.5-2.0	8260
0750		3.5-4.0	
0756		5.5-6.0	
0855		11.0-12.0 +QA	
0830		19.5-20.0	
0845		24.5-25.0	
0700	Trip Blank for PDP		
0910	SB11	1.5-2.0	
0915		3.5-4.0	
0919		5.5-6.0	
0927		11.5-12.0	
0950		19.5-20.0	
1005		24.5-25.0	
1112	SB04	1.5-2.0	
1119		3.5-4.0	
1124		5.5-6.0	
1135		11.0-12.0 +QA	
1150		19.5-20.0	
1206		24.5-25.0	
1227	SB03	1.5-2.0	
1237		3.5-4.0	
1243		5.5-6.0	

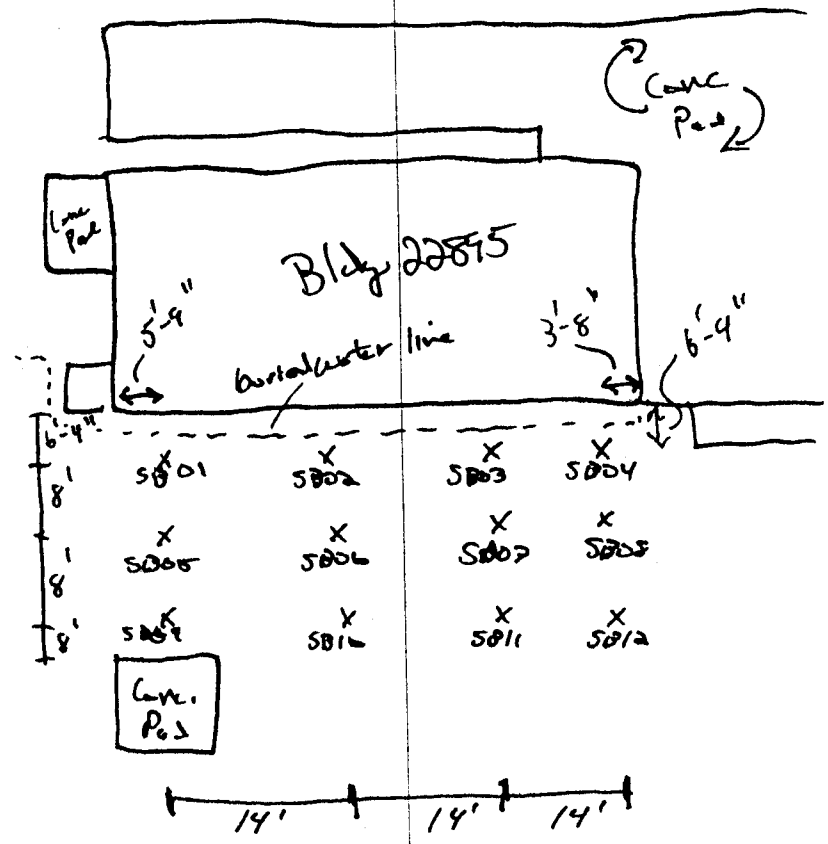
12-19-01

Samples Collected on 12-19-01 cont'd

Time	Boring #	Depth	Analysis
1253	SB #3	11.5-12.0	8260
1318		19.5-20.0	
1331		24.0-25.0 +QA	
1408	SB #2	1.5-2.0	
1416		3.5-4.0	
1420		5.5-6.0	
1430		11.5-12.0	
1447		19.5-20.0	
1458		24.5-25.0	
1538	SB #1	1.5-2.0	
1548		3.5-4.0	
1552		6.5-6.0	
1600		11.0-12.0 +QA	
1620		19.5-20.0	
1635		24.5-25.0	

Note: Primary Laboratory
PDP Analytical Services
(The Woodlands, TX)
QA Lab
Assayai Analytical Lab
(El Paso, TX)

12-19-01



032 1-25-02

MEUATEC field technicians disposed all purge water & decon water as non-haz waste @ the WSMR Hazmin Center.

In total:
35 - 55 gal drums
1 - 35 gal drum

SPW

1-28-02 033

All drums disposed @ WSMR Hazmin Center (Thurman Smith) as non-hazardous waste.

Gabe Garcia (MEUATEC) handled disposal.

034 2-13-02

Disposed of soil cuttings as non hazardous waste. Used SWJ Disposal. Cuttings manifested through WSMR HazMin Center (Co. Thurman Smith) to the CC Transfer Station.

Greg Watson handled disposal.

APPENDIX G

Copies of field geologic logs

DRILLING LOG

DIVISION	Environmental Services
INSTALLATION	White Sands Missile Range
HOLE No.	SB01
SHEET No.	1 OF 1
1. PROJECT	HWSF Evaporation Tank (SWMU90)
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	Ground Surface
2. LOCATION (Coordinates or Station)	Hazardous Waste Storage Facility
12. MANUFACTURER'S DESIGNATION OF DRILL	CME 75 HSA (2"Ø x 2' SS)
3. DRILLING AGENCY	Rabe Kistner, Inc
13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN	7 Envir. Samples (6+1 Dup) — DISTURBED: 7 — UNDISTURBED: —
4. HOLE No. (As shown on drawing title and file number)	HWSF-SB01
14. TOTAL NUMBER CORE BOXES	—
5. NAME OF DRILLER	Manny Duenez
15. ELEVATION GROUND WATER	—
6. DIRECTION OF HOLE	[X] Vertical [ ] Inclined _____ Degrees from Vertical
16. DATE HOLE	STARTED: 12-19-01 — COMPLETED: 12-19-01
7. THICKNESS OF OVERBURDEN	>25'
17. ELEVATION TOP OF HOLE	—
8. DEPTH DRILLED INTO ROCK	Ø
18. TOTAL CORE RECOVERY FOR BORING	—
9. TOTAL DEPTH OF HOLE	25' bgs
10. SIZE AND TYPE OF BIT	8" OD 4.25" ID HSA
19. SIGNATURE OF INSPECTOR	[signature]

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
		Time	Zero @ 1530			
	0	1538	silty sand, light br to tan loose, dry	95%	1.5-2.0	silty sand
		1548	↓ Same } slight moisture	100%	3.5-4.0	
	5	1552	↓ Same	100%	5.5-6.0	
	10		increasing sands			
		1600		100%	11.0-12.0	
	15					
SIA → Stringer	20	1620	fine grained, poorly sorted sand, tan, loose, dry	80%	19.5-20.0	fine grained sand
		1635	↓ Same	100%	24.5-25.0	
	25		TD @ 25' bgs			
	30					
	35					
	40					
	45					

DRILLING LOG

DIVISION	Environmental Services
INSTALLATION	White Sands Missile Range
HOLE No.	SB Ø2
SHEET No.	1 OF 1
1. PROJECT	HWSF Evaporation Tank (SWMU90)
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	Ground Surface
2. LOCATION (Coordinates or Station)	Hazardous Waste Storage Facility
12. MANUFACTURER'S DESIGNATION OF DRILL	CME 75 HSA (2"Ø x 2' SS)
3. DRILLING AGENCY	Rabe Kistner, Inc
13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN	DISTURBED: ; UNDISTURBED:
4. HOLE No. (As shown on drawing title and file number)	HWSF-SB Ø2
14. TOTAL NUMBER CORE BOXES	—
5. NAME OF DRILLER	Manny Duenez
15. ELEVATION GROUND WATER	—
6. DIRECTION OF HOLE	[X] Vertical [ ] Inclined ____ Degrees from Vertical
16. DATE HOLE	STARTED 12-19-01; COMPLETED 12-19-01
7. THICKNESS OF OVERBURDEN	>25'
17. ELEVATION TOP OF HOLE	—
8. DEPTH DRILLED INTO ROCK	Ø
18. TOTAL CORE RECOVERY FOR BORING	
9. TOTAL DEPTH OF HOLE	25'
10. SIZE AND TYPE OF BIT	8"OD 4.25"ID HSA
19. SIGNATURE OF INSPECTOR	[signature]

ELEVATION a	DEPTH b	LEGEND c (Time)	CLASSIFICATION OF MATERIALS (description) d (Rig up @ 1400)	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0	1408	fine grained, well sorted sand, loose, dry, tan	90%	1.5-2.0	fine grained sand
		1416	Same	90%	3.5-4.0	
	5	1420	increasing sands	95%	5.5-6.0	increasing sands
	10	1430	Same, slight moisture	90%	11.5-12.0	
	15		increasing sands			
	20	1447	fine grained, poorly sorted sand, tan, loose, dry	90%	19.5-20.0	
		1458	Same	95%	24.5-25.0	
	25		TDE 25' bgs			
	30					
	35					
	40					
	45					

DRILLING LOG

DIVISION	Environmental Services
INSTALLATION	White Sands Missile Range
HOLE No.	SB03
SHEET No.	1 OF 1
1. PROJECT	HWSF Evaporation Tank (SWMU90)
2. LOCATION (Coordinates or Station)	Hazardous Waste Storage Facility
3. DRILLING AGENCY	Raba Kistner, Inc
4. HOLE No. (As shown on drawing title and file number)	HWSF-SB03
5. NAME OF DRILLER	Manny Duenez
6. DIRECTION OF HOLE	[X] Vertical [ ] Inclined _____ Degrees from Vertical
7. THICKNESS OF OVERBURDEN	> 25'
8. DEPTH DRILLED INTO ROCK	Ø
9. TOTAL DEPTH OF HOLE	25'
10. SIZE AND TYPE OF BIT	8" OD 4.25" ID HSA
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	Ground Surface
12. MANUFACTURER'S DESIGNATION OF DRILL	CME 75 HSA (2"Øx2' SS)
13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN	7 Env. Samples (6+1QA) — DISTURBED: 7 — UNDISTURBED: —
14. TOTAL NUMBER CORE BOXES	—
15. ELEVATION GROUND WATER	—
16. DATE HOLE	STARTED 12-19-01 — COMPLETED 12-19-01
17. ELEVATION TOP OF HOLE	—
18. TOTAL CORE RECOVERY FOR BORING	≈ 90%
19. SIGNATURE OF INSPECTOR	[signature]

ELEVATION a	DEPTH b	LEGEND c (Time)	CLASSIFICATION OF MATERIALS (description) d (Begin @ 1220)	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0	1227	fine grained sand, loose, dry, tan to brown, well sorted, fine,	95%	1.5-2.0	fine grained sand
		1237	Same ↓ increasing fine sands	90%	3.5-4.0	
	5	1243	Same	95%	5.5-6.0	increasing fines to a brown to silty sand
			↓ increasing fines			
	10	1253	fine grained sand, well sorted, loose, dry, tan → light brown	90%	11.5-12.0	
	15		↓ increasing fines, slight moisture			silty sand slight moisture
	20	1318	fine grained, poorly sorted sand, loose, dry, silty clay, med stiff, red → brown	90%	19.5-20.0	fine grained sand silty clay
			↓ increasing sands			
	25	1331	fine grained, poorly sorted sand, loose, dry, tan	95%	24.0-25.0	
			TD @ 25' bgs			
	30					
	35					
	40					
	45					

DRILLING LOG

DIVISION	Environmental Services
INSTALLATION	White Sands Missile Range
HOLE No.	SB04
SHEET No.	1 OF 1
1. PROJECT	HWSF Evaporation Tank (SWMU90)
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	Ground Surface
2. LOCATION (Coordinates or Station)	Hazardous Waste Storage Facility
12. MANUFACTURER'S DESIGNATION OF DRILL	CME 75 HSA (2"Ø x 2' SS)
3. DRILLING AGENCY	Raba Kistner, Inc
13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN	7 Conv. Samples (6+1 QA) — DISTURBED: 7 — UNDISTURBED:
4. HOLE No. (As shown on drawing title and file number)	HWSF - SB04
14. TOTAL NUMBER CORE BOXES	—
5. NAME OF DRILLER	Manny Duenez
15. ELEVATION GROUND WATER	—
6. DIRECTION OF HOLE	[X] Vertical [ ] Inclined _____ Degrees from Vertical
16. DATE HOLE	STARTED: 12-19-01 — COMPLETED: 12-19-01
7. THICKNESS OF OVERBURDEN	>25'
17. ELEVATION TOP OF HOLE	—
8. DEPTH DRILLED INTO ROCK	Ø
18. TOTAL CORE RECOVERY FOR BORING	≈ 90%
9. TOTAL DEPTH OF HOLE	25'
10. SIZE AND TYPE OF BIT	8" OD, 4.25" ID HAS
19. SIGNATURE OF INSPECTOR	[signature]

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g
		Time	Pipe 1105			
	0	1112	light br to red silty sand loose, dry	95%	1.5-2.0	Silty sand
		1119	Same	85%	3.5-4.0	
	5	1124	Increasing sands	95%	5.5-6.0	
	10	1135	Fine grained sand, well sorted loose, slight moisture	90%	11.0-12.0	Fine grained sand
	15		Increasing fines			increasing to silty sand
	20	1150	Fine grained, poor sorted sand, loose, dry tan to brown	85%	19.5-20.0	Fine grained sand
	25	1206	Same	60%	24.5-25.0	
			TD @ 25' bgs			
	30					
	35					
	40					
	45					

DRILLING LOG

DIVISION: Environmental Services	INSTALLATION: White Sands Missile Range	HOLE No.: SB-Ø5	SHEET No.: 1 OF 1

1. PROJECT: HWSF Evaporation Tank (SWMU 90)	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): Ground Surface
2. LOCATION (Coordinates or Station): Hazardous Waste Storage Facility	12. MANUFACTURER'S DESIGNATION OF DRILL: CME 75 HSA (2"Ø x 2' SS)
3. DRILLING AGENCY: Raba Kistner, Inc	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN: 6 Envir. Samples; DISTURBED: 6; UNDISTURBED: —
4. HOLE No. (As shown on drawing title and file number): HWSF - SB Ø5	14. TOTAL NUMBER CORE BOXES: —
5. NAME OF DRILLER: Manny Duenez	15. ELEVATION GROUND WATER: —
6. DIRECTION OF HOLE: [X] Vertical [ ] Inclined _____ Degrees from Vertical	16. DATE HOLE: STARTED: 12-18-01; COMPLETED: 12-18-01
7. THICKNESS OF OVERBURDEN: > 25'	17. ELEVATION TOP OF HOLE: —
8. DEPTH DRILLED INTO ROCK: —	18. TOTAL CORE RECOVERY FOR BORING: ≈ 85%
9. TOTAL DEPTH OF HOLE: 25'	10. SIZE AND TYPE OF BIT: 8" OD 4.25" ID HSA
	19. SIGNATURE OF INSPECTOR: [signature]

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER ~~Sample Interval~~	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
		Time	Rig up @ 1055			
	0	1102	Light br to red, sandy silt loose, dry	50%	1.5-2.0	Sandy silt
		1110	↓ same	75%	3.5-4.0	↓
	5	1114	fine grained well sorted sand, loose, dry, tan	95%	5.5-6.0	fine grained sand
			↓ increasing fines			↓
	10	1124	silty sand, soft, br to tan, dry, loose	90%	11.5-12.0	silty sand
			↓ increasing fines			↓
	15					increasing fines
						↓
	20	1145	sandy, clayey silt, brown/ tan; poor sorted fine grained sand, loose, dry, tan	85%	19.5-20.0	Sandy, clayey, silt
			↓ same			
	25	1202	TD @ 25'	90%	24.5-25.0	
	30					
	35					
	40					
	45					

DRILLING LOG

DIVISION	Environmental Services
INSTALLATION	White Sands Missile Range
HOLE No.	SB-Ø6
SHEET No.	1 OF 1
1. PROJECT	HWSF Evaporation Tank (SWMU 90)
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	Ground Surface
2. LOCATION (Coordinates or Station)	Hazardous Waste Storage Facility
12. MANUFACTURER'S DESIGNATION OF DRILL	CME 75 (2"Ø x 2' SS)
3. DRILLING AGENCY	Raba Kistner, Inc
13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN	7 (6+1 QA) — DISTURBED: 7 — UNDISTURBED: —
4. HOLE No. (As shown on drawing title and file number)	HWSF-SBØ6
14. TOTAL NUMBER CORE BOXES	—
5. NAME OF DRILLER	Manny Duenez
15. ELEVATION GROUND WATER	—
6. DIRECTION OF HOLE	☒ Vertical ☐ Inclined _____ Degrees from Vertical
16. DATE HOLE	12-18-01 — STARTED: — COMPLETED: —
7. THICKNESS OF OVERBURDEN	>25'
17. ELEVATION TOP OF HOLE	—
8. DEPTH DRILLED INTO ROCK	Ø
18. TOTAL CORE RECOVERY FOR BORING	≈ 80%
9. TOTAL DEPTH OF HOLE	25' bgs
10. SIZE AND TYPE OF BIT	8" OD 4.25" ID HSA
19. SIGNATURE OF INSPECTOR	[signature]

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER Sample Interval	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g
			Rig up @ 1215			
	0	1225	silty sand, f-m, loose, dry	95%	1.5-2.0	silty sand
		1231	↓ Same	60%	3.0-4.0	↓
	5	1236	↓ Same	70%	5.5-6.0	↓
PVC in cuttings →	10	1250	fine grained sand, well sorted, loose, slight moisture	80%	11.5-12.0	fine grained sand
	15					↓
	20	1311	poorly sorted fine grained sand, loose, dry, tan w/ white gypsum layers	80%	19.5-20.0	↓
		1321	↓ Same	80%	24.5-25.0	↓
	25		TD @ 25'			
	30					
	35					
	40		HWSF-SBØ6-EB ↓ Equipment blank →		3 - 40 ml VOAs & PDP 8260	
		1330				
	45	1330	Tap Water Sample →	Same		

HWSF-SBØ6-TapWater

DRILLING LOG

DIVISION	Environmental Services
INSTALLATION	White Sands Missile Range
HOLE No.	SB07
SHEET No.	1 OF 1
1. PROJECT	HWSF Evaporation Tank (SWMU90)
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	Ground Surface
2. LOCATION (Coordinates or Station)	Hazardous Waste Storage Facility
12. MANUFACTURER'S DESIGNATION OF DRILL	CME 75
3. DRILLING AGENCY	Raba Kistner, Inc
13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN	7 (6 + 1 QA) — DISTURBED: 7 — UNDISTURBED: —
4. HOLE No. (As shown on drawing title and file number)	HWSF-SB07
14. TOTAL NUMBER CORE BOXES	—
5. NAME OF DRILLER	Manny Duenez
15. ELEVATION GROUND WATER	—
6. DIRECTION OF HOLE	[X] Vertical [ ] Inclined _____ Degrees from Vertical
16. DATE HOLE	STARTED: 12-18-01 — COMPLETED: 12-18-01
7. THICKNESS OF OVERBURDEN	>25'
17. ELEVATION TOP OF HOLE	—
8. DEPTH DRILLED INTO ROCK	Ø
18. TOTAL CORE RECOVERY FOR BORING	≈ 90%
9. TOTAL DEPTH OF HOLE	25'
10. SIZE AND TYPE OF BIT	8" OD 4.25" ID HSA
19. SIGNATURE OF INSPECTOR	[signature]

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
			Rig up @ 1345			
	0	1351	light brown silty sand loose, dry	95%	1.5-2.0	Silty Sand
		1358	↓ Same	70%	3.5-4.0	↓
	5	1403	fine grained sand loose, dry, light br to tan	90%	5.5-6.0	fine grained sand
	10	1414	fine grained, well sorted sand, tan → light brown loose, slight moisture	100%	11.5-12.0	increasing fines
	15		↓ increasing moisture			↓
	20	1442	fine grained poorly sorted sand, loose, dry	95%	19.5-20.0	= cemented sand stringer
		1457	↓ Same	85%	24.0-25.0	
	25		TD @ 25' bgs			
	30					
	35					
	40					
	45					

DRILLING LOG	DIVISION: Environmental Services	INSTALLATION: White Sands Missile Range	HOLE No.: SB Ø8	SHEET No.: 1 OF 1

1. PROJECT: HWSF Evaporation Tank (SWMU 90)	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): Ground Surface
2. LOCATION (Coordinates or Station): Hazardous Waste Storage Facility	12. MANUFACTURER'S DESIGNATION OF DRILL: CME 75 (2"Ø x 2' SS)
3. DRILLING AGENCY: Raba Kistner, Inc	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN: 6 Env. Samples; DISTURBED: 6; UNDISTURBED: —
4. HOLE No. (As shown on drawing title and file number): HWSF-SB Ø8	14. TOTAL NUMBER CORE BOXES: —
5. NAME OF DRILLER: Manny Duenez	15. ELEVATION GROUND WATER: —
6. DIRECTION OF HOLE: [X] Vertical [ ] Inclined _____ Degrees from Vertical	16. DATE HOLE: STARTED 12-18-01; COMPLETED 12-18-01
7. THICKNESS OF OVERBURDEN: >25'	17. ELEVATION TOP OF HOLE: —
8. DEPTH DRILLED INTO ROCK: Ø	18. TOTAL CORE RECOVERY FOR BORING:
9. TOTAL DEPTH OF HOLE: 25'	10. SIZE AND TYPE OF BIT: 8" OD 4.25" ID HSA
	19. SIGNATURE OF INSPECTOR: [signature]

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER (Sample Interval)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
		Time	Group C 1557			
	0	1601	Light brn to red silty sand, loose, dry	40%	1.5-2.0	silty sand
		1610	Same w/ caliche stringers	80%	3.5-4.0	calcite stringers
	5	1614		80%	6.5-6.0	
			increasing fines, med stiff			
	10	1623	soft	90%	11.5-12.0	
	15		Same, increasing fines,			
		1645	clay silty, med stiff, brown poor sorted fine grained sand, loose, dry, tan	95%	19.5-20.0	
	20					
		1655	Same		24.5-25.0	
	25		TD @ 25' bgs			
	30					
	35					
	40					
	45					

DRILLING LOG

DIVISION	Environmental Services
INSTALLATION	White Sands Missile Range
HOLE No.	SB09
SHEET No.	1 OF 1
1. PROJECT	HWSF Evaporation Tank (SWMU 90)
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	Ground Surface
2. LOCATION (Coordinates or Station)	Hazardous Waste Storage Facility
12. MANUFACTURER'S DESIGNATION OF DRILL	CME 75 HSA 8" ØD 4.25" ID 2"x2' Split Spoon
3. DRILLING AGENCY	Raba Kistner, Inc
13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN	13 lith / 6 env.
DISTURBED	13 lith
UNDISTURBED	
4. HOLE No. (As shown on drawing title and file number)	HWSF - SB09
14. TOTAL NUMBER CORE BOXES	—
5. NAME OF DRILLER	Manny Duenez
15. ELEVATION GROUND WATER	—
6. DIRECTION OF HOLE	[X] Vertical [ ] Inclined _____ Degrees from Vertical
16. DATE HOLE	12-17-01
STARTED	12/17/01
COMPLETED	12/17/01
7. THICKNESS OF OVERBURDEN	> 25'
17. ELEVATION TOP OF HOLE	—
8. DEPTH DRILLED INTO ROCK	—
18. TOTAL CORE RECOVERY FOR BORING	≈ 75%
9. TOTAL DEPTH OF HOLE	25'
10. SIZE AND TYPE OF BIT	8" OD 4.25" ID HSA
19. SIGNATURE OF INSPECTOR	[signature]

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER	REMARKS (Drilling time, water loss, depth of weathering, etc., if significent) g
		Time	Rig up @ 1130		Sample Interval	
	0	1140	Light brown sandy silt loose, dry	100%	1.5-2.0	Sandy silt
		1150	↓ same	60%	3.5-4.0	↓ increasing fines
	5	1155	< white gypsum layer	50%	5.5-6.0	= gypsum
			↓ increasing fines med stiff	90%	None	↓
			large, light br sandy silt dry	60%	None	sandy silt
	10	1220	↓ very slight moisture	95%	11.5-12.0	↓
			↓ same	95%	None	
	15		= gray hard layer sandy silt	80%	None	
			↓ same fine grained	100%	None	
			= poorly graded sand, tan, loose			Sand
	20	1300	↓ slight moisture	75%	19.5-20	
			↓ same	75%	None	
				85%	Next spoon	
	25	1320	↓ same	50%	24.5-25.0	↓
			TD @ 25' bgs			
	30					
	35					
	40					
	45					

Sample Int

DRILLING LOG

DIVISION: Environmental Services	INSTALLATION: White Sands Missile Range	HOLE No.: SB 1Ø	SHEET No.: 1 OF 1

1. PROJECT: HWSF Evaporation Tank (SWMU90)	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): Ground Surface
2. LOCATION (Coordinates or Station): Hazardous Waste Storage Facility	12. MANUFACTURER'S DESIGNATION OF DRILL: CME 75 HSA (2"ØX2' SS)
3. DRILLING AGENCY: Raba Kistner, Inc	13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN: 7 (6+1 QA) — DISTURBED: 7 — UNDISTURBED:
4. HOLE No. (As shown on drawing title and file number): HWSF-SB1Ø	14. TOTAL NUMBER CORE BOXES: —
5. NAME OF DRILLER: Manny Duenez	15. ELEVATION GROUND WATER: —
6. DIRECTION OF HOLE: [X] Vertical [ ] Inclined _____ Degrees from Vertical	16. DATE HOLE — STARTED: 12-17-01 — COMPLETED: 12-17-01
7. THICKNESS OF OVERBURDEN: > 25'	17. ELEVATION TOP OF HOLE: —
8. DEPTH DRILLED INTO ROCK: —	18. TOTAL CORE RECOVERY FOR BORING: ≈ 80%
9. TOTAL DEPTH OF HOLE: 25' — 10. SIZE AND TYPE OF BIT: 8" OD 4.25" ID	19. SIGNATURE OF INSPECTOR: [signature]

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER (Sample Interval)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
		Time	Rig up @ 1423			
	0	1425	light brown sandy silt loose, dry	100%	1.5-2.0	Sandy silt
		1427	well sorted fine grain sand light br, dry, med stiff	75%	3.5-4.0	
	5	1443	light br, silty sand cbbt, dry	75%	5.5-6.0	
	10	1450	Same, slight moisture	75%	11-12.0	QA
	15		increasing fines			increasing fines
	20	1504	clayey silt, med stiff, tan poorly sorted fine grained sand, tan, loose, dry	80%	19.5-20.0	Sand
	25	1522	Same	95%	24.5-25.0	
			TD @ 25' bgs			
	30					
	35					
	40					
	45					

DRILLING LOG

DIVISION	Environmental Services
INSTALLATION	White Sands Missile Range
HOLE No.	SB11
SHEET No.	1 OF 1
1. PROJECT	HWSF Evaporation Tank (SWMU90)
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	Ground Surface
2. LOCATION (Coordinates or Station)	Hazardous Waste Storage Facility
12. MANUFACTURER'S DESIGNATION OF DRILL	CME 75 HSA (2¼" x 2' SS)
3. DRILLING AGENCY	Raba Kistner, Inc
13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN	6 Env. Samples; DISTURBED: 6; UNDISTURBED: —
4. HOLE No. (As shown on drawing title and file number)	HWSF-SB11
14. TOTAL NUMBER CORE BOXES	—
5. NAME OF DRILLER	Manny Duenez
15. ELEVATION GROUND WATER	—
6. DIRECTION OF HOLE	☒ Vertical ☐ Inclined _____ Degrees from Vertical
16. DATE HOLE	12-19-01; STARTED: ; COMPLETED:
7. THICKNESS OF OVERBURDEN	>25'
17. ELEVATION TOP OF HOLE	—
8. DEPTH DRILLED INTO ROCK	Ø
18. TOTAL CORE RECOVERY FOR BORING	≈90%
9. TOTAL DEPTH OF HOLE	25'
10. SIZE AND TYPE OF BIT	8" OD 4.25" ID HSA
19. SIGNATURE OF INSPECTOR	[signature]

ELEVATION a	DEPTH b	LEGEND c (Time)	CLASSIFICATION OF MATERIALS (description) d (Rig up @ 0905)	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0	0910	light brown to red silty sand (base), dry	80%	1.5-2.0	Silty sand
		0915	3" gypsum layers white to light gray, some cavity stringers above	80%	3.5-4.0	gypsum stringers
	5	0919	Same	90%	5.5-6.0	
			increasing fines			
	10	0927		75%	11.5-12.0	
	15		increasing fines			
	20	0950	fine grained, poor sorted sand, loose, dry	100%	19.5-20.0	fine grained sand
	25	1005	Same = clay, silt stringer, moist	95%	24.5-25.0	= clay silt stringer
			TD @ 25' bgs			
	30					
	35					
	40					
	45					

DRILLING LOG

DIVISION	Environmental Services
INSTALLATION	White Sands Missile Range
HOLE No.	SB12
SHEET No.	1 OF 1
1. PROJECT	HWSF Evaporation Tank (SWMU 90)
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	Ground Surface
2. LOCATION (Coordinates or Station)	Hazardous Waste Storage Facility
12. MANUFACTURER'S DESIGNATION OF DRILL	CME 75 HSA (2" Ø x 2' SS)
3. DRILLING AGENCY	Raba Kistner, Inc
13. TOTAL No. OF OVERBURDEN SAMPLES TAKEN	7 samples (6+1 QA)
DISTURBED	7
UNDISTURBED	—
4. HOLE No. (As shown on drawing title and file number)	HWSF-SB12
14. TOTAL NUMBER CORE BOXES	
5. NAME OF DRILLER	Manny Duenez
15. ELEVATION GROUND WATER	—
6. DIRECTION OF HOLE	☒ Vertical ☐ Inclined _____ Degrees from Vertical
16. DATE HOLE	STARTED 12-19-01 COMPLETED 12-19-01
7. THICKNESS OF OVERBURDEN	>25'
17. ELEVATION TOP OF HOLE	—
8. DEPTH DRILLED INTO ROCK	Ø
18. TOTAL CORE RECOVERY FOR BORING	≈ 90%
9. TOTAL DEPTH OF HOLE	25'
10. SIZE AND TYPE OF BIT	8" OD 4.25" ID HSA
19. SIGNATURE OF INSPECTOR	[signature]

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (description) d	% CORE RECOVERY e	BOX OR SAMPLE NUMBER f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
		Time	Rig up @ 0735			
	0	0744	Light br silty sand, loose, dry = gypsum, white to gray	75%	1.5-2.0	silty sand
		0750	Same silty sand w/ gypsum stringers	60%	3.5-4.0	gypsum stringers
	5	0756	Same silty sand	90%	5.5-6.0	
			increasing fines			
	10	0805		90%	11.0-12.0	
			Same			
	15					
			red stiff			
	20	0830	fine grained, poorly sorted sand, tan to brown, loose, dry	90%	19.5-20.0	fine grained sand
			Same			
	25	0845	TD @ 25' bgs	100%	24.5-25.0	
	30					
	35					
	40					
	45	0720	Trip Blanks - 3 40 mL VOA. - HWSF-TB-03 for 8260			

APPENDIX H

Analytical Data – Centrum Analytical Laboratories, Inc.

Centrum Analytical Laboratories, Inc.
CERTIFIED HAZARDOUS WASTE TESTING MOBILE & IN HOUSE LABORATORIES

Client:	Mevatec Corporation P.O. Box 399 White Sands, NM 88002-0399	Date Sampled: Date Received: Job Number:	12/13/01 12/13/01 M4-327

Project: HWSF Evaporation Tank

CASE NARRATIVE

The following information applies to samples which were received for analysis by Centrum Analytical Mobile Environmental Laboratory Number Four (MEL #4) on: 12/13/01

The samples were received at the project site intact and were analyzed immediately.

Unless otherwise noted below, the Quality Control acceptance criteria were met for all samples for every analysis requested. The date of issue for this report is 01/03/02.

Report approved by:

Tom Wilson
Laboratory Director

Rodolfo Vergara, Jr.
Quality Assurance Manager

ELAP # 2419

DL : Detection Limit -- The lowest level at which the compound can reliably be detected under normal laboratory conditions.
ND : Not Detected -- The compound was analyzed for but was not found to be present at or above the detection limit.
NA : Not Analyzed -- Per client request, this analyte was not on the list of compounds to be analyzed for.

909•779•0310 OR 800•798•9336 fax 909•779•0344
www.centrum-labs.com 1401 Research Park Drive, Suite 100, Riverside, CA 92507

Centrum Analytical Laboratories, Inc.

Volatile Organics - GCMS

Client:	Mevatec Corporation	Date Sampled:	12/13/01
Project:	HWSF Evaporation Tank	Date Received:	12/13/01
Job No.:	M4-327	Date Analyzed:	12/13/01
Matrix:	Vapor	Batch Number:	M48260V578
Analyst:	MBH		

	Sample ID:	Amb. Blk.	SG17-10'	SG6-10'	SG18-10'	SG23-10'	SG20-10'
Compounds	**DL**	µg/L of air	µg/L of air	µg/L of air	µg/L of air	µg/L of air	µg/L of air
Acetone	50	ND	ND	ND	ND	ND	ND
t-Amyl-methyl ether (TAME)	10	ND	ND	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND	ND	ND
Bromobenzene	1.0	ND	ND	ND	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1.0	ND	ND	ND	ND	ND	ND
Bromoform	1.0	ND	ND	ND	ND	ND	ND
Bromomethane	1.0	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	50	ND	ND	ND	ND	ND	ND
t-Butyl alcohol (TBA)	10	ND	ND	ND	ND	ND	ND
n-Butylbenzene	1.0	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	1.0	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	1.0	ND	ND	ND	ND	ND	ND
Carbon disulfide	10	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1.0	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.0	ND	ND	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND	ND	ND
Chloromethane	5.0	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	1.0	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	1.0	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1.0	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	1.0	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	1.0	ND	ND	ND	ND	ND	ND
Dibromomethane	1.0	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	1.0	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1.0	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1.0	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	1.0	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	2.0	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	1.0	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND	ND

Centrum Analytical Laboratories, Inc.

Volatile Organics - GCMS

Client:	Mevatec Corporation	Date Sampled:	12/13/01
Project:	HWSF Evaporation Tank	Date Received:	12/13/01
Job No.:	M4-327	Date Analyzed:	12/13/01
Matrix:	Vapor	Batch Number:	M48260V578
Analyst:	MBH		

	Sample ID:	Amb. Blk.	SG17-10'	SG6-10'	SG18-10'	SG23-10'	SG20-10'
Compounds	**DL**	µg/L of air	µg/L of air	µg/L of air	µg/L of air	µg/L of air	µg/L of air
Ethylbenzene	1.0	ND	ND	ND	ND	ND	ND
Ethyl-t-butyl ether (ETBE)	10	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	1.0	ND	ND	ND	ND	ND	ND
2-Hexanone	10	ND	ND	ND	ND	ND	ND
Isopropylbenzene	1.0	ND	ND	ND	ND	ND	ND
Diisopropyl ether (DIPE)	10	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	1.0	ND	ND	ND	ND	ND	ND
Methylene chloride	20	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	10	ND	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MtBE)	2.0	ND	ND	ND	ND	ND	ND
Napthalene	2.0	ND	ND	ND	ND	ND	ND
n-Propylbenzene	1.0	ND	ND	ND	ND	ND	ND
Styrene	1.0	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND	ND	ND
Toluene	1.0	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND	ND	ND
Trichloroethene	1.0	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	1.0	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND	ND	ND
Trichlorotrifluoroethane	5.0	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	1.0	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	1.0	ND	ND	ND	ND	ND	ND
Vinyl chloride	1.0	ND	ND	ND	ND	ND	ND
m,p -Xylenes	2.0	ND	ND	ND	ND	ND	ND
o -Xylene	1.0	ND	ND	ND	ND	ND	ND

Surrogates (% recovery) Limits: 70 - 130

Sample ID:	Amb. Blk.	SG17-10'	SG6-10'	SG18-10'	SG23-10'	SG20-10'
Dibromofluoromethane	101	101	103	101	102	105
Toluene-d8	100	101	97	98	99	99
Bromofluorobenzene	99	100	101	100	99	102

Centrum Analytical Laboratories, Inc.

Volatile Organics - GCMS

Client:	Mevatec Corporation	Date Sampled:	12/13/01
Project:	HWSF Evaporation Tank	Date Received:	12/13/01
Job No.:	M4-327	Date Analyzed:	12/13/01
Matrix:	Vapor	Batch Number:	M48260V578
Analyst:	MBH		

	Sample ID:	SG21-10'	SG22-10'	SG30-10'	SG03-10'	SG04-10'	SG05-10'
Compounds	**DL**	µg/L of air	µg/L of air	µg/L of air	µg/L of air	µg/L of air	µg/L of air
Acetone	50	ND	ND	ND	ND	ND	ND
t-Amyl-methyl ether (TAME)	10	ND	ND	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND	ND	ND
Bromobenzene	1.0	ND	ND	ND	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1.0	ND	ND	ND	ND	ND	ND
Bromoform	1.0	ND	ND	ND	ND	ND	ND
Bromomethane	1.0	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	50	ND	ND	ND	ND	ND	ND
t-Butyl alcohol (TBA)	10	ND	ND	ND	ND	ND	ND
n-Butylbenzene	1.0	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	1.0	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	1.0	ND	ND	ND	ND	ND	ND
Carbon disulfide	10	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1.0	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.0	ND	ND	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND	ND	ND
Chloromethane	5.0	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	1.0	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	1.0	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1.0	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	1.0	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	1.0	ND	ND	ND	ND	ND	ND
Dibromomethane	1.0	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	1.0	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1.0	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1.0	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	1.0	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	2.0	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	1.0	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND	ND

Centrum Analytical Laboratories, Inc.

Volatile Organics - GCMS

Client:	Mevatec Corporation	Date Sampled:	12/13/01
Project:	HWSF Evaporation Tank	Date Received:	12/13/01
Job No.:	M4-327	Date Analyzed:	12/13/01
Matrix:	Vapor	Batch Number:	M48260V578
Analyst:	MBH		

	Sample ID:	SG21-10'	SG22-10'	SG30-10'	SG03-10'	SG04-10'	SG05-10'
Compounds	**DL**	µg/L of air	µg/L of air	µg/L of air	µg/L of air	µg/L of air	µg/L of air
Ethylbenzene	1.0	ND	ND	ND	ND	ND	ND
Ethyl-t-butyl ether (ETBE)	10	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	1.0	ND	ND	ND	ND	ND	ND
2-Hexanone	10	ND	ND	ND	ND	ND	ND
Isopropylbenzene	1.0	ND	ND	ND	ND	ND	ND
Diisopropyl ether (DIPE)	10	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	1.0	ND	ND	ND	ND	ND	ND
Methylene chloride	20	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	10	ND	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MtBE)	2.0	ND	ND	ND	ND	ND	ND
Napthalene	2.0	ND	ND	ND	ND	ND	ND
n-Propylbenzene	1.0	ND	ND	ND	ND	ND	ND
Styrene	1.0	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND	ND	ND
Toluene	1.0	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND	ND	ND
Trichloroethene	1.0	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	1.0	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND	ND	ND
Trichlorotrifluoroethane	5.0	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	1.0	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	1.0	ND	ND	ND	ND	ND	ND
Vinyl chloride	1.0	ND	ND	ND	ND	ND	ND
m,p -Xylenes	2.0	ND	ND	ND	ND	ND	ND
o -Xylene	1.0	ND	ND	ND	ND	ND	ND

Surrogates (% recovery) Limits: 70 - 130

Sample ID:	SG21-10'	SG22-10'	SG30-10'	SG03-10'	SG04-10'	SG05-10'
Dibromofluoromethane	100	104	98	102	96	98
Toluene-d8	101	102	100	101	101	101
Bromofluorobenzene	100	98	101	100	96	101

Centrum Analytical Laboratories, Inc.

Volatile Organics - GCMS

Client:	Mevatec Corporation	Date Sampled:	12/13/01
Project:	HWSF Evaporation Tank	Date Received:	12/13/01
Job No.:	M4-327	Date Analyzed:	12/13/01
Matrix:	Vapor	Batch Number:	M48260V578
Analyst:	MBH		

	Sample ID:	SG24-10'	SG25-10'	SG26-10'	SG29-10'	SG27-10'	SG28-10'
Compounds	**DL**	µg/L of air	µg/L of air	µg/L of air	µg/L of air	µg/L of air	µg/L of air
Acetone	50	ND	ND	ND	ND	ND	ND
t-Amyl-methyl ether (TAME)	10	ND	ND	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND	ND	ND
Bromobenzene	1.0	ND	ND	ND	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1.0	ND	ND	ND	ND	ND	ND
Bromoform	1.0	ND	ND	ND	ND	ND	ND
Bromomethane	1.0	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	50	ND	ND	ND	ND	ND	ND
t-Butyl alcohol (TBA)	10	ND	ND	ND	ND	ND	ND
n-Butylbenzene	1.0	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	1.0	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	1.0	ND	ND	ND	ND	ND	ND
Carbon disulfide	10	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1.0	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.0	ND	ND	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND	ND	ND
Chloromethane	5.0	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	1.0	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	1.0	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1.0	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	1.0	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	1.0	ND	ND	ND	ND	ND	ND
Dibromomethane	1.0	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	1.0	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1.0	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1.0	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	1.0	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	2.0	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	1.0	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND	ND

Centrum Analytical Laboratories, Inc.

Volatile Organics - GCMS

Client:	Mevatec Corporation	Date Sampled:	12/13/01
Project:	HWSF Evaporation Tank	Date Received:	12/13/01
Job No.:	M4-327	Date Analyzed:	12/13/01
Matrix:	Vapor	Batch Number:	M48260V578
Analyst:	MBH		

	Sample ID:	SG24-10'	SG25-10'	SG26-10'	SG29-10'	SG27-10'	SG28-10'
Compounds	**DL**	µg/L of air	µg/L of air	µg/L of air	µg/L of air	µg/L of air	µg/L of air
Ethylbenzene	1.0	ND	ND	ND	ND	ND	ND
Ethyl-t-butyl ether (ETBE)	10	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	1.0	ND	ND	ND	ND	ND	ND
2-Hexanone	10	ND	ND	ND	ND	ND	ND
Isopropylbenzene	1.0	ND	ND	ND	ND	ND	ND
Diisopropyl ether (DIPE)	10	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	1.0	ND	ND	ND	ND	ND	ND
Methylene chloride	20	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	10	ND	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MtBE)	2.0	ND	ND	ND	ND	ND	ND
Napthalene	2.0	ND	ND	ND	ND	ND	ND
n-Propylbenzene	1.0	ND	ND	ND	ND	ND	ND
Styrene	1.0	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND	ND	ND
Toluene	1.0	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND	ND	ND
Trichloroethene	1.0	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	1.0	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND	ND	ND
Trichlorotrifluoroethane	5.0	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	1.0	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	1.0	ND	ND	ND	ND	ND	ND
Vinyl chloride	1.0	ND	ND	ND	ND	ND	ND
m,p -Xylenes	2.0	ND	ND	ND	ND	ND	ND
o -Xylene	1.0	ND	ND	ND	ND	ND	ND

Surrogates (% recovery) Limits: 70 - 130

Sample ID:	SG24-10'	SG25-10'	SG26-10'	SG29-10'	SG27-10'	SG28-10'
Dibromofluoromethane	100	100	100	100	108	105
Toluene-d8	101	103	102	101	99	99
Bromofluorobenzene	99	101	100	101	104	101

Centrum Analytical Laboratories, Inc.

QC Sample Report - GCMS

Matrix: Vapor
Batch: M48260V578

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration ug/L	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
1,1-Dichloroethene	50.0	**90**	59 - 172	**Pass**
Benzene	50.0	**94**	66 - 142	**Pass**
Trichloroethene	50.0	**102**	71 - 137	**Pass**
Toluene	50.0	**100**	59 - 139	**Pass**
Chlorobenzene	50.0	**99**	60 - 133	**Pass**

Analytical Notes:

Batch Precision Results

Duplicates: Laboratory Control Sample

Analyte	Sample Recovery ug/L	Duplicate Recovery ug/L	Relative Percent Difference (RPD)	Upper Control Limit RPD	Pass/Fail
1,1-Dichloroethene	44.8	46.1	**3%**	22%	**Pass**
Benzene	47.0	51.0	**8%**	21%	**Pass**
Trichloroethene	51.3	53.4	**4%**	24%	**Pass**
Toluene	50.2	54.6	**8%**	21%	**Pass**
Chlorobenzene	49.4	52.8	**7%**	21%	**Pass**

Analytical Notes:

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive, Suite 100
Riverside, CA 92507
Voice: 909.779.0310 ● 800.798.9336
Fax: 909.779.0344

3299 Hill Street, Suite 305
Signal Hill, CA 90806
Voice: 562.498.7005
Fax: 562.498.8617

www.centrum-labs.com lab@centrum-labs.com

Chain of Custody Record

Centrum Job # M4-327

Project No: 800-A9

Project Name: HWSF - Evaporation TANK

Project Manager: Greg Watterson

Phone: 505.678.0263

Fax: 6096

Client Name: (Report and Billing) Mevatec ~~Mevact~~ Corp

Address: (Report and Billing) P.O Box 399 White Sands NM 88002-399

Please Circle Analyses Requested

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MtBE Only	418.1 (TRPH), 413.2, 1664		GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524.2	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB		Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr		Remarks/Special Instructions
11	SG5-10	12/13/1	1300	Vapor		125cc Glass							X									
12	SG24-10		1324										X									
13	SG25-10		1348										X									
14	SG26-10		1418										X									
15	SG29-10		1445										X									
16	SG27-10		1517										X									
17	SG28-10		1540										X									

Turn-Around Time

- ☐ 24 Hr. RUSH*
- ☐ 48 Hr. RUSH*
- ☒ Normal TAT

*Requires PRIOR approval, additional charges apply

Requested due date: _____

	Date:	Time:		Date:	Time:
1) Relinquished by: (Sampler's Signature) X			3) Relinquished by:		
2) Received by:	12/13/1		4) Received by:		
			5) Relinquished by:		
			6) Received for Laboratory by:		

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

To be completed by Laboratory personnel:

Samples chilled? ☐ Yes ☐ No ☒ From Field

Custody seals? ☐ Yes ☒ No

All sample containers intact? ☒ Yes ☐ No

☐ Courier ☐ UPS/Fed Ex ☒ Hand carried

Sample Disposal

- ☐ Client will pick up
- ☐ Return to client
- ☐ Lab disposal

Laboratory Notes:

Sample Locator No.

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive, Suite 100
Riverside, CA 92507
Voice: 909.779.0310 ● 800.798.9336
Fax: 909.779.0344

3299 Hill Street, Suite 305
Signal Hill, CA 90806
Voice: 562.498.7005
Fax: 562.498.8617

www.centrum-labs.com lab@centrum-labs.com

Chain of Custody Record

Centrum Job # M4-327

Project No: 800-A9

Project Name: HWSF - Evaporation Tank

Project Manager: Greg Watterson

Phone: 505.678.0263 Fax: 6096

Client Name: (Report and Billing) Mevutec Corp.

Address: (Report and Billing) P.O. Box 399 White Sands NM 88002-399

Please Circle Analyses Requested

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MtBE Only	418.1 (TRPH), 413.2, 1664		GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524.2	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB		Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr		Remarks/Special Instructions
1	SG17-10'	12/13/1	815	VAPOR		125cc GlassBulb							X									
2	SG06-10'		839										X									
3	SG18-10'		913										X									
4	SG23-10'		947										X									
5	SG20-10'		1007										X									
6	SG21-10'		1028										X									
7	SG22-10'		1051										X									
8	SG30-10		1120										X									
9	SG3-10		1203										X									
10	SG4-10		1227										X									

Turn-Around Time
- ☐ 24 Hr. RUSH*
- ☐ 48 Hr. RUSH*
- ☒ Normal TAT

*Requires PRIOR approval, additional charges apply

Requested due date: _____

1) Relinquished by: (Sampler's Signature) Date: Time:

2) Received by: Date: 12/13/1 Time:

3) Relinquished by: Date: Time:

4) Received by: Date: Time:

5) Relinquished by: Date: Time:

6) Received for Laboratory by: Date: Time:

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

To be completed by Laboratory personnel:
Samples chilled? ☐ Yes ☐ No ☒ From Field
Custody seals? ☐ Yes ☒ No
All sample containers intact? ☒ Yes ☐ No
☐ Courier ☐ UPS/Fed Ex ☒ Hand carried

Sample Disposal
- ☐ Client will pick up
- ☐ Return to client
- ☐ Lab disposal

Remarks/Special Instructions

Laboratory Notes:

Sample Locator No.

Centrum Analytical Laboratories, Inc.
CERTIFIED HAZARDOUS WASTE TESTING MOBILE & IN HOUSE LABORATORIES

Client:	Mevatec Corporation P.O. Box 399 White Sands, NM 88002-0399	Date Sampled: Date Received: Job Number:	12/12/01 12/12/01 M4-326

Project: HWSF Evaporation Tank

CASE NARRATIVE

The following information applies to samples which were received for analysis by Centrum Analytical Mobile Environmental Laboratory Number Four (MEL #4) on: 12/12/01

The samples were received at the project site intact and were analyzed immediately.

Unless otherwise noted below, the Quality Control acceptance criteria were met for all samples for every analysis requested. The date of issue for this report is 01/03/02.

Report approved by:

Tom Wilson
Laboratory Director

Rodolfo Vergara, Jr.
Quality Assurance Manager

ELAP # 2419

DL : Detection Limit -- The lowest level at which the compound can reliably be detected under normal laboratory conditions.
ND : Not Detected -- The compound was analyzed for but was not found to be present at or above the detection limit.
NA : Not Analyzed -- Per client request, this analyte was not on the list of compounds to be analyzed for.

909•779•0310 OR 800•798•9336 fax 909•779•0344
www.centrum-labs.com 1401 Research Park Drive, Suite 100, Riverside, CA 92507

Centrum Analytical Laboratories, Inc.

Volatile Organics - GCMS

Client:	Mevatec Corporation	Date Sampled:	12/12/01
Project:	HWSF Evaporation Tank	Date Received:	12/12/01
Job No.:	M4-326	Date Analyzed:	12/12/01
Matrix:	Vapor	Batch Number:	M48260V577
Analyst:	MBH		

	Sample ID:	Blank	Amb. Blk.	SG01-10'	SG07-10'	SG13-10'	SG19-10'
Compounds	**DL**	µg/L of air	µg/L of air	µg/L of air	µg/L of air	µg/L of air	µg/L of air
Acetone	50	ND	ND	ND	ND	ND	ND
t-Amyl-methyl ether (TAME)	10	ND	ND	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND	ND	ND
Bromobenzene	1.0	ND	ND	ND	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1.0	ND	ND	ND	ND	ND	ND
Bromoform	1.0	ND	ND	ND	ND	ND	ND
Bromomethane	1.0	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	50	ND	ND	ND	ND	ND	ND
t-Butyl alcohol (TBA)	10	ND	ND	ND	ND	ND	ND
n-Butylbenzene	1.0	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	1.0	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	1.0	ND	ND	ND	ND	ND	ND
Carbon disulfide	10	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1.0	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.0	ND	ND	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND	ND	ND
Chloromethane	5.0	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	1.0	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	1.0	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1.0	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	1.0	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	1.0	ND	ND	ND	ND	ND	ND
Dibromomethane	1.0	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	1.0	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1.0	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1.0	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	1.0	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	2.0	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	1.0	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND	ND

Centrum Analytical Laboratories, Inc.

Volatile Organics - GCMS

Client:	Mevatec Corporation	Date Sampled:	12/12/01
Project:	HWSF Evaporation Tank	Date Received:	12/12/01
Job No.:	M4-326	Date Analyzed:	12/12/01
Matrix:	Vapor	Batch Number:	M48260V577
Analyst:	MBH		

	Sample ID:	Blank	Amb. Blk.	SG01-10'	SG07-10'	SG13-10'	SG19-10'
Compounds	**DL**	µg/L of air	µg/L of air	µg/L of air	µg/L of air	µg/L of air	µg/L of air
Ethylbenzene	1.0	ND	ND	ND	ND	ND	ND
Ethyl-t-butyl ether (ETBE)	10	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	1.0	ND	ND	ND	ND	ND	ND
2-Hexanone	10	ND	ND	ND	ND	ND	ND
Isopropylbenzene	1.0	ND	ND	ND	ND	ND	ND
Diisopropyl ether (DIPE)	10	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	1.0	ND	ND	ND	ND	ND	ND
Methylene chloride	20	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	10	ND	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MtBE)	2.0	ND	ND	ND	ND	ND	ND
Napthalene	2.0	ND	ND	ND	ND	ND	ND
n-Propylbenzene	1.0	ND	ND	ND	ND	ND	ND
Styrene	1.0	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND	ND	ND
Toluene	1.0	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND	ND	ND
Trichloroethene	1.0	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	1.0	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND	ND	ND
Trichlorotrifluoroethane	5.0	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	1.0	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	1.0	ND	ND	ND	ND	ND	ND
Vinyl chloride	1.0	ND	ND	ND	ND	ND	ND
m,p -Xylenes	2.0	ND	ND	ND	ND	ND	ND
o -Xylene	1.0	ND	ND	ND	ND	ND	ND

Surrogates (% recovery) Limits: 70 - 130

Sample ID:	Blank	Amb. Blk.	SG01-10'	SG07-10'	SG13-10'	SG19-10'
Dibromofluoromethane	100	101	98	99	101	101
Toluene-d8	99	99	102	102	99	100
Bromofluorobenzene	100	100	102	99	99	99

Centrum Analytical Laboratories, Inc.

Volatile Organics - GCMS

Client:	Mevatec Corporation	Date Sampled:	12/12/01
Project:	HWSF Evaporation Tank	Date Received:	12/12/01
Job No.:	M4-326	Date Analyzed:	12/12/01
Matrix:	Vapor	Batch Number:	M48260V577
Analyst:	MBH		

	Sample ID:	SG02-10'	SG08-10'	SG09-10'	SG10-10'	SG11-10'	SG12-10'
Compounds	**DL**	µg/L of air	µg/L of air	µg/L of air	µg/L of air	µg/L of air	µg/L of air
Acetone	50	ND	ND	ND	ND	ND	ND
t-Amyl-methyl ether (TAME)	10	ND	ND	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND	ND	ND
Bromobenzene	1.0	ND	ND	ND	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1.0	ND	ND	ND	ND	ND	ND
Bromoform	1.0	ND	ND	ND	ND	ND	ND
Bromomethane	1.0	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	50	ND	ND	ND	ND	ND	ND
t-Butyl alcohol (TBA)	10	ND	ND	ND	ND	ND	ND
n-Butylbenzene	1.0	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	1.0	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	1.0	ND	ND	ND	ND	ND	ND
Carbon disulfide	10	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1.0	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.0	ND	ND	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND	ND	ND
Chloromethane	5.0	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	1.0	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	1.0	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1.0	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	1.0	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	1.0	ND	ND	ND	ND	ND	ND
Dibromomethane	1.0	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	1.0	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1.0	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1.0	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	1.0	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	2.0	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	1.0	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	1.0	ND	ND	ND	ND	ND	ND

Centrum Analytical Laboratories, Inc.

Volatile Organics - GCMS

Client:	Mevatec Corporation	Date Sampled:	12/12/01
Project:	HWSF Evaporation Tank	Date Received:	12/12/01
Job No.:	M4-326	Date Analyzed:	12/12/01
Matrix:	Vapor	Batch Number:	M48260V577
Analyst:	MBH		

	Sample ID:	SG02-10'	SG08-10'	SG09-10'	SG10-10'	SG11-10'	SG12-10'
Compounds	**DL**	µg/L of air	µg/L of air	µg/L of air	µg/L of air	µg/L of air	µg/L of air
Ethylbenzene	1.0	ND	ND	ND	ND	ND	ND
Ethyl-t-butyl ether (ETBE)	10	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	1.0	ND	ND	ND	ND	ND	ND
2-Hexanone	10	ND	ND	ND	ND	ND	ND
Isopropylbenzene	1.0	ND	ND	ND	ND	ND	ND
Diisopropyl ether (DIPE)	10	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	1.0	ND	ND	ND	ND	ND	ND
Methylene chloride	20	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	10	ND	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MtBE)	2.0	ND	ND	ND	ND	ND	ND
Napthalene	2.0	ND	ND	ND	ND	ND	ND
n-Propylbenzene	1.0	ND	ND	ND	ND	ND	ND
Styrene	1.0	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND	ND	ND
Toluene	1.0	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.0	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND	ND	ND
Trichloroethene	1.0	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	1.0	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND	ND	ND
Trichlorotrifluoroethane	5.0	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	1.0	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	1.0	ND	ND	ND	ND	ND	ND
Vinyl chloride	1.0	ND	ND	ND	ND	ND	ND
m,p -Xylenes	2.0	ND	ND	ND	ND	ND	ND
o -Xylene	1.0	ND	ND	ND	ND	ND	ND

Surrogates (% recovery) Limits: 70 - 130

Sample ID:	SG02-10'	SG08-10'	SG09-10'	SG10-10'	SG11-10'	SG12-10'
Dibromofluoromethane	99	100	100	100	102	99
Toluene-d8	100	99	102	102	98	102
Bromofluorobenzene	100	99	102	99	99	99

Centrum Analytical Laboratories, Inc.

Volatile Organics - GCMS

Client:	Mevatec Corporation	Date Sampled:	12/12/01
Project:	HWSF Evaporation Tank	Date Received:	12/12/01
Job No.:	M4-326	Date Analyzed:	12/12/01
Matrix:	Vapor	Batch Number:	M48260V577
Analyst:	MBH		

	Sample ID:	SG14-10'	SG15-10'	SG16-10'
Compounds	**DL**	µg/L of air	µg/L of air	µg/L of air
Acetone	50	ND	ND	ND
t-Amyl-methyl ether (TAME)	10	ND	ND	ND
Benzene	1.0	ND	ND	ND
Bromobenzene	1.0	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND
Bromodichloromethane	1.0	ND	ND	ND
Bromoform	1.0	ND	ND	ND
Bromomethane	1.0	ND	ND	ND
2-Butanone (MEK)	50	ND	ND	ND
t-Butyl alcohol (TBA)	10	ND	ND	ND
n-Butylbenzene	1.0	ND	ND	ND
sec-Butylbenzene	1.0	ND	ND	ND
tert-Butylbenzene	1.0	ND	ND	ND
Carbon disulfide	10	ND	ND	ND
Carbon tetrachloride	1.0	ND	ND	ND
Chlorobenzene	1.0	ND	ND	ND
Chloroethane	1.0	ND	ND	ND
Chloroform	1.0	ND	ND	ND
Chloromethane	5.0	ND	ND	ND
2-Chlorotoluene	1.0	ND	ND	ND
4-Chlorotoluene	1.0	ND	ND	ND
Dibromochloromethane	1.0	ND	ND	ND
1,2-Dibromoethane	1.0	ND	ND	ND
1,2-Dibromo-3-chloropropane	1.0	ND	ND	ND
Dibromomethane	1.0	ND	ND	ND
1,2-Dichlorobenzene	1.0	ND	ND	ND
1,3-Dichlorobenzene	1.0	ND	ND	ND
1,4-Dichlorobenzene	1.0	ND	ND	ND
Dichlorodifluoromethane	1.0	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND
1,2-Dichloroethane	1.0	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND
1,2-Dichloropropane	1.0	ND	ND	ND
1,3-Dichloropropane	1.0	ND	ND	ND
2,2-Dichloropropane	2.0	ND	ND	ND
1,1-Dichloropropene	1.0	ND	ND	ND
cis-1,3-Dichloropropene	1.0	ND	ND	ND
trans-1,3-Dichloropropene	1.0	ND	ND	ND

Centrum Analytical Laboratories, Inc.

Volatile Organics - GCMS

Client:	Mevatec Corporation	Date Sampled:	12/12/01
Project:	HWSF Evaporation Tank	Date Received:	12/12/01
Job No.:	M4-326	Date Analyzed:	12/12/01
Matrix:	Vapor	Batch Number:	M48260V577
Analyst:	MBH		

	Sample ID:	SG14-10'	SG15-10'	SG16-10'
Compounds	**DL**	µg/L of air	µg/L of air	µg/L of air
Ethylbenzene	1.0	ND	ND	ND
Ethyl-t-butyl ether (ETBE)	10	ND	ND	ND
Hexachlorobutadiene	1.0	ND	ND	ND
2-Hexanone	10	ND	ND	ND
Isopropylbenzene	1.0	ND	ND	ND
Diisopropyl ether (DIPE)	10	ND	ND	ND
p-Isopropyltoluene	1.0	ND	ND	ND
Methylene chloride	20	ND	ND	ND
4-Methyl-2-pentanone	10	ND	ND	ND
Methyl-tert-butyl ether (MtBE)	2.0	ND	ND	ND
Napthalene	2.0	ND	ND	ND
n-Propylbenzene	1.0	ND	ND	ND
Styrene	1.0	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND
Toluene	1.0	ND	ND	ND
1,2,3-Trichlorobenzene	1.0	ND	ND	ND
1,2,4-Trichlorobenzene	1.0	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	ND
1,1,2-Trichloroethane	1.0	ND	ND	ND
Trichloroethene	1.0	ND	ND	ND
1,2,3-Trichloropropane	1.0	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND
Trichlorotrifluoroethane	5.0	ND	ND	ND
1,2,4-Trimethylbenzene	1.0	ND	ND	ND
1,3,5-Trimethylbenzene	1.0	ND	ND	ND
Vinyl chloride	1.0	ND	ND	ND
m,p -Xylenes	2.0	ND	ND	ND
o -Xylene	1.0	ND	ND	ND

Surrogates (% recovery) Limits: 70 - 130

Sample ID:	SG14-10'	SG15-10'	SG16-10'
Dibromofluoromethane	99	98	102
Toluene-d8	101	103	100
Bromofluorobenzene	100	100	101

Centrum Analytical Laboratories, Inc.

QC Sample Report - GCMS

Matrix: Vapor
Batch: M48260V577

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration ug/L	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
1,1-Dichloroethene	50	**95**	59 - 172	**Pass**
Benzene	50	**87**	66 - 142	**Pass**
Trichloroethene	50	**89**	71 - 137	**Pass**
Toluene	50	**89**	59 - 139	**Pass**
Chlorobenzene	50	**88**	60 - 133	**Pass**

Analytical Notes:

Batch Precision Results

Duplicates: Laboratory Control Sample

Analyte	Sample Recovery ug/L	Duplicate Recovery ug/L	Relative Percent Difference (RPD)	Upper Control Limit RPD	Pass/Fail
1,1-Dichloroethene	47.7	55.9	**16%**	22%	**Pass**
Benzene	43.8	53.7	**20%**	21%	**Pass**
Trichloroethene	44.7	53.7	**18%**	24%	**Pass**
Toluene	44.5	53.8	**19%**	21%	**Pass**
Chlorobenzene	44.4	53.1	**18%**	21%	**Pass**

Analytical Notes:

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive, Suite 100
Riverside, CA 92507
Voice: 909.779.0310 ● 800.798.9336
Fax: 909.779.0344

3299 Hill Street, Suite 305
Signal Hill, CA 90806
Voice: 562.498.7005
Fax: 562.498.8617

www.centrum-labs.com lab@centrum-labs.com

Chain of Custody Record

Centrum Job # M4-326

Project No: 800-A9

Project Name: HWSF Evaporation Tank

Project Manager: Greg Watterson

Phone: 505.678.0263 Fax: 6096

Client Name: (Report and Billing) Mevotec Corp.

Address: (Report and Billing) PO Box 399 White Sands NM 88002-0399

Please Circle Analyses Requested

Turn-Around Time
- ☐ 24 Hr. RUSH*
- ☐ 48 Hr. RUSH*
- ☒ Normal TAT

*Requires PRIOR approval, additional charges apply

Requested due date: _____

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MtBE Only	418.1 (TRPH), 413.2, 1664		GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524.2	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB		Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr		Remarks/Special Instructions
11	S614-10	12/12/1	1540	Vapor		125cc Glass Bottle							X									
12	S615-10	↓	1602	↓		↓							X									
13	S616-10	↓	1632	↓		↓							X									

1) Relinquished by: (~~Sampler's Signature~~) X [signature] Date: Time:

2) Received by: [signature] Date: 12/12/1 Time: 1635

3) Relinquished by: Date: Time:

4) Received by: Date: Time:

5) Relinquished by: Date: Time:

6) Received for Laboratory by: Date: Time:

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

To be completed by Laboratory personnel:
Samples chilled? ☐ Yes ☐ No ☒ From Field
Custody seals? ☐ Yes ☒ No
All sample containers intact? ☒ Yes ☐ No
☐ Courier ☐ UPS/Fed Ex ☒ Hand carried

Sample Disposal
- ☐ Client will pick up
- ☐ Return to client
- ☐ Lab disposal

Laboratory Notes:

Sample Locator No.

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive, Suite 100
Riverside, CA 92507
Voice: 909.779.0310 ● 800.798.9336
Fax: 909.779.0344

3299 Hill Street, Suite 305
Signal Hill, CA 90806
Voice: 562.498.7005
Fax: 562.498.8617

www.centrum-labs.com lab@centrum-labs.com

Chain of Custody Record

Centrum Job # M4-326

Please Circle Analyses Requested

Project No:	Project Name:
800-A9	HWSF Evaporation Tank

Project Manager:	Phone:	Fax:
Greg Watterson	505.678.0263	6096

Client Name: (Report and Billing)	Address: (Report and Billing)
MEVatec Corp	PO Box 399 White Sands, NM 88002-0399

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MtBE Only	418.1 (TRPH), 413.2, 1664		GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524.2	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB		Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr		Remarks/Special Instructions
1	S601-10'	12/12/1	~~950~~ 1001	Vapor		125cc Glass Bulb							X									
2	S607-10'		1025										X									
3	S613-10'		1045										X									
4	S619-10'		1115										X									
5	S602-10		1150										X									
6	S608-10'		1217										X									
7	S609-10		1355										X									
8	S610-10'		1420										X									
9	S611-10'		1450										X									
10	S612-10'		1510										X									

	Date:	Time:		Date:	Time:
1) Relinquished by: (Sampler's Signature)			3) Relinquished by:		
2) Received by:	12/12/1	1635	4) Received by:		
			5) Relinquished by:		
			6) Received for Laboratory by:		

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

To be completed by Laboratory personnel:
Samples chilled? ☐ Yes ☐ No ☒ From Field
Custody seals? ☐ Yes ☒ No
All sample containers intact? ☒ Yes ☐ No
☐ Courier ☐ UPS/Fed Ex ☒ Hand carried

Turn-Around Time
☐ 24 Hr. RUSH*
☐ 48 Hr. RUSH*
☒ Normal TAT
*Requires PRIOR approval, additional charges apply
Requested due date: _____

Sample Disposal
☐ Client will pick up
☐ Return to client
☐ Lab disposal

Laboratory Notes:

Sample Locator No.

APPENDIX I

Analytical Data – PDP Analytical Services

PDP
Analytical Services

1680 Lake Front Circle, Suite B
The Woodlands, Texas 77380
Phone (281) 363-2233
Fax (281) 298-5784
e-mail pdp@pdpanalytical.com

January 5, 2002

Mr. Greg Watterson
MEVATEC Corporation
P.O. Box 399
Bldg. 126
WSMR, NM 88002

Episode: 7402
Project ID: 800-A9

Dear Mr. Watterson:

Enclosed are the analytical results for the samples received in our laboratory on December 15th, 2001. The samples were analyzed for the parameters indicated on the Chain-of-Custody (COC).

Please note that if a sample concentration exceeds the linear range of the detector, the value is flagged with the appropriate "E", "J" qualifiers to indicate an estimated concentration. A subsequent dilution is performed on the sample and both the original analysis and the dilution(s) are provided for your review.

It should also be noted that, upon occasion, the surrogate recoveries for the samples may be outside acceptance limits due to the nature of the sample. So all the samples were reanalyzed for nonconformances. If the Laboratory Control Spike (LCS) recovery meets acceptance criteria, then the analytical system is deemed to be in control and the data is accepted.

Please be advised that unused portions of your samples, sample extracts and digestates will be stored for 30 days from the date of this report. Unless prior arrangements were made, at the end of this period your samples will either be disposed of, or returned to you if your samples were determined to be hazardous.

Should you have any questions or need assistance with this report, please feel free to call me, at (281) 363-2233.

Sincerely,

Dr. Siva S Palchuru, Ph.D.
Laboratory Director

Enclosures
cc: Episode File – 7402

CHAIN OF CUSTODY

PO# 01P-2055

MEVATEC CORPORATION
P.O. Box 399
Bldg. 126
WSMR, NM 88002
(505) 678-0263

CHAIN OF CUSTODY RECORD

PROJECT NO.: 800A9
PROJECT NAME: HWSF Evaporation Tank
SAMPLER'S SIGNATURE: [signature]

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	VOC (8260)	pH (EPA 150.1)	TDS (EPA 160.1)	Spec. Conductance (EPA 120.1)				7402.			REMARKS
12/13/01	1515	HWSF-TW04-1201	Aqueous		4	X	X	X	X				001			Groundwater Sample
12/13/01	1515	HWSF-TW04-1201-TB	Aqueous		3	X							002			Trip Blank
12/13/01	1535	HWSF-TapWater-1201	Aqueous		3	X							003			TapWater Sample
12/13/01	1545	HWSF-TW04-1201-RB	Aqueous		3	X							004			Equip. Rinsate Blank
12/14/01	1122	HWSF-TW02-1201	Aqueous		4	X	X	X	X				005			
		Temperature Blank			1											Temp. Blank

PROJECT INFORMATION			1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER: William Little	SAMPLES RECEIVED		(PRINTED NAME) Greg Watterson	(PRINTED NAME)	(PRINTED NAME) SIVA PALCHOD
SHIPPING ID. NO.	TOTAL NO. OF CONTAINERS		RECEIVED BY:	RECEIVED BY:	(COMPANY) PDP Analytical
VIA: Fed Ex	CHAIN OF CUSTODY SEALS		(TIME / DATE)	(TIME / DATE)	(TIME / DATE) 12/15/01 1000 Am
	GOOD CONDITION/CHILLED		SPECIAL INSTRUCTIONS / COMMENTS:		
	CONFORMS TO RECORD				

PLEASE USE BALL POINT PEN

DISTRIBUTION: WHITE - PROJECT FILES; YELLOW - LAB; PINK - FIELD COPY

PDP ANALYTICAL SERVICES 1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

SAMPLE LOG-IN CHECKLIST/DISCREPANCY REPORT

FID: SLCDR01.96

EPISODE #: 7402 DATE/ REC'D: 12/15/01 TIME

CLIENT NAME: Mevatec

PROJECT NAME: HWSF Evaporation

PROJECT NUMBER: 800A9

5 AQUEOUS, # None SOIL SAMPLES

COURIER/AIRBILL # 7917 3254 8305

TEMP & ID: 1)____ #____

2)____ #____

3)____ #____

4)____ #____

5)____ #____

6)____ #____

SAMPLE CONTAINER SEALS: present (absent) intact broken

COOLER CUSTODY SEALS: (present) absent intact broken NAME & DATE:

HOW MANY AND WHERE 2 on top

	YES
Were samples screened for radioactivity?	✓
Chain-of-custody present?	✓
Custody documents: Sealed in a plastic bag?	✓
Signed and dated by field personnel	✓
Filled out properly in indelable ink?	✓
Signed and dated by log-in personnel?	✓
Container Condition: Each containers sealed in a separate plastic bag?	✓
Labels complete (ID, date, time, signature, preservative, etc.)?	✓
Labels agree with chain-of-custody?	✓
Received without leakage or breakage? If no, list :	✓
Correct quantity indicated on chain-of-custody?	✓
Sample Integrity: Correct containers used for the test indicated? If no, list:	✓
Correct preservatives added to the samples? If no, list:	✓
Sufficient sample amount sent for the tests indicated? If no, list	✓
VOA vials filled completely? If no, list:	✓
Aqueous volatiles samples preserved? If no, list:	✓

Descrepancy Report:

Discepancies to be discussed with the client? NA

Project Manager's recommendations?

Who was notified? By whom? Date:

Client's comments:

Corrective actions carried out?

COMMENTS:

For those short holding time and fast turn-around parameters, has a Rush Notification sheet been issued to the lab?

LOG-IN BY: [signature] DATE: 12/15/01

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands TX 77380
Sample Log-In Report

Logged By:

Report Date: 1/5/2002 14:06:28

Client Name: MEVATEC CORPORATION
Client Project Name: HWSF EVAPORATION TANK
ClientProject #: 800A9
P.O. No.: 01P-2055
Courier/No.:

Lab Project ID: Q1702
Date Logged: 12/16/01
Date Received: 12/15/01
Time Received: 10:30

Lab Sample ID	Client Sample ID	No. Cont.	Sample Matrix	Date Sampled	Time Sampled	Chain Of Custody No.	Date Due	Remarks
7402.001	HWSF-TW04-1201	4	WATER	12/13/01	15:15			
	Tests Required							
	- CONDUCTIVITY_120.1						01/05/02	
	- PH_150.1						01/05/02	
	- TDS_160.1						01/05/02	
	- VOA8260B						01/05/02	
7402.002	HWSF-TW04-1201-TB	3	WATER	12/13/01	15:15			
	Tests Required							
	- VOA8260B						01/05/02	
7402.003	HWSF-Tapwater-1201	3	WATER	12/13/01	15:35			
	Tests Required							
	- VOA8260B						01/05/02	
7402.004	HWSF-TW04-1201-RB	3	WATER	12/13/01	15:45			
	Tests Required							
	- VOA8260B						01/05/02	
7402.005	HWSF-TW02-1201	4	WATER	12/14/01	11:22			
	Tests Required							
	- CONDUCTIVITY_120.1						01/05/02	
	- PH_150.1						01/05/02	
	- TDS_160.1						01/05/02	
	- VOA8260B						01/05/02	

Instructions To Lab:

Lab Approval

Client Approval

0000004

CONDUCTIVITY

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

SPECIFIC CONDUCTANCE

CLIENT NAME : MEVATEC CORPORATION
PROJECT NAME : HWSF EVAPORATION TANK
PROJECT NUMBER : 800A9
PRINTED ON : 12/20/2001 12:17

PARAMETER: Conductivity

CLIENT SAMPLE ID	HWSF-TW04-1201	HWSF-TW02-1201	HWSF-TW03-1201DUP	LAB CONTROL SAMP
SAMPLE ID	7402.001	7402.005	7398.001DUP1	LCSW 30
SAMPLE MATRIX	WATER	WATER	WATER	
DATE SAMPLED	12/13/01	12/14/01	12/12/01	
DATE RECEIVED	12/15/01	12/15/01	12/14/01	
METHOD REFERENCE	EPA-120.1	EPA-120.1	EPA-120.1	EPA-120.1
QUANTITATION LIMIT	1	1	1	1
RESULTS	31000	26300	27000	100
UNITS	US/CM	US/CM	US/CM	UMHO/CM
QUALIFIER				
ANALYST	HT	HT	HT	HT
CONTAINER ID				
DATE ANALYZED	12/17/01	12/17/01	12/17/01	12/17/01
TIME ANALYZED	09:00	09:00	09:00	09:00
QC BATCH ID	PBW 30	PBW 30	PBW 30	PBW 30
PRE-PREP BLANK ID				
PREP BLANK ID	PBW 30	PBW 30	PBW 30	PBW 30
LCS ID	LCSW 30	LCSW 30	LCSW 30	
LCSD ID				
DUP ID	7398.001DUP1	7398.001DUP1	7398.001DUP1	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

SPECIFIC CONDUCTANCE

CLIENT NAME : MEVATEC CORPORATION
PROJECT NAME : HWSF EVAPORATION TANK
PROJECT NUMBER : 800A9
PRINTED ON : 12/20/2001 12:17

PARAMETER: Conductivity

CLIENT SAMPLE ID	**PREP BLANK**			
SAMPLE ID	**PBW 30**			
SAMPLE MATRIX				
DATE SAMPLED				
DATE RECEIVED				
METHOD REFERENCE	EPA-120.1			
QUANTITATION LIMIT	1			
RESULTS	ND			
UNITS	US/CM			
QUALIFIER				
ANALYST	HT			
CONTAINER ID				
DATE ANALYZED	12/17/01			
TIME ANALYZED	09:00			
QC BATCH ID	PBW 30			
PRE-PREP BLANK ID				
PREP BLANK ID	PBW 30			
LCS ID				
LCSD ID				
DUP ID				

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

DUPLICATE SUMMARY REPORT

SPECIFIC CONDUCTANCE

CLIENT NAME	: MEVATEC CORPORATION	DATE RECEIVED	: 12/14/01
PROJECT NAME	: HWSF EVAPORATION TANK	PRINTED ON	: 12/20/2001
PROJECT NUMBER	: 800A9		
SAMPLE MATRIX	: WATER	METHOD REFERENCE	: EPA-120.1
SAMPLE		SAMPLE DUPLICATE	
SAMPLE ID	:	DUP SAMPLE ID	: 7398.001DUP1
CLIENT SAMPLE ID	: HWSF-TW03-1201	CLIENT SAMPLE ID	: HWSF-TW03-1201DUP
DATE ANALYZED	: 12/17/01	DATE ANALYZED	: 12/17/01
GC FILE ID	:	INSTRUMENT FILE	:

COMPOUND	SAMPLE CONC.	DUP. CONC.	UNITS	RPD	RPD LIMITS
Conductivity	27200	27000	US/CM	0.7	20

* Indicate values outside of QC limits

RPD : 0 out of 1 outside limits

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LCS/LCSD SUMMARY REPORT

SPECIFIC CONDUCTANCE

CLIENT NAME :
PROJECT NAME :
PROJECT NUMBER :

DATE RECEIVED :
PRINTED ON : 12/20/2001 12:17

SAMPLE MATRIX : LIQUID

METHOD REFERENCE : EPA-120.1

LAB CONTROL SAMPLE

LCS SAMPLE ID : LCSW 30
CLIENT SAMPLE ID :
DATE ANALYZED : 12/17/01
INSTRUMENT FILE :

LAB CONTROL SAMPLE DUPLICATE

LCSD SAMPLE ID :
CLIENT SAMPLE ID :
DATE ANALYZED :
INSTRUMENT FILE :

PARAMETER	UNITS	LCS TRUE VALUE	LCSD TRUE VALUE	LCS FOUND VALUE	LCSD FOUND VALUE	LCS RECOVER (%)	LCSD RECOVERY (%)	RPD	RPD LIMIT	QC LIMIT REC.
Conductivity	UMHO/	100		100		100			20	80 - 120

* Indicate values outside of QC limits

RPD : 0 out of 0 outside limits
Spike Recovery : 0 out of 1 outside limits

pH

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

pH

CLIENT NAME : MEVATEC CORPORATION
PROJECT NAME : HWSF EVAPORATION TANK
PROJECT NUMBER : 800A9
PRINTED ON : 12/31/2001 15:29

PARAMETER: pH

CLIENT SAMPLE ID	HWSF-TW04-1201	HWSF-TW02-1201	HWSF-TW03-1201DUP	LAB CONTROL SAMP
SAMPLE ID	7402.001	7402.005	7398.001DUP1	LCSW 138
SAMPLE MATRIX	WATER	WATER	WATER	
DATE SAMPLED	12/13/01	12/14/01	12/12/01	
DATE RECEIVED	12/15/01	12/15/01	12/14/01	
METHOD REFERENCE	EPA-150.1	EPA-150.1	EPA-150.1	EPA-150.1
QUANTITATION LIMIT	1	1	1	1
RESULTS	7.13	6.92	6.88	8.93
UNITS	S.U.	S.U.	S.U.	S.U.
QUALIFIER				
ANALYST	HT	HT	HT	HT
CONTAINER ID				
DATE ANALYZED	12/17/01	12/17/01	12/17/01	12/17/01
QC BATCH ID	PBW 141	PBW 141	PBW 141	PBW 141
PRE-PREP BLANK ID				
PREP BLANK ID	PBW 141	PBW 141	PBW 141	PBW 141
LCS ID	LCSW 138	LCSW 138	LCSW 138	
LCSD ID				
DUP ID	7398.001DUP1	7398.001DUP1	7398.001DUP1	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

pH

CLIENT NAME	:	MEVATEC CORPORATION	PROJECT NUMBER	:	800A9
PROJECT NAME	:	HWSF EVAPORATION TANK	PRINTED ON	:	12/31/2001 15:29

PARAMETER: pH

CLIENT SAMPLE ID	**PREP BLANK**			
SAMPLE ID	**PBW 141**			
SAMPLE MATRIX				
DATE SAMPLED				
DATE RECEIVED				
METHOD REFERENCE	EPA-150.1			
QUANTITATION LIMIT	1			
RESULTS	6.50			
UNITS	S.U.			
QUALIFIER				
ANALYST	HT			
CONTAINER ID				
DATE ANALYZED	12/17/01			
QC BATCH ID	PBW 141			
PRE-PREP BLANK ID				
PREP BLANK ID	PBW 141			
LCS ID				
LCSD ID				
DUP ID				

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

DUPLICATE SUMMARY REPORT

pH

CLIENT NAME	: MEVATEC CORPORATION	DATE RECEIVED	: 12/14/01
PROJECT NAME	: HWSF EVAPORATION TANK	PRINTED ON	: 12/31/2001
PROJECT NUMBER	: 800A9		
SAMPLE MATRIX	: WATER	METHOD REFERENCE	: EPA-150.1
SAMPLE		SAMPLE DUPLICATE	
SAMPLE ID	:	DUP SAMPLE ID	: 7398.001DUP1
CLIENT SAMPLE ID	: HWSF-TW03-1201	CLIENT SAMPLE ID	: HWSF-TW03-1201DUP
DATE ANALYZED	: 12/17/01	DATE ANALYZED	: 12/17/01
GC FILE ID	:	INSTRUMENT FILE	:

COMPOUND	SAMPLE CONC.	DUP. CONC.	UNITS	RPD	RPD LIMITS
pH	6.87	6.88	S.U.	0.1	20

* Indicate values outside of QC limits

RPD : 0 out of 1 outside limits

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LCS/LCSD SUMMARY REPORT

pH

CLIENT NAME :
PROJECT NAME :
PROJECT NUMBER :

DATE RECEIVED :
PRINTED ON : 12/31/2001 15:29

SAMPLE MATRIX : LIQUID

METHOD REFERENCE : EPA-150.1

LAB CONTROL SAMPLE

LCS SAMPLE ID : LCSW 138
CLIENT SAMPLE ID :
DATE ANALYZED : 12/17/01
INSTRUMENT FILE :

LAB CONTROL SAMPLE DUPLICATE

LCSD SAMPLE ID :
CLIENT SAMPLE ID :
DATE ANALYZED :
INSTRUMENT FILE :

PARAMETER	UNITS	LCS TRUE VALUE	LCSD TRUE VALUE	LCS FOUND VALUE	LCSD FOUND VALUE	LCS RECOVER (%)	LCSD RECOVERY (%)	RPD	RPD LIMIT	QC LIMIT REC.
pH	S.U.	9.00		8.93		99			0	98 - 102

* Indicate values outside of QC limits

RPD : 0 out of 0 outside limits
Spike Recovery : 0 out of 1 outside limits

TOTAL DISSOLVED SOLIDS(TDS)

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1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

TOTAL DISSOLVED SOLIDS (TDS)

CLIENT NAME : MEVATEC CORPORATION
PROJECT NAME : HWSF EVAPORATION TANK
PROJECT NUMBER : 800A9
PRINTED ON : 12/20/2001 12:16

PARAMETER: Total Dissolved Solids

CLIENT SAMPLE ID	HWSF-TW04-1201	HWSF-TW02-1201	HWSF-TW03-1201DUP	LAB CONTROL SAMP
SAMPLE ID	7402.001	7402.005	7398.001DUP1	LCSW 84
SAMPLE MATRIX	WATER	WATER	WATER	
DATE SAMPLED	12/13/01	12/14/01	12/12/01	
DATE RECEIVED	12/15/01	12/15/01	12/14/01	
METHOD REFERENCE	EPA-160.1	EPA-160.1	EPA-160.1	EPA-160.1
QUANTITATION LIMIT	10	10	10	10
RESULTS	18000	17000	18000	500
UNITS	MG/L	MG/L	MG/L	MG/L
QUALIFIER				
ANALYST	FC	FC	FC	FC
CONTAINER ID				
DATE ANALYZED	12/19/01	12/19/01	12/19/01	12/19/01
QC BATCH ID	PBW 84	PBW 84	PBW 84	PBW 84
PRE-PREP BLANK ID				
PREP BLANK ID	PBW 84	PBW 84	PBW 84	PBW 84
LCS ID	LCSW 84	LCSW 84	LCSW 84	
LCSD ID				
DUP ID	7398.001DUP1	7398.001DUP1	7398.001DUP1	

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LABORATORY REPORT

TOTAL DISSOLVED SOLIDS (TDS)

CLIENT NAME	:	MEVATEC CORPORATION	PROJECT NUMBER	:	800A9
PROJECT NAME	:	HWSF EVAPORATION TANK	PRINTED ON	:	12/20/2001 12:16

PARAMETER: Total Dissolved Solids

CLIENT SAMPLE ID	**PREP BLANK**			
SAMPLE ID	**PBW 84**			
SAMPLE MATRIX				
DATE SAMPLED				
DATE RECEIVED				
METHOD REFERENCE	EPA-160.1			
QUANTITATION LIMIT	10			
RESULTS	ND			
UNITS	MG/L			
QUALIFIER				
ANALYST	FC			
CONTAINER ID				
DATE ANALYZED	12/19/01			
QC BATCH ID	PBW 84			
PRE-PREP BLANK ID				
PREP BLANK ID	PBW 84			
LCS ID				
LCSD ID				
DUP ID				

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DUPLICATE SUMMARY REPORT

TOTAL DISSOLVED SOLIDS (TDS)

CLIENT NAME	: MEVATEC CORPORATION	DATE RECEIVED	: 12/14/01
PROJECT NAME	: HWSF EVAPORATION TANK	PRINTED ON	: 12/20/2001
PROJECT NUMBER	: 800A9		
SAMPLE MATRIX	: WATER	METHOD REFERENCE	: EPA-160.1
SAMPLE		SAMPLE DUPLICATE	
SAMPLE ID	:	DUP SAMPLE ID	: 7398.001DUP1
CLIENT SAMPLE ID	: HWSF-TW03-1201	CLIENT SAMPLE ID	: HWSF-TW03-1201DUP
DATE ANALYZED	: 12/19/01	DATE ANALYZED	: 12/19/01
GC FILE ID	:	INSTRUMENT FILE	:

COMPOUND	SAMPLE CONC.	DUP. CONC.	UNITS	RPD	RPD LIMITS
Total Dissolved Solids	18000	18000	MG/L	0.0	20

* Indicate values outside of QC limits

RPD : 0 out of 1 outside limits

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LCS/LCSD SUMMARY REPORT

TOTAL DISSOLVED SOLIDS (TDS)

CLIENT NAME :
PROJECT NAME :
PROJECT NUMBER :

DATE RECEIVED :
PRINTED ON : 12/20/2001 12:16

SAMPLE MATRIX : LIQUID
METHOD REFERENCE : EPA-160.1

LAB CONTROL SAMPLE
LCS SAMPLE ID : LCSW 84
CLIENT SAMPLE ID :
DATE ANALYZED : 12/19/01
INSTRUMENT FILE :

LAB CONTROL SAMPLE DUPLICATE
LCSD SAMPLE ID :
CLIENT SAMPLE ID :
DATE ANALYZED :
INSTRUMENT FILE :

PARAMETER	UNITS	LCS TRUE VALUE	LCSD TRUE VALUE	LCS FOUND VALUE	LCSD FOUND VALUE	LCS RECOVER (%)	LCSD RECOVERY (%)	RPD	RPD LIMIT	QC LIMIT REC.
Total Dissolved Solids	MG/L	500		500		100			20	80 - 120

* Indicate values outside of QC limits

RPD : 0 out of 0 outside limits
Spike Recovery : 0 out of 1 outside limits

VOA

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-TW04-1201
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7402.001
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/13/01	DATE RECEIVED	: 12/15/01
SAMPLE MATRIX	: WATER	PRINTED ON	: 1/4/2002 20:18

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 12/20/2001	DILUTION	: 1
INSTRUMENT FILE	: G5703.D	INSTRUMENT ID	: G-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 16:42

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,1-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1,2,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,2-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethene	1.0	UG/L	ND	UG/L	
1,1-Dichloropropene	1.0	UG/L	ND	UG/L	
1,2,3-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,3-Trichloropropane	1.0	UG/L	ND	UG/L	
1,2,4-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,4-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,2-Dibromo-3-chloropropane	1.0	UG/L	ND	UG/L	
1,2-Dibromoethane	1.0	UG/L	ND	UG/L	
1,2-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,2-Dichloroethane	1.0	UG/L	ND	UG/L	
1,2-Dichloropropane	1.0	UG/L	ND	UG/L	
1,3,5-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,3-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,3-Dichloropropane	1.0	UG/L	ND	UG/L	
1,4-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1-Chlorohexane	1.0	UG/L	ND	UG/L	
2,2-Dichloropropane	1.0	UG/L	ND	UG/L	
2-Butanone	5.0	UG/L	ND	UG/L	
2-Chloroethyl vinyl ether	2.0	UG/L	ND	UG/L	
2-Chlorotoluene	1.0	UG/L	ND	UG/L	
2-Hexanone	5.0	UG/L	ND	UG/L	
4-Chlorotoluene	1.0	UG/L	ND	UG/L	
4-Methyl-2-pentanone	5.0	UG/L	ND	UG/L	
Acetone	5.0	UG/L	ND	UG/L	
Acrolein	5.0	UG/L	ND	UG/L	
Acrylonitrile	1.0	UG/L	ND	UG/L	
Benzene	1.0	UG/L	ND	UG/L	
Bromobenzene	1.0	UG/L	ND	UG/L	
Bromochloromethane	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW04-1201
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7402.001
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/13/01	DATE RECEIVED :	12/15/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 20:18

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	ND	UG/L	
Bromoform	1.0	UG/L	ND	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	ND	UG/L	
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	ND	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	ND	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW04-1201
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7402.001
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/13/01	DATE RECEIVED :	12/15/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 20:18

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	47
Dibromofluoromethane	10 UG/L	56 - 153	75
Toluene-d8	10 UG/L	68 - 124	57
1,2-Dichloroethane-d4	10 UG/L	64 - 130	86

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK34 PREP BLANK ID :GVBLK34 LCS ID :GVLCS34

LCSD ID :GVLCS34D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-TW04-1201RA1
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7402.001RA1
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/13/01	DATE RECEIVED	: 12/15/01
SAMPLE MATRIX	: WATER	PRINTED ON	: 1/4/2002 20:18

ANALYST	: ESP	CONTAINER ID	:
DATE ANALYZED	: 12/26/2001	DILUTION	: 1
INSTRUMENT FILE	: G5742.D	INSTRUMENT ID	: G-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 18:38

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,1-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1,2,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,2-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethene	1.0	UG/L	ND	UG/L	
1,1-Dichloropropene	1.0	UG/L	ND	UG/L	
1,2,3-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,3-Trichloropropane	1.0	UG/L	ND	UG/L	
1,2,4-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,4-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,2-Dibromo-3-chloropropane	1.0	UG/L	ND	UG/L	
1,2-Dibromoethane	1.0	UG/L	ND	UG/L	
1,2-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,2-Dichloroethane	1.0	UG/L	ND	UG/L	
1,2-Dichloropropane	1.0	UG/L	ND	UG/L	
1,3,5-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,3-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,3-Dichloropropane	1.0	UG/L	ND	UG/L	
1,4-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1-Chlorohexane	1.0	UG/L	ND	UG/L	
2,2-Dichloropropane	1.0	UG/L	ND	UG/L	
2-Butanone	5.0	UG/L	ND	UG/L	
2-Chloroethyl vinyl ether	2.0	UG/L	ND	UG/L	
2-Chlorotoluene	1.0	UG/L	ND	UG/L	
2-Hexanone	5.0	UG/L	ND	UG/L	
4-Chlorotoluene	1.0	UG/L	ND	UG/L	
4-Methyl-2-pentanone	5.0	UG/L	ND	UG/L	
Acetone	5.0	UG/L	ND	UG/L	
Acrolein	5.0	UG/L	ND	UG/L	
Acrylonitrile	1.0	UG/L	ND	UG/L	
Benzene	1.0	UG/L	ND	UG/L	
Bromobenzene	1.0	UG/L	ND	UG/L	
Bromochloromethane	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW04-1201RA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7402.001RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/13/01	DATE RECEIVED :	12/15/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 20:18

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	ND	UG/L	
Bromoform	1.0	UG/L	ND	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	ND	UG/L	
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	ND	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	ND	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW04-1201RA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7402.001RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/13/01	DATE RECEIVED :	12/15/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 20:18

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	68
Dibromofluoromethane	10 UG/L	56 - 153	76
Toluene-d8	10 UG/L	68 - 124	68
1,2-Dichloroethane-d4	10 UG/L	64 - 130	81

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK36 PREP BLANK ID :GVBLK36 LCS ID :GVLCS36

LCSD ID :GVLCS36D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-TW04-1201-TB
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7402.002
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/13/01	DATE RECEIVED	: 12/15/01
SAMPLE MATRIX	: WATER	PRINTED ON	: 1/4/2002 20:18

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 12/20/2001	DILUTION	: 1
INSTRUMENT FILE	: G5704.D	INSTRUMENT ID	: G-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 17:12

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,1-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1,2,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,2-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethene	1.0	UG/L	ND	UG/L	
1,1-Dichloropropene	1.0	UG/L	ND	UG/L	
1,2,3-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,3-Trichloropropane	1.0	UG/L	ND	UG/L	
1,2,4-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,4-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,2-Dibromo-3-chloropropane	1.0	UG/L	ND	UG/L	
1,2-Dibromoethane	1.0	UG/L	ND	UG/L	
1,2-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,2-Dichloroethane	1.0	UG/L	ND	UG/L	
1,2-Dichloropropane	1.0	UG/L	ND	UG/L	
1,3,5-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,3-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,3-Dichloropropane	1.0	UG/L	ND	UG/L	
1,4-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1-Chlorohexane	1.0	UG/L	ND	UG/L	
2,2-Dichloropropane	1.0	UG/L	ND	UG/L	
2-Butanone	5.0	UG/L	ND	UG/L	
2-Chloroethyl vinyl ether	2.0	UG/L	ND	UG/L	
2-Chlorotoluene	1.0	UG/L	ND	UG/L	
2-Hexanone	5.0	UG/L	ND	UG/L	
4-Chlorotoluene	1.0	UG/L	ND	UG/L	
4-Methyl-2-pentanone	5.0	UG/L	ND	UG/L	
Acetone	5.0	UG/L	ND	UG/L	
Acrolein	5.0	UG/L	ND	UG/L	
Acrylonitrile	1.0	UG/L	ND	UG/L	
Benzene	1.0	UG/L	ND	UG/L	
Bromobenzene	1.0	UG/L	ND	UG/L	
Bromochloromethane	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW04-1201-TB
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7402.002
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/13/01	DATE RECEIVED :	12/15/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 20:18

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	ND	UG/L	
Bromoform	1.0	UG/L	ND	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	ND	UG/L	
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	ND	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	ND	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW04-1201-TB
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7402.002
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/13/01	DATE RECEIVED :	12/15/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 20:18

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	65
Dibromofluoromethane	10 UG/L	56 - 153	92
Toluene-d8	10 UG/L	68 - 124	74
1,2-Dichloroethane-d4	10 UG/L	64 - 130	107

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK34 PREP BLANK ID :GVBLK34 LCS ID :GVLCS34

LCSD ID :GVLCS34D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW04-1201-TBRA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7402.002RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/13/01	DATE RECEIVED :	12/15/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 20:18

ANALYST	: ESP	CONTAINER ID	:
DATE ANALYZED	: 12/26/2001	DILUTION	: 1
INSTRUMENT FILE	: G5743.D	INSTRUMENT ID	: G-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 19:08

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,1-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1,2,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,2-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethene	1.0	UG/L	ND	UG/L	
1,1-Dichloropropene	1.0	UG/L	ND	UG/L	
1,2,3-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,3-Trichloropropane	1.0	UG/L	ND	UG/L	
1,2,4-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,4-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,2-Dibromo-3-chloropropane	1.0	UG/L	ND	UG/L	
1,2-Dibromoethane	1.0	UG/L	ND	UG/L	
1,2-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,2-Dichloroethane	1.0	UG/L	ND	UG/L	
1,2-Dichloropropane	1.0	UG/L	ND	UG/L	
1,3,5-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,3-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,3-Dichloropropane	1.0	UG/L	ND	UG/L	
1,4-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1-Chlorohexane	1.0	UG/L	ND	UG/L	
2,2-Dichloropropane	1.0	UG/L	ND	UG/L	
2-Butanone	5.0	UG/L	ND	UG/L	
2-Chloroethyl vinyl ether	2.0	UG/L	ND	UG/L	
2-Chlorotoluene	1.0	UG/L	ND	UG/L	
2-Hexanone	5.0	UG/L	ND	UG/L	
4-Chlorotoluene	1.0	UG/L	ND	UG/L	
4-Methyl-2-pentanone	5.0	UG/L	ND	UG/L	
Acetone	5.0	UG/L	ND	UG/L	
Acrolein	5.0	UG/L	ND	UG/L	
Acrylonitrile	1.0	UG/L	ND	UG/L	
Benzene	1.0	UG/L	ND	UG/L	
Bromobenzene	1.0	UG/L	ND	UG/L	
Bromochloromethane	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW04-1201-TBRA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7402.002RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/13/01	DATE RECEIVED :	12/15/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 20:18

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	ND	UG/L	
Bromoform	1.0	UG/L	ND	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	ND	UG/L	
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	ND	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	ND	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW04-1201-TBRA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7402.002RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/13/01	DATE RECEIVED :	12/15/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 20:18

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	40
Dibromofluoromethane	10 UG/L	56 - 153	44
Toluene-d8	10 UG/L	68 - 124	32
1,2-Dichloroethane-d4	10 UG/L	64 - 130	46

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK36 PREP BLANK ID :GVBLK36 LCS ID :GVLCS36

LCSD ID :GVLCS36D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-Tapwater-1201
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7402.003
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/13/01	DATE RECEIVED	: 12/15/01
SAMPLE MATRIX	: WATER	PRINTED ON	: 1/4/2002 20:18

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 12/20/2001	DILUTION	: 1
INSTRUMENT FILE	: G5705.D	INSTRUMENT ID	: G-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 17:43

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,1-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1,2,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,2-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethene	1.0	UG/L	ND	UG/L	
1,1-Dichloropropene	1.0	UG/L	ND	UG/L	
1,2,3-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,3-Trichloropropane	1.0	UG/L	ND	UG/L	
1,2,4-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,4-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,2-Dibromo-3-chloropropane	1.0	UG/L	ND	UG/L	
1,2-Dibromoethane	1.0	UG/L	ND	UG/L	
1,2-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,2-Dichloroethane	1.0	UG/L	ND	UG/L	
1,2-Dichloropropane	1.0	UG/L	ND	UG/L	
1,3,5-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,3-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,3-Dichloropropane	1.0	UG/L	ND	UG/L	
1,4-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1-Chlorohexane	1.0	UG/L	ND	UG/L	
2,2-Dichloropropane	1.0	UG/L	ND	UG/L	
2-Butanone	5.0	UG/L	ND	UG/L	
2-Chloroethyl vinyl ether	2.0	UG/L	ND	UG/L	
2-Chlorotoluene	1.0	UG/L	ND	UG/L	
2-Hexanone	5.0	UG/L	ND	UG/L	
4-Chlorotoluene	1.0	UG/L	ND	UG/L	
4-Methyl-2-pentanone	5.0	UG/L	ND	UG/L	
Acetone	5.0	UG/L	ND	UG/L	
Acrolein	5.0	UG/L	ND	UG/L	
Acrylonitrile	1.0	UG/L	ND	UG/L	
Benzene	1.0	UG/L	ND	UG/L	
Bromobenzene	1.0	UG/L	ND	UG/L	
Bromochloromethane	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-Tapwater-1201
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7402.003
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/13/01	DATE RECEIVED :	12/15/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 20:18

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	1.5	UG/L	
Bromoform	1.0	UG/L	1.2	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	0.72	UG/L	J
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	1.8	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	ND	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-Tapwater-1201
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7402.003
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/13/01	DATE RECEIVED :	12/15/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 20:18

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	62
Dibromofluoromethane	10 UG/L	56 - 153	82
Toluene-d8	10 UG/L	68 - 124	
1,2-Dichloroethane-d4	10 UG/L	64 - 130	98

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK34 PREP BLANK ID :GVBLK34 LCS ID :GVLCS34

LCSD ID :GVLCS34D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-Tapwater-1201RA1
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7402.003RA1
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/13/01	DATE RECEIVED	: 12/15/01
SAMPLE MATRIX	: WATER	PRINTED ON	: 1/4/2002 20:18

ANALYST	: ESP	CONTAINER ID	:
DATE ANALYZED	: 12/26/2001	DILUTION	: 1
INSTRUMENT FILE	: G5744.D	INSTRUMENT ID	: G-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 19:38

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,1-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1,2,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,2-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethene	1.0	UG/L	ND	UG/L	
1,1-Dichloropropene	1.0	UG/L	ND	UG/L	
1,2,3-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,3-Trichloropropane	1.0	UG/L	ND	UG/L	
1,2,4-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,4-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,2-Dibromo-3-chloropropane	1.0	UG/L	ND	UG/L	
1,2-Dibromoethane	1.0	UG/L	ND	UG/L	
1,2-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,2-Dichloroethane	1.0	UG/L	ND	UG/L	
1,2-Dichloropropane	1.0	UG/L	ND	UG/L	
1,3,5-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,3-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,3-Dichloropropane	1.0	UG/L	ND	UG/L	
1,4-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1-Chlorohexane	1.0	UG/L	ND	UG/L	
2,2-Dichloropropane	1.0	UG/L	ND	UG/L	
2-Butanone	5.0	UG/L	ND	UG/L	
2-Chloroethyl vinyl ether	2.0	UG/L	ND	UG/L	
2-Chlorotoluene	1.0	UG/L	ND	UG/L	
2-Hexanone	5.0	UG/L	ND	UG/L	
4-Chlorotoluene	1.0	UG/L	ND	UG/L	
4-Methyl-2-pentanone	5.0	UG/L	ND	UG/L	
Acetone	5.0	UG/L	ND	UG/L	
Acrolein	5.0	UG/L	ND	UG/L	
Acrylonitrile	1.0	UG/L	ND	UG/L	
Benzene	1.0	UG/L	ND	UG/L	
Bromobenzene	1.0	UG/L	ND	UG/L	
Bromochloromethane	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-Tapwater-1201RA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7402.003RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/13/01	DATE RECEIVED :	12/15/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 20:18

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	1.7	UG/L	
Bromoform	1.0	UG/L	1.6	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	0.79	UG/L	J
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	2.0	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	ND	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-Tapwater-1201RA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7402.003RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/13/01	DATE RECEIVED :	12/15/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 20:18

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	57
Dibromofluoromethane	10 UG/L	56 - 153	64
Toluene-d8	10 UG/L	68 - 124	
1,2-Dichloroethane-d4	10 UG/L	64 - 130	66

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK36 PREP BLANK ID :GVBLK36 LCS ID :GVLCS36

LCSD ID :GVLCS36D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-TW04-1201-RB
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7402.004
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/13/01	DATE RECEIVED	: 12/15/01
SAMPLE MATRIX	: WATER	PRINTED ON	: 1/4/2002 20:18

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 12/20/2001	DILUTION	: 1
INSTRUMENT FILE	: G5706.D	INSTRUMENT ID	: G-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 18:13

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,1-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1,2,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,2-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethene	1.0	UG/L	ND	UG/L	
1,1-Dichloropropene	1.0	UG/L	ND	UG/L	
1,2,3-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,3-Trichloropropane	1.0	UG/L	ND	UG/L	
1,2,4-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,4-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,2-Dibromo-3-chloropropane	1.0	UG/L	ND	UG/L	
1,2-Dibromoethane	1.0	UG/L	ND	UG/L	
1,2-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,2-Dichloroethane	1.0	UG/L	ND	UG/L	
1,2-Dichloropropane	1.0	UG/L	ND	UG/L	
1,3,5-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,3-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,3-Dichloropropane	1.0	UG/L	ND	UG/L	
1,4-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1-Chlorohexane	1.0	UG/L	ND	UG/L	
2,2-Dichloropropane	1.0	UG/L	ND	UG/L	
2-Butanone	5.0	UG/L	ND	UG/L	
2-Chloroethyl vinyl ether	2.0	UG/L	ND	UG/L	
2-Chlorotoluene	1.0	UG/L	ND	UG/L	
2-Hexanone	5.0	UG/L	ND	UG/L	
4-Chlorotoluene	1.0	UG/L	ND	UG/L	
4-Methyl-2-pentanone	5.0	UG/L	ND	UG/L	
Acetone	5.0	UG/L	ND	UG/L	
Acrolein	5.0	UG/L	ND	UG/L	
Acrylonitrile	1.0	UG/L	ND	UG/L	
Benzene	1.0	UG/L	ND	UG/L	
Bromobenzene	1.0	UG/L	ND	UG/L	
Bromochloromethane	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW04-1201-RB
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7402.004
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/13/01	DATE RECEIVED :	12/15/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 20:18

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	2.7	UG/L	
Bromoform	1.0	UG/L	ND	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	4.4	UG/L	
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	1.8	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	69	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW04-1201-RB
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7402.004
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/13/01	DATE RECEIVED :	12/15/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 20:18

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	76
Dibromofluoromethane	10 UG/L	56 - 153	93
Toluene-d8	10 UG/L	68 - 124	35
1,2-Dichloroethane-d4	10 UG/L	64 - 130	113

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK34 PREP BLANK ID :GVBLK34 LCS ID :GVLCS34

LCSD ID :GVLCS34D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW04-1201-RBRA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7402.004RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/13/01	DATE RECEIVED :	12/15/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 20:18

ANALYST	: ESP	CONTAINER ID	:
DATE ANALYZED	: 12/26/2001	DILUTION	: 1
INSTRUMENT FILE	: G5745.D	INSTRUMENT ID	: G-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 20:08

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,1-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1,2,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,2-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethene	1.0	UG/L	ND	UG/L	
1,1-Dichloropropene	1.0	UG/L	ND	UG/L	
1,2,3-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,3-Trichloropropane	1.0	UG/L	ND	UG/L	
1,2,4-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,4-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,2-Dibromo-3-chloropropane	1.0	UG/L	ND	UG/L	
1,2-Dibromoethane	1.0	UG/L	ND	UG/L	
1,2-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,2-Dichloroethane	1.0	UG/L	ND	UG/L	
1,2-Dichloropropane	1.0	UG/L	ND	UG/L	
1,3,5-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,3-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,3-Dichloropropane	1.0	UG/L	ND	UG/L	
1,4-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1-Chlorohexane	1.0	UG/L	ND	UG/L	
2,2-Dichloropropane	1.0	UG/L	ND	UG/L	
2-Butanone	5.0	UG/L	ND	UG/L	
2-Chloroethyl vinyl ether	2.0	UG/L	ND	UG/L	
2-Chlorotoluene	1.0	UG/L	ND	UG/L	
2-Hexanone	5.0	UG/L	ND	UG/L	
4-Chlorotoluene	1.0	UG/L	ND	UG/L	
4-Methyl-2-pentanone	5.0	UG/L	ND	UG/L	
Acetone	5.0	UG/L	ND	UG/L	
Acrolein	5.0	UG/L	ND	UG/L	
Acrylonitrile	1.0	UG/L	ND	UG/L	
Benzene	1.0	UG/L	ND	UG/L	
Bromobenzene	1.0	UG/L	ND	UG/L	
Bromochloromethane	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW04-1201-RBRA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7402.004RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/13/01	DATE RECEIVED :	12/15/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 20:18

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	3.6	UG/L	
Bromoform	1.0	UG/L	4.9	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	5.6	UG/L	
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	2.9	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	29	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW04-1201-RBRA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7402.004RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/13/01	DATE RECEIVED :	12/15/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 20:18

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	52
Dibromofluoromethane	10 UG/L	56 - 153	68
Toluene-d8	10 UG/L	68 - 124	11
1,2-Dichloroethane-d4	10 UG/L	64 - 130	71

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK36 PREP BLANK ID :GVBLK36 LCS ID :GVLCS36

LCSD ID :GVLCS36D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-TW02-1201
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7402.005
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/14/01	DATE RECEIVED	: 12/15/01
SAMPLE MATRIX	: WATER	PRINTED ON	: 1/4/2002 20:18

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 12/20/2001	DILUTION	: 1
INSTRUMENT FILE	: G5707.D	INSTRUMENT ID	: G-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 18:44

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1,1,2-Tetrachloroethane	1.0 UG/L	ND UG/L	
1,1,1-Trichloroethane	1.0 UG/L	ND UG/L	
1,1,2,2-Tetrachloroethane	1.0 UG/L	ND UG/L	
1,1,2-Trichloroethane	1.0 UG/L	ND UG/L	
1,1-Dichloroethane	1.0 UG/L	ND UG/L	
1,1-Dichloroethene	1.0 UG/L	ND UG/L	
1,1-Dichloropropene	1.0 UG/L	ND UG/L	
1,2,3-Trichlorobenzene	1.0 UG/L	ND UG/L	
1,2,3-Trichloropropane	1.0 UG/L	ND UG/L	
1,2,4-Trichlorobenzene	1.0 UG/L	ND UG/L	
1,2,4-Trimethylbenzene	1.0 UG/L	ND UG/L	
1,2-Dibromo-3-chloropropane	1.0 UG/L	ND UG/L	
1,2-Dibromoethane	1.0 UG/L	ND UG/L	
1,2-Dichlorobenzene	1.0 UG/L	ND UG/L	
1,2-Dichloroethane	1.0 UG/L	ND UG/L	
1,2-Dichloropropane	1.0 UG/L	ND UG/L	
1,3,5-Trimethylbenzene	1.0 UG/L	ND UG/L	
1,3-Dichlorobenzene	1.0 UG/L	ND UG/L	
1,3-Dichloropropane	1.0 UG/L	ND UG/L	
1,4-Dichlorobenzene	1.0 UG/L	ND UG/L	
1-Chlorohexane	1.0 UG/L	ND UG/L	
2,2-Dichloropropane	1.0 UG/L	ND UG/L	
2-Butanone	5.0 UG/L	ND UG/L	
2-Chloroethyl vinyl ether	2.0 UG/L	ND UG/L	
2-Chlorotoluene	1.0 UG/L	ND UG/L	
2-Hexanone	5.0 UG/L	ND UG/L	
4-Chlorotoluene	1.0 UG/L	ND UG/L	
4-Methyl-2-pentanone	5.0 UG/L	ND UG/L	
Acetone	5.0 UG/L	ND UG/L	
Acrolein	5.0 UG/L	ND UG/L	
Acrylonitrile	1.0 UG/L	ND UG/L	
Benzene	1.0 UG/L	ND UG/L	
Bromobenzene	1.0 UG/L	ND UG/L	
Bromochloromethane	1.0 UG/L	ND UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW02-1201
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7402.005
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/14/01	DATE RECEIVED :	12/15/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 20:18

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	ND	UG/L	
Bromoform	1.0	UG/L	ND	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	ND	UG/L	
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	ND	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	ND	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW02-1201
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7402.005
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/14/01	DATE RECEIVED :	12/15/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 20:18

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	45
Dibromofluoromethane	10 UG/L	56 - 153	67
Toluene-d8	10 UG/L	68 - 124	44
1,2-Dichloroethane-d4	10 UG/L	64 - 130	82

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK34 PREP BLANK ID :GVBLK34 LCS ID :GVLCS34

LCSD ID :GVLCS34D

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW02-1201RA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7402.005RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/14/01	DATE RECEIVED :	12/15/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 20:18

ANALYST	: ESP	CONTAINER ID	:
DATE ANALYZED	: 12/26/2001	DILUTION	: 1
INSTRUMENT FILE	: G5746.D	INSTRUMENT ID	: G-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 20:38

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,1-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1,2,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,2-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethene	1.0	UG/L	ND	UG/L	
1,1-Dichloropropene	1.0	UG/L	ND	UG/L	
1,2,3-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,3-Trichloropropane	1.0	UG/L	ND	UG/L	
1,2,4-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,4-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,2-Dibromo-3-chloropropane	1.0	UG/L	ND	UG/L	
1,2-Dibromoethane	1.0	UG/L	ND	UG/L	
1,2-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,2-Dichloroethane	1.0	UG/L	ND	UG/L	
1,2-Dichloropropane	1.0	UG/L	ND	UG/L	
1,3,5-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,3-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,3-Dichloropropane	1.0	UG/L	ND	UG/L	
1,4-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1-Chlorohexane	1.0	UG/L	ND	UG/L	
2,2-Dichloropropane	1.0	UG/L	ND	UG/L	
2-Butanone	5.0	UG/L	ND	UG/L	
2-Chloroethyl vinyl ether	2.0	UG/L	ND	UG/L	
2-Chlorotoluene	1.0	UG/L	ND	UG/L	
2-Hexanone	5.0	UG/L	ND	UG/L	
4-Chlorotoluene	1.0	UG/L	ND	UG/L	
4-Methyl-2-pentanone	5.0	UG/L	ND	UG/L	
Acetone	5.0	UG/L	ND	UG/L	
Acrolein	5.0	UG/L	ND	UG/L	
Acrylonitrile	1.0	UG/L	ND	UG/L	
Benzene	1.0	UG/L	ND	UG/L	
Bromobenzene	1.0	UG/L	ND	UG/L	
Bromochloromethane	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW02-1201RA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7402.005RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/14/01	DATE RECEIVED :	12/15/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 20:18

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	ND	UG/L	
Bromoform	1.0	UG/L	ND	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	ND	UG/L	
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	ND	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	ND	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW02-1201RA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7402.005RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/14/01	DATE RECEIVED :	12/15/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 20:18

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	71
Dibromofluoromethane	10 UG/L	56 - 153	84
Toluene-d8	10 UG/L	68 - 124	69
1,2-Dichloroethane-d4	10 UG/L	64 - 130	89

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK36 PREP BLANK ID :GVBLK36 LCS ID :GVLCS36

LCSD ID :GVLCS36D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK34
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/4/2002 20:18

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 12/20/2001	DILUTION	: 1
INSTRUMENT FILE	: G5698.D	INSTRUMENT ID	: G-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 13:38

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,1-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1,2,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,2-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethene	1.0	UG/L	ND	UG/L	
1,1-Dichloropropene	1.0	UG/L	ND	UG/L	
1,2,3-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,3-Trichloropropane	1.0	UG/L	ND	UG/L	
1,2,4-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,4-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,2-Dibromo-3-chloropropane	1.0	UG/L	ND	UG/L	
1,2-Dibromoethane	1.0	UG/L	ND	UG/L	
1,2-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,2-Dichloroethane	1.0	UG/L	ND	UG/L	
1,2-Dichloropropane	1.0	UG/L	ND	UG/L	
1,3,5-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,3-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,3-Dichloropropane	1.0	UG/L	ND	UG/L	
1,4-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1-Chlorohexane	1.0	UG/L	ND	UG/L	
2,2-Dichloropropane	1.0	UG/L	ND	UG/L	
2-Butanone	5.0	UG/L	ND	UG/L	
2-Chloroethyl vinyl ether	2.0	UG/L	ND	UG/L	
2-Chlorotoluene	1.0	UG/L	ND	UG/L	
2-Hexanone	5.0	UG/L	ND	UG/L	
4-Chlorotoluene	1.0	UG/L	ND	UG/L	
4-Methyl-2-pentanone	5.0	UG/L	ND	UG/L	
Acetone	5.0	UG/L	ND	UG/L	
Acrolein	5.0	UG/L	ND	UG/L	
Acrylonitrile	1.0	UG/L	ND	UG/L	
Benzene	1.0	UG/L	ND	UG/L	
Bromobenzene	1.0	UG/L	ND	UG/L	
Bromochloromethane	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK34
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/4/2002 20:18

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	ND	UG/L	
Bromoform	1.0	UG/L	ND	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	ND	UG/L	
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	ND	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	ND	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK34
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/4/2002 20:18

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	87
Dibromofluoromethane	10 UG/L	56 - 153	107
Toluene-d8	10 UG/L	68 - 124	98
1,2-Dichloroethane-d4	10 UG/L	64 - 130	121

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK34 PREP BLANK ID :GVBLK34

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK36
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/4/2002 20:18

ANALYST	: ESP	CONTAINER ID	:
DATE ANALYZED	: 12/26/2001	DILUTION	: 1
INSTRUMENT FILE	: G5738.D	INSTRUMENT ID	: G-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 16:38

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,1-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1,2,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,2-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethene	1.0	UG/L	ND	UG/L	
1,1-Dichloropropene	1.0	UG/L	ND	UG/L	
1,2,3-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,3-Trichloropropane	1.0	UG/L	ND	UG/L	
1,2,4-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,4-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,2-Dibromo-3-chloropropane	1.0	UG/L	ND	UG/L	
1,2-Dibromoethane	1.0	UG/L	ND	UG/L	
1,2-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,2-Dichloroethane	1.0	UG/L	ND	UG/L	
1,2-Dichloropropane	1.0	UG/L	ND	UG/L	
1,3,5-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,3-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,3-Dichloropropane	1.0	UG/L	ND	UG/L	
1,4-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1-Chlorohexane	1.0	UG/L	ND	UG/L	
2,2-Dichloropropane	1.0	UG/L	ND	UG/L	
2-Butanone	5.0	UG/L	ND	UG/L	
2-Chloroethyl vinyl ether	2.0	UG/L	ND	UG/L	
2-Chlorotoluene	1.0	UG/L	ND	UG/L	
2-Hexanone	5.0	UG/L	ND	UG/L	
4-Chlorotoluene	1.0	UG/L	ND	UG/L	
4-Methyl-2-pentanone	5.0	UG/L	ND	UG/L	
Acetone	5.0	UG/L	ND	UG/L	
Acrolein	5.0	UG/L	ND	UG/L	
Acrylonitrile	1.0	UG/L	ND	UG/L	
Benzene	1.0	UG/L	ND	UG/L	
Bromobenzene	1.0	UG/L	ND	UG/L	
Bromochloromethane	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK36
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/4/2002 20:18

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	ND	UG/L	
Bromoform	1.0	UG/L	ND	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	ND	UG/L	
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	ND	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	ND	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK36
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/4/2002 20:18

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	103
Dibromofluoromethane	10 UG/L	56 - 153	69
Toluene-d8	10 UG/L	68 - 124	121
1,2-Dichloroethane-d4	10 UG/L	64 - 130	67

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK36 PREP BLANK ID :GVBLK36

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	GVLCS34
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/4/2002 20:18

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 12/20/2001	DILUTION	: 1
INSTRUMENT FILE	: G5694.D	INSTRUMENT ID	: G-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 11:07

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	1.0 UG/L	11 UG/L	
Benzene	1.0 UG/L	10 UG/L	
Chlorobenzene	1.0 UG/L	10 UG/L	
Toluene	1.0 UG/L	11 UG/L	
Trichloroethene	1.0 UG/L	10 UG/L	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	105
Dibromofluoromethane	10 UG/L	56 - 153	108
Toluene-d8	10 UG/L	68 - 124	108
1,2-Dichloroethane-d4	10 UG/L	64 - 130	122

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK34 PREP BLANK ID :GVBLK34

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	:	CLIENT SAMPLE ID	: Lab Control Sample
PROJECT NAME	:	LAB SAMPLE ID	: GVLCS34D
PROJECT NUMBER	:	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	:	DATE RECEIVED	:
SAMPLE MATRIX	: LIQUID	PRINTED ON	: 1/4/2002 20:18

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 12/20/2001	DILUTION	: 1
INSTRUMENT FILE	: G5695.D	INSTRUMENT ID	: G-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 11:37

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	1.0 UG/L	10. UG/L	
Benzene	1.0 UG/L	10 UG/L	
Chlorobenzene	1.0 UG/L	10 UG/L	
Toluene	1.0 UG/L	11 UG/L	
Trichloroethene	1.0 UG/L	11 UG/L	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	109
Dibromofluoromethane	10 UG/L	56 - 153	109
Toluene-d8	10 UG/L	68 - 124	103
1,2-Dichloroethane-d4	10 UG/L	64 - 130	127

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK34 PREP BLANK ID :GVBLK34 LCS ID :GVLCS34

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LCS/LCSD SUMMARY REPORT

VOLATILES BY GC/MS

CLIENT NAME :
PROJECT NAME :
PROJECT NUMBER :

DATE RECEIVED :
PRINTED ON : 1/4/2002 20:18

SAMPLE MATRIX : LIQUID

METHOD REFERENCE : SW846-8260B

LAB CONTROL SAMPLE

LCS SAMPLE ID : GVLCS34
CLIENT SAMPLE ID :
DATE ANALYZED : 12/20/2001
INSTRUMENT FILE : G5694.D

LAB CONTROL SAMPLE DUPLICATE

LCSD SAMPLE ID : GVLCS34D
CLIENT SAMPLE ID :
DATE ANALYZED : 12/20/2001
INSTRUMENT FILE : G5695.D

PARAMETER	UNITS	LCS TRUE VALUE	LCSD TRUE VALUE	LCS FOUND VALUE	LCSD FOUND VALUE	LCS RECOVER (%)	LCSD RECOVERY (%)	RPD	RPD LIMIT	QC LIMIT REC.
1,1-Dichloroethene	UG/L	10.0	10.0	10.6	9.98	106	100	5.8	20	64 - 132
Benzene	UG/L	10.0	10.0	10.4	10.3	104	103	1.0	20	74 - 131
Chlorobenzene	UG/L	10.0	10.0	10.4	10.4	104	104	0.0	20	81 - 126
Toluene	UG/L	10.0	10.0	10.9	10.6	109	106	2.8	20	62 - 162
Trichloroethene	UG/L	10.0	10.0	10.3	10.6	103	106	2.9	20	67 - 132

* Indicate values outside of QC limits

RPD : 0 out of 5 outside limits
Spike Recovery : 0 out of 10 outside limits

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	:	CLIENT SAMPLE ID	: Lab Control Sample
PROJECT NAME	:	LAB SAMPLE ID	: GVLCS36
PROJECT NUMBER	:	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	:	DATE RECEIVED	:
SAMPLE MATRIX	: LIQUID	PRINTED ON	: 1/4/2002 20:18

ANALYST	: ESP	CONTAINER ID	:
DATE ANALYZED	: 12/26/2001	DILUTION	: 1
INSTRUMENT FILE	: G5739.D	INSTRUMENT ID	: G-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 17:08

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	1.0 UG/L	8.2 UG/L	
Benzene	1.0 UG/L	7.2 UG/L	
Chlorobenzene	1.0 UG/L	7.6 UG/L	
Toluene	1.0 UG/L	7.7 UG/L	
Trichloroethene	1.0 UG/L	7.7 UG/L	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	55
Dibromofluoromethane	10 UG/L	56 - 153	52
Toluene-d8	10 UG/L	68 - 124	47
1,2-Dichloroethane-d4	10 UG/L	64 - 130	55

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK36 PREP BLANK ID :GVBLK36

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	GVLCS36D
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/4/2002 20:18

ANALYST	: ESP	CONTAINER ID	:
DATE ANALYZED	: 12/26/2001	DILUTION	: 1
INSTRUMENT FILE	: G5740.D	INSTRUMENT ID	: G-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 17:38

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	1.0 UG/L	8.2 UG/L	
Benzene	1.0 UG/L	7.6 UG/L	
Chlorobenzene	1.0 UG/L	7.8 UG/L	
Toluene	1.0 UG/L	8.0 UG/L	
Trichloroethene	1.0 UG/L	8.0 UG/L	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	72
Dibromofluoromethane	10 UG/L	56 - 153	70
Toluene-d8	10 UG/L	68 - 124	69
1,2-Dichloroethane-d4	10 UG/L	64 - 130	71

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK36 PREP BLANK ID :GVBLK36 LCS ID :GVLCS36

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LCS/LCSD SUMMARY REPORT

VOLATILES BY GC/MS

CLIENT NAME :
PROJECT NAME :
PROJECT NUMBER :

DATE RECEIVED :
PRINTED ON : 1/4/2002 20:18

SAMPLE MATRIX : LIQUID
METHOD REFERENCE : SW846-8260B

LAB CONTROL SAMPLE
LCS SAMPLE ID : GVLCS36
CLIENT SAMPLE ID :
DATE ANALYZED : 12/26/2001
INSTRUMENT FILE : G5739.D

LAB CONTROL SAMPLE DUPLICATE
LCSD SAMPLE ID : GVLCS36D
CLIENT SAMPLE ID :
DATE ANALYZED : 12/26/2001
INSTRUMENT FILE : G5740.D

PARAMETER	UNITS	LCS TRUE VALUE	LCSD TRUE VALUE	LCS FOUND VALUE	LCSD FOUND VALUE	LCS RECOVER (%)	LCSD RECOVERY (%)	RPD	RPD LIMIT	QC LIMIT REC.
1,1-Dichloroethene	UG/L	10.0	10.0	8.18	8.25	82	83	1.2	20	64 - 132
Benzene	UG/L	10.0	10.0	7.20	7.62	72 *	76	5.4	20	74 - 131
Chlorobenzene	UG/L	10.0	10.0	7.51	7.80	75 *	78 *	3.9	20	81 - 126
Toluene	UG/L	10.0	10.0	7.67	7.96	77	80	3.8	20	62 - 162
Trichloroethene	UG/L	10.0	10.0	7.72	7.96	77	80	3.8	20	67 - 132

* Indicate values outside of QC limits

RPD : 0 out of 5 outside limits
Spike Recovery : 3 out of 10 outside limits

END OF REPORT

TOTAL NUMBER OF PAGES: 63

PDP
Analytical Services

1680 Lake Front Circle, Suite B
The Woodlands, Texas 77380
Phone (281) 363-2233
Fax (281) 298-5784
e-mail pdp@pdpanalytical.com

January 10, 2002

Mr. Greg Watterson
MEVATEC Corporation
P.O. Box 399
Bldg. 126
WSMR, NM 88002

Episode: 7432
Project ID: 800-A9

Dear Mr. Watterson:

Enclosed are the analytical results for the samples received in our laboratory on December 21rst, 2001. The samples were analyzed for the parameters indicated on the Chain-of-Custody (COC).

It should also be noted that, upon occasion, the surrogate recoveries for the samples might be outside acceptance limits due to the nature of the sample. So the couple of samples, which did not meet the surrogate acceptance criteria, were reanalyzed for nonconformances. If the Laboratory Control Spike (LCS) recovery meets acceptance criteria, then the analytical system is deemed to be in control and the data is accepted.

Please be advised that unused portions of your samples, sample extracts and digestates will be stored for 30 days from the date of this report. Unless prior arrangements were made, at the end of this period your samples will either be disposed of, or returned to you if your samples were determined to be hazardous.

Should you have any questions or need assistance with this report, please feel free to call me, at (281) 363-2233.

Sincerely,

Dr. Siva S Palchuru, Ph.D.
Laboratory Director

Enclosures
cc: Episode File – 7432

PDP Analytical Services
1630 Lake Front Circle, Suite B, The Woodlands, TX 77380

Lab Qualifiers

Qualifier	Definition
B	This flag is used when the analyte is found in the associated blank as well as in the sample.
D	Indicates that the compound could not be detected because it was diluted out.
DL	This flag identifies an analysis at a secondary delution factor.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. A more accurate quantitation is obtained from a diluted sample analysis.
I	This flag is used to indicate the presence of interference, which resulted in not determining the value.
J	This flag is used when the data indicates the presence of a compound below the quantitation limit determined by the identification criteria.
NA	Not Applicable.
NC	Not Calculated.
ND	Indicates a compound was analyzed for but not detected at the quantitation level.
P	This flag is used for a pesticide/aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns.
RE	This flag is used when the sample is re-extracted and re-analyzed.
RA	This flag is used when the sample is re-analyzed.
U	This flag indicates that the compound was analyzed for but not detected.
*	Indicates that the compound is out of the Quality Control Limits.

CHAIN OF CUSTODY

MEVATEC CORPORATION
P.O. Box 399
Bldg. 126
WSMR, NM 88002
(505) 678-0263

PDP PO# 01P-2005

CHAIN OF CUSTODY RECORD

PROJECT NO.: 800A9
PROJECT NAME: HWSF Evaporation Tank
SAMPLER'S SIGNATURE: [signature]

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	ANALYSIS REQUESTED: 8260	REMARKS 7432.
12-19-01	0720	HWSF-TB-03	Aqueous		3	X	Trip Blank .001
	0744	HWSF-SB12-(1.5-2.0)	Soil		1	X	.002
	0750	HWSF-SB12-(3.5-4.0)			1	X	.003
	0756	HWSF-SB12-(5.5-6.0)			1	X	.004
	0805	HWSF-SB12-(11.0-12.0)			1	X	.005
	0830	HWSF-SB12-(19.5-20.0)			1	X	.006
	0845	HWSF-SB12-(24.5-25.0)			1	X	.007
	0910	HWSF-SB11-(1.5-2.0)			1	X	.008
	0915	HWSF-SB11-(3.5-4.0)			1	X	.009
	0919	HWSF-SB11-(5.5-6.0)			1	X	.010
	0927	HWSF-SB11-(11.5-12.0)			1	X	.011
	0950	HWSF-SB11-(19.5-20.0)			1	X	.012
	1005	HWSF-SB11-(24.5-25.0)			1	X	.013
	1112	HWSF-SB04-(1.5-2.0)			1	X	.014
	1119	HWSF-SB04-(3.5-4.0)			1	X	.015
	1124	HWSF-SB04-(5.5-6.0)			1	X	.016
	1135	HWSF-SB04-(11.0-12.0)			1	X	.017
	1150	HWSF-SB04-(19.5-20.0)			1	X	.018

PROJECT INFORMATION		1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER: William Little	SAMPLES RECEIVED	(PRINTED NAME) Greg Watterson	(PRINTED NAME)	(PRINTED NAME) SIVA PALCHURU
SHIPPING ID. NO.	TOTAL NO. OF CONTAINERS	RECEIVED BY:	RECEIVED BY:	(COMPANY) PDP Analytical
VIA: FedEx	CHAIN OF CUSTODY SEALS	(TIME / DATE)	(TIME / DATE)	(TIME / DATE) 12/21/01 1000 Am
	GOOD CONDITION/CHILLED	SPECIAL INSTRUCTIONS / COMMENTS: Refer to Scope of Work for required DL's.		
	CONFORMS TO RECORD			

PLEASE USE BALL POINT PEN

DISTRIBUTION: WHITE - PROJECT FILES; YELLOW - LAB; PINK - FIELD COPY

PDP PO# 01P-2050

MEVATEC CORPORATION
P.O. Box 399
Bldg. 126
WSMR, NM 88002
(505) 678-0263

CHAIN OF CUSTODY RECORD

PROJECT NO.: 800A9
PROJECT NAME: HWSF Evaporation Tank
SAMPLER'S SIGNATURE: [signature]

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	8260	REMARKS
12-18-01	1206	HWSF-SB04-(24.5-25.0)	Soil		1	X	7432.019
	1227	HWSF-SB03-(1.5-2.0)			1	X	.020
	1237	HWSF-SB03-(3.5-4.0)			1	X	.021
	1243	HWSF-SB03-(5.5-6.0)			1	X	.022
	1253	HWSF-SB03-(11.5-12.0)			1	X	.023
	1318	HWSF-SB03-(19.5-20.0)			1	X	.024
	1331	HWSF-SB03-(24.0-25.0)			1	X	.025
	1408	HWSF-SB02-(1.5-2.0)			1	X	.026
	1416	HWSF-SB02-(3.5-4.0)			1	X	.027
	1420	HWSF-SB02-(5.5-6.0)			1	X	.028
	1430	HWSF-SB02-(11.5-12.0)			1	X	.029
	1447	HWSF-SB02-(19.5-20.0)			1	X	.030
	1458	HWSF-SB02-(24.5-25.0)			1	X	.031
	1538	HWSF-SB01-(1.5-2.0)			1	X	.032
	1548	HWSF-SB01-(3.5-4.0)			1	X	.033
	1552	HWSF-SB01-(5.5-6.0)			1	X	.034
	1600	HWSF-SB01-(11.0-12.0)			1	X	.035
	1620	HWSF-SB01-(19.5-20.0)			1	X	.036

PROJECT INFORMATION		
PROJECT MANAGER: Willie Little	SAMPLES RECEIVED	
SHIPPING ID NO.	TOTAL NO. OF CONTAINERS	
	CHAIN OF CUSTODY SEALS	
VIA: FedEx	GOOD CONDITION/CHILLED	
	CONFORMS TO RECORD	

1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
(PRINTED NAME) Greg Watterson	(PRINTED NAME)	(PRINTED NAME) SIVA PALCHURU
RECEIVED BY:	RECEIVED BY:	(COMPANY) PDP Analytical
(TIME / DATE)	(TIME / DATE)	(TIME / DATE) 12/21/01 1030a

SPECIAL INSTRUCTIONS / COMMENTS:

PLEASE USE BALL POINT PEN

DISTRIBUTION: WHITE - PROJECT FILES; YELLOW - LAB; PINK - FIELD COPY

PDP

PO#: 01P-2505

MEVATEC CORPORATION
P.O. Box 399
Bldg. 126
WSMR, NM 88002
(505) 678-0263

CHAIN OF CUSTODY RECORD

PROJECT NO.: 800A9

PROJECT NAME: HWSF Evaporation Tank

SAMPLER'S SIGNATURE: [signature]

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	8260	REMARKS
12-19-01	1635	HWSF-5301-(24.5-25.0)	Soil		1	X	7432 .037

PROJECT INFORMATION			1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER: William Little	SAMPLES RECEIVED		(PRINTED NAME) Greg Patterson	(PRINTED NAME)	(PRINTED NAME) SIVA PALCHURU
SHIPPING ID. NO.	TOTAL NO. OF CONTAINERS		RECEIVED BY:	RECEIVED BY:	(COMPANY) PDP Analytical Ser
VIA: FedEx	CHAIN OF CUSTODY SEALS		(TIME / DATE)	(TIME / DATE)	(TIME / DATE) 12/31/01 1000 Am
	GOOD CONDITION/CHILLED		SPECIAL INSTRUCTIONS / COMMENTS:		
	CONFORMS TO RECORD				

PLEASE USE BALL POINT PEN

DISTRIBUTION: WHITE - PROJECT FILES; YELLOW - LAB; PINK - FIELD COPY

PDP ANALYTICAL SERVICES
1680 Lake Front Circle, Suite B, The Woodlands, TX 77380
SAMPLE LOG-IN CHECKLIST/DISCREPANCY REPORT

EPISODE #: 7432 DATE/ REC'D: 12/21/01 TIME 10:00A

CLIENT NAME: Mevatec Corp

PROJECT NAME: White Sands

PROJECT NUMBER: 800A9

1 AQUEOUS, # 36 SOIL SAMPLES

COURIER/AIRBILL #

TEMP & ID: 1) 4°C # 2) # 3) # 4) # 5) # 6) #

SAMPLE CONTAINER SEALS: present (absent) intact broken

COOLER CUSTODY SEALS: present (absent) intact broken NAME & DATE:

HOW MANY AND WHERE

	YES	NO
Were samples screened for radioactivity?		
Chain-of-custody present?	✓	
Custody documents: Sealed in a plastic bag?	✓	
Signed and dated by field personnel	✓	
Filled out properly in indelable ink?	✓	
Signed and dated by log-in personnel?	✓	
Container Condition: Each containers sealed in a separate plastic bag?	✓	
Labels complete (ID, date, time, signature, preservative, etc.)?	✓	
Labels agree with chain-of-custody?	✓	
Received without leakage or breakage? If no, list :	✓	
Correct quantity indicated on chain-of-custody?	✓	
Sample Integrity: Correct containers used for the test indicated? If no, list:	✓	
Correct preservatives added to the samples? If no, list:	✓	
Sufficient sample amount sent for the tests indicated? If no, list	✓	
VOA vials filled completely? If no, list:	✓	
Aqueous volatiles samples preserved? If no, list:	✓	

Descrepancy Report:

Discepancies to be discussed with the client?

Project Manager's recommendations?

Who was notified? By whom? Date:

Client's comments:

Corrective actions carried out?

COMMENTS:

For those short holding time and fast turn-around parameters, has a Rush Notification sheet been issued to the lab?

LOG-IN BY: DATE: 12/21/01

0000006

Z:\Forms\Admin\scdr0398.doc

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands TX 77380
Sample Log-In Report

Logged By: HP **Report Date:** 12/22/2001 11:15:05

Client Name: MEVATEC CORPORATION **Lab Project ID:** Q1702
Client Project Name: HWSF EVAPORATION TANK **Date Logged:** 12/22/01
ClientProject #: 800A9 **Date Received:** 12/21/01
P.O. No.: 01P-2055 **Time Received:** 10:00
Courier/No.:

Lab Sample ID	Client Sample ID	No. Cont.	Sample Matrix	Date Sampled	Time Sampled	Chain Of Custody No.	Date Due	Remarks
7432.001	HWSF-TB-03	3	WATER	12/19/01	07:20	7432-1		
	Tests Required							
	- VOA8260B						01/11/02	
7432.002	HWSF-SB12-(1.5-2.0)	1	SOIL	12/19/01	07:44	7432-1		
	Tests Required							
	- VOA8260B						01/11/02	
7432.003	HWSF-SB12-(3.5-4.0)	1	SOIL	12/19/01	07:50	7432-1		
	Tests Required							
	- VOA8260B						01/11/02	
7432.004	HWSF-SB12-(5.5-6.0)	1	SOIL	12/19/01	07:56	7432-1		
	Tests Required							
	- VOA8260B						01/11/02	
7432.005	HWSF-SB12-(11.0-12.0)	1	SOIL	12/19/01	08:05	7432-1		
	Tests Required							
	- VOA8260B						01/11/02	
7432.006	HWSF-SB12-(19.5-20.0)	1	SOIL	12/19/01	08:30	7432-1		
	Tests Required							
	- VOA8260B						01/11/02	
7432.007	HWSF-SB12-(24.5-25.0)	1	SOIL	12/19/01	08:45	7432-1		
	Tests Required							
	- VOA8260B						01/11/02	
7432.008	HWSF-SB11-(1.5-2.0)	1	SOIL	12/19/01	09:10	7432-1		
	Tests Required							
	- VOA8260B						01/11/02	
7432.009	HWSF-SB11-(3.5-4.0)	1	SOIL	12/19/01	09:15	7432-1		
	Tests Required							
	- VOA8260B						01/11/02	
7432.010	HWSF-SB11-(5.5-6.0)	1	SOIL	12/19/01	09:19	7432-1		
	Tests Required							
	- VOA8260B						01/11/02	
7432.011	HWSF-SB11-(11.5-12.0)	1	SOIL	12/19/01	09:27	7432-1		
	Tests Required							
	- VOA8260B						01/11/02	
7432.012	HWSF-SB11-(19.5-20.0)	1	SOIL	12/19/01	09:50	7432-1		
	Tests Required							
	- VOA8260B						01/11/02	

12/22/01 Lab Approval

Client Approval

0000007

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands TX 77380
Sample Log-In Report

Logged By: HP **Report Date:** 12/22/2001 11:15:05

Client Name: MEVATEC CORPORATION **Lab Project ID:** Q1702
Client Project Name: HWSF EVAPORATION TANK **Date Logged:** 12/22/01
ClientProject #: 800A9 **Date Received:** 12/21/01
P.O. No.: 01P-2055 **Time Received:** 10:00
Courier/No.:

Lab Sample ID	Client Sample ID	No. Cont.	Sample Matrix	Date Sampled	Time Sampled	Chain Of Custody No.	Date Due	Remarks
7432.013	HWSF-SB11-(24.5-25.0)	1	SOIL	12/19/01	10:05	7432-1		
	Tests Required							
	- VOA8260B						01/11/02	
7432.014	HWSF-SB04-(1.5-2.0)	1	SOIL	12/19/01	11:12	7432-1		
	Tests Required							
	- VOA8260B						01/11/02	
7432.015	HWSF-SB04-(3.5-4.0)	1	SOIL	12/19/01	11:19	7432-1		
	Tests Required							
	- VOA8260B						01/11/02	
7432.016	HWSF-SB04-(5.5-6.0)	1	SOIL	12/19/01	11:24	7432-1		
	Tests Required							
	- VOA8260B						01/11/02	
7432.017	HWSF-SB04-(11.0-12.0)	1	SOIL	12/19/01	11:35	7432-1		
	Tests Required							
	- VOA8260B						01/11/02	
7432.018	HWSF-SB04-(19.5-20.0)	1	SOIL	12/19/01	11:50	7432-1		
	Tests Required							
	- VOA8260B						01/11/02	
7432.019	HWSF-SB04-(24.5-25.0)	1	SOIL	12/19/01	12:06	7432-2		
	Tests Required							
	- VOA8260B						01/11/02	
7432.020	HWSF-SB03-(1.5-2.0)	1	SOIL	12/19/01	12:27	7432-2		
	Tests Required							
	- VOA8260B						01/11/02	
7432.021	HWSF-SB03-(3.5-4.0)	1	SOIL	12/19/01	12:37	7432-2		
	Tests Required							
	- VOA8260B						01/11/02	
7432.022	HWSF-SB03-(5.5-6.0)	1	SOIL	12/19/01	12:43	7432-2		
	Tests Required							
	- VOA8260B						01/11/02	
7432.023	HWSF-SB03-(11.5-12.0)	1	SOIL	12/19/01	12:53	7432-2		
	Tests Required							
	- VOA8260B						01/11/02	
7432.024	HWSF-SB03-(19.5-20.0)	1	SOIL	12/19/01	13:18	7432-2		
	Tests Required							
	- VOA8260B						01/11/02	

12/22/01 **Lab Approval** **Client Approval**

0000008

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands TX 77380
Sample Log-In Report

Logged By: HP **Report Date:** 12/22/2001 11:15:05

Client Name: MEVATEC CORPORATION **Lab Project ID;** Q1702
Client Project Name: HWSF EVAPORATION TANK **Date Logged:** 12/22/01
ClientProject #: 800A9 **Date Received:** 12/21/01
P.O. No.: 01P-2055 **Time Received:** 10:00
Courier/No.:

Lab Sample ID	Client Sample ID	No. Cont.	Sample Matrix	Date Sampled	Time Sampled	Chain Of Custody No.	Date Due	Remarks
7432.025	HWSF-SB03-(24.0-25.0)	1	SOIL	12/19/01	13:31	7432-2		
	Tests Required							
	- VOA8260B						01/11/02	
7432.026	HWSF-SB02-(1.5-2.0)	1	SOIL	12/19/01	14:08	7432-2		
	Tests Required							
	- VOA8260B						01/11/02	
7432.027	HWSF-SB02-(3.5-4.0)	1	SOIL	12/19/01	14:16	7432-2		
	Tests Required							
	- VOA8260B						01/11/02	
7432.028	HWSF-SB02-(5.5-6.0)	1	SOIL	12/19/01	14:20	7432-2		
	Tests Required							
	- VOA8260B						01/11/02	
7432.029	HWSF-SB02-(11.5-12.0)	1	SOIL	12/19/01	14:30	7432-2		
	Tests Required							
	- VOA8260B						01/11/02	
7432.030	HWSF-SB02-(19.5-20.0)	1	SOIL	12/19/01	14:47	7432-2		
	Tests Required							
	- VOA8260B						01/11/02	
7432.031	HWSF-SB02-(24.5-25.0)	1	SOIL	12/19/01	14:58	7432-2		
	Tests Required							
	- VOA8260B						01/11/02	
7432.032	HWSF-SB01-(1.5-2.0)	1	SOIL	12/19/01	15:38	7432-2		
	Tests Required							
	- VOA8260B						01/11/02	
7432.033	HWSF-SB01-(3.5-4.0)	1	SOIL	12/19/01	15:48	7432-2		
	Tests Required							
	- VOA8260B						01/11/02	
7432.034	HWSF-SB01-(5.5-6.0)	1	SOIL	12/19/01	15:52	7432-2		
	Tests Required							
	- VOA8260B						01/11/02	
7432.035	HWSF-SB01-(11.0-12.0)	1	SOIL	12/19/01	16:00	7432-2		
	Tests Required							
	- VOA8260B						01/11/02	
7432.036	HWSF-SB01-(19.5-20.0)	1	SOIL	12/19/01	16:20	7432-2		
	Tests Required							
	- VOA8260B						01/11/02	

12/22/01 Lab Approval

Client Approval

0000009

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands TX 77380

Sample Log-In Report

Logged By: HP

Report Date: 12/22/2001 11:15:05

Client Name: MEVATEC CORPORATION
Client Project Name: HWSF EVAPORATION TANK
ClientProject #: 800A9
P.O. No.: 01P-2055
Courier/No.:

Lab Project ID: Q1702
Date Logged: 12/22/01
Date Received: 12/21/01
Time Received: 10:00

Lab Sample ID	Client Sample ID	No. Cont.	Sample Matrix	Date Sampled	Time Sampled	Chain Of Custody No.	Date Due	Remarks
7432.037	HWSF-SB01-(24.5-25.0)	1	SOIL	12/19/01	16:35	7432-3		
	Tests Required							
	- VOA8260B						01/11/02	

Instructions To Lab:

12/24/01 Lab Approval

Client Approval

0000010

VOA

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TB-03
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.001
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/9/2002 18:55

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 1/1/2002	DILUTION	: 1
INSTRUMENT FILE	: F9135.D	INSTRUMENT ID	: F-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 18:08

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1,1,2-Tetrachloroethane	1.0 UG/L	ND UG/L	
1,1,1-Trichloroethane	1.0 UG/L	ND UG/L	
1,1,2,2-Tetrachloroethane	1.0 UG/L	ND UG/L	
1,1,2-Trichloroethane	1.0 UG/L	ND UG/L	
1,1-Dichloroethane	1.0 UG/L	ND UG/L	
1,1-Dichloroethene	1.0 UG/L	ND UG/L	
1,1-Dichloropropene	1.0 UG/L	ND UG/L	
1,2,3-Trichlorobenzene	1.0 UG/L	ND UG/L	
1,2,3-Trichloropropane	1.0 UG/L	ND UG/L	
1,2,4-Trichlorobenzene	1.0 UG/L	ND UG/L	
1,2,4-Trimethylbenzene	1.0 UG/L	ND UG/L	
1,2-Dibromo-3-chloropropane	1.0 UG/L	ND UG/L	
1,2-Dibromoethane	1.0 UG/L	ND UG/L	
1,2-Dichlorobenzene	1.0 UG/L	ND UG/L	
1,2-Dichloroethane	1.0 UG/L	ND UG/L	
1,2-Dichloropropane	1.0 UG/L	ND UG/L	
1,3,5-Trimethylbenzene	1.0 UG/L	ND UG/L	
1,3-Dichlorobenzene	1.0 UG/L	ND UG/L	
1,3-Dichloropropane	1.0 UG/L	ND UG/L	
1,4-Dichlorobenzene	1.0 UG/L	ND UG/L	
1-Chlorohexane	1.0 UG/L	ND UG/L	
2,2-Dichloropropane	1.0 UG/L	ND UG/L	
2-Butanone	5.0 UG/L	ND UG/L	
2-Chloroethyl vinyl ether	2.0 UG/L	ND UG/L	
2-Chlorotoluene	1.0 UG/L	ND UG/L	
2-Hexanone	5.0 UG/L	ND UG/L	
4-Chlorotoluene	1.0 UG/L	ND UG/L	
4-Methyl-2-pentanone	5.0 UG/L	ND UG/L	
Acetone	5.0 UG/L	ND UG/L	
Acrolein	5.0 UG/L	ND UG/L	
Acrylonitrile	1.0 UG/L	ND UG/L	
Benzene	1.0 UG/L	ND UG/L	
Bromobenzene	1.0 UG/L	ND UG/L	
Bromochloromethane	1.0 UG/L	ND UG/L	

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1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TB-03
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.001
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	ND	UG/L	
Bromoform	1.0	UG/L	ND	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	ND	UG/L	
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	ND	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	ND	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TB-03
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.001
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	72
Dibromofluoromethane	10 UG/L	56 - 153	136
Toluene-d8	10 UG/L	68 - 124	81
1,2-Dichloroethane-d4	10 UG/L	64 - 130	129

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID : FVBLK54 PREP BLANK ID : FVBLK54 LCS ID : FVLCS54

LCSD ID : FVLCS54D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB12-(1.5-2.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.002
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:55

% MOISTURE	: 19.64	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/1/2002
DILUTION	: 1	INSTRUMENT FILE	: G5840.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5 g
TIME ANALYZED	: 19:26		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	6.2	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	6.2	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	6.2	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	6.2	UG/KG	ND	UG/KG	
1,1-Dichloroethane	6.2	UG/KG	ND	UG/KG	
1,1-Dichloroethene	6.2	UG/KG	ND	UG/KG	
1,1-Dichloropropene	6.2	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	6.2	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	6.2	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	6.2	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	6.2	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	6.2	UG/KG	ND	UG/KG	
1,2-Dibromoethane	6.2	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	6.2	UG/KG	ND	UG/KG	
1,2-Dichloroethane	6.2	UG/KG	ND	UG/KG	
1,2-Dichloropropane	6.2	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	6.2	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	6.2	UG/KG	ND	UG/KG	
1,3-Dichloropropane	6.2	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	6.2	UG/KG	ND	UG/KG	
1-Chlorohexane	6.2	UG/KG	ND	UG/KG	
2,2-Dichloropropane	6.2	UG/KG	ND	UG/KG	
2-Butanone	12	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	12	UG/KG	ND	UG/KG	
2-Chlorotoluene	6.2	UG/KG	ND	UG/KG	
2-Hexanone	12	UG/KG	ND	UG/KG	
4-Chlorotoluene	6.2	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	12	UG/KG	ND	UG/KG	
Acetone	12	UG/KG	ND	UG/KG	
Acrylonitrile	6.2	UG/KG	ND	UG/KG	
Benzene	6.2	UG/KG	ND	UG/KG	
Bromobenzene	6.2	UG/KG	ND	UG/KG	
Bromochloromethane	6.2	UG/KG	ND	UG/KG	

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1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB12-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.002
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	6.2	UG/KG	ND	UG/KG	
Bromoform	6.2	UG/KG	ND	UG/KG	
Bromomethane	6.2	UG/KG	ND	UG/KG	
Carbon disulfide	6.2	UG/KG	ND	UG/KG	
Carbon tetrachloride	6.2	UG/KG	ND	UG/KG	
Chlorobenzene	6.2	UG/KG	ND	UG/KG	
Chloroethane	6.2	UG/KG	ND	UG/KG	
Chloroform	6.2	UG/KG	ND	UG/KG	
Chloromethane	6.2	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	6.2	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	6.2	UG/KG	ND	UG/KG	
Dibromochloromethane	6.2	UG/KG	ND	UG/KG	
Dibromomethane	6.2	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	6.2	UG/KG	ND	UG/KG	
Ethyl benzene	6.2	UG/KG	ND	UG/KG	
Hexachlorobutadiene	6.2	UG/KG	ND	UG/KG	
Iodomethane	6.2	UG/KG	ND	UG/KG	
Isopropylbenzene	6.2	UG/KG	ND	UG/KG	
Methyl t-Butylether	6.2	UG/KG	ND	UG/KG	
Methylene chloride	6.2	UG/KG	ND	UG/KG	
n-Butylbenzene	6.2	UG/KG	ND	UG/KG	
n-Propylbenzene	6.2	UG/KG	ND	UG/KG	
Naphthalene	6.2	UG/KG	ND	UG/KG	
p-Isopropyltoluene	6.2	UG/KG	ND	UG/KG	
sec-Butylbenzene	6.2	UG/KG	ND	UG/KG	
Styrene	6.2	UG/KG	ND	UG/KG	
tert-Butylbenzene	6.2	UG/KG	ND	UG/KG	
Tetrachloroethene	6.2	UG/KG	ND	UG/KG	
Toluene	6.2	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	6.2	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	6.2	UG/KG	ND	UG/KG	
Trichloroethene	6.2	UG/KG	ND	UG/KG	
Trichlorofluoromethane	6.2	UG/KG	ND	UG/KG	
Vinyl Acetate	6.2	UG/KG	ND	UG/KG	
Vinyl chloride	6.2	UG/KG	ND	UG/KG	
Xylene (total)	6.2	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB12-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.002
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	62.2 UG/KG	85 - 112	100
1,2-Dichloroethane-d4	62.2 UG/KG	77 - 122	108
4-Bromofluorobenzene	62.2 UG/KG	83 - 116	81
Dibromofluoromethane	62.2 UG/KG	83 - 113	108

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK41 PREP BLANK ID :GVBLK41 LCS ID :GVLCS41

LCSD ID :GVLCS41D

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB12-(3.5-4.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.003
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:55

% MOISTURE	: 9.193	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 12/31/2001
DILUTION	: 1	INSTRUMENT FILE	: G5822.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.01 g
TIME ANALYZED	: 19:15		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.5	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.5	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.5	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.5	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.5	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.5	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.5	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.5	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.5	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.5	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.5	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.5	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.5	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.5	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.5	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.5	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.5	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.5	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.5	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.5	UG/KG	ND	UG/KG	
1-Chlorohexane	5.5	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.5	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.5	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.5	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.5	UG/KG	ND	UG/KG	
Benzene	5.5	UG/KG	ND	UG/KG	
Bromobenzene	5.5	UG/KG	ND	UG/KG	
Bromochloromethane	5.5	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB12-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.003
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.5	UG/KG	ND	UG/KG	
Bromoform	5.5	UG/KG	ND	UG/KG	
Bromomethane	5.5	UG/KG	ND	UG/KG	
Carbon disulfide	5.5	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.5	UG/KG	ND	UG/KG	
Chlorobenzene	5.5	UG/KG	ND	UG/KG	
Chloroethane	5.5	UG/KG	ND	UG/KG	
Chloroform	5.5	UG/KG	ND	UG/KG	
Chloromethane	5.5	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.5	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.5	UG/KG	ND	UG/KG	
Dibromochloromethane	5.5	UG/KG	ND	UG/KG	
Dibromomethane	5.5	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.5	UG/KG	ND	UG/KG	
Ethyl benzene	5.5	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.5	UG/KG	ND	UG/KG	
Iodomethane	5.5	UG/KG	ND	UG/KG	
Isopropylbenzene	5.5	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.5	UG/KG	ND	UG/KG	
Methylene chloride	5.5	UG/KG	ND	UG/KG	
n-Butylbenzene	5.5	UG/KG	ND	UG/KG	
n-Propylbenzene	5.5	UG/KG	ND	UG/KG	
Naphthalene	5.5	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.5	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.5	UG/KG	ND	UG/KG	
Styrene	5.5	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.5	UG/KG	ND	UG/KG	
Tetrachloroethene	5.5	UG/KG	ND	UG/KG	
Toluene	5.5	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.5	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.5	UG/KG	ND	UG/KG	
Trichloroethene	5.5	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.5	UG/KG	ND	UG/KG	
Vinyl Acetate	5.5	UG/KG	ND	UG/KG	
Vinyl chloride	5.5	UG/KG	ND	UG/KG	
Xylene (total)	5.5	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB12-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.003
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	54.9 UG/KG	85 - 112	105
1,2-Dichloroethane-d4	54.9 UG/KG	77 - 122	100
4-Bromofluorobenzene	54.9 UG/KG	83 - 116	83
Dibromofluoromethane	54.9 UG/KG	83 - 113	98

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK40 PREP BLANK ID :GVBLK40 LCS ID :GVLCS40

LCSD ID :GVLCS40D

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB12-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.004
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

% MOISTURE	: 6.109	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 12/31/2001
DILUTION	: 1	INSTRUMENT FILE	: G5823.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.12 g
TIME ANALYZED	: 19:46		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.2	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.2	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.2	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.2	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.2	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.2	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.2	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.2	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.2	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.2	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.2	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.2	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.2	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.2	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.2	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1-Chlorohexane	5.2	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.2	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.2	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.2	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.2	UG/KG	ND	UG/KG	
Benzene	5.2	UG/KG	ND	UG/KG	
Bromobenzene	5.2	UG/KG	ND	UG/KG	
Bromochloromethane	5.2	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB12-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.004
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.2	UG/KG	ND	UG/KG	
Bromoform	5.2	UG/KG	ND	UG/KG	
Bromomethane	5.2	UG/KG	ND	UG/KG	
Carbon disulfide	5.2	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.2	UG/KG	ND	UG/KG	
Chlorobenzene	5.2	UG/KG	ND	UG/KG	
Chloroethane	5.2	UG/KG	ND	UG/KG	
Chloroform	5.2	UG/KG	ND	UG/KG	
Chloromethane	5.2	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.2	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.2	UG/KG	ND	UG/KG	
Dibromochloromethane	5.2	UG/KG	ND	UG/KG	
Dibromomethane	5.2	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.2	UG/KG	ND	UG/KG	
Ethyl benzene	5.2	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.2	UG/KG	ND	UG/KG	
Iodomethane	5.2	UG/KG	ND	UG/KG	
Isopropylbenzene	5.2	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.2	UG/KG	ND	UG/KG	
Methylene chloride	5.2	UG/KG	ND	UG/KG	
n-Butylbenzene	5.2	UG/KG	ND	UG/KG	
n-Propylbenzene	5.2	UG/KG	ND	UG/KG	
Naphthalene	5.2	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.2	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.2	UG/KG	ND	UG/KG	
Styrene	5.2	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.2	UG/KG	ND	UG/KG	
Tetrachloroethene	5.2	UG/KG	ND	UG/KG	
Toluene	5.2	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.2	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.2	UG/KG	ND	UG/KG	
Trichloroethene	5.2	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.2	UG/KG	ND	UG/KG	
Vinyl Acetate	5.2	UG/KG	ND	UG/KG	
Vinyl chloride	5.2	UG/KG	ND	UG/KG	
Xylene (total)	5.2	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB12-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.004
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	52 UG/KG	85 - 112	102
1,2-Dichloroethane-d4	52 UG/KG	77 - 122	94
4-Bromofluorobenzene	52 UG/KG	83 - 116	84
Dibromofluoromethane	52 UG/KG	83 - 113	96

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK40 PREP BLANK ID :GVBLK40 LCS ID :GVLCS40

LCSD ID :GVLCS40D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB12-(11.0-12.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.005
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:55

% MOISTURE	: 9.608	ANALYST	: RKG
CONTAINER ID .	: UL	DATE ANALYZED	: 12/31/2001
DILUTION	: 1	INSTRUMENT FILE	: G5824.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.04 g
TIME ANALYZED	: 20:17		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.5	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.5	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.5	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.5	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.5	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.5	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.5	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.5	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.5	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.5	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.5	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.5	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.5	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.5	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.5	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.5	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.5	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.5	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.5	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.5	UG/KG	ND	UG/KG	
1-Chlorohexane	5.5	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.5	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.5	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.5	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.5	UG/KG	ND	UG/KG	
Benzene	5.5	UG/KG	ND	UG/KG	
Bromobenzene	5.5	UG/KG	ND	UG/KG	
Bromochloromethane	5.5	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB12-(11.0-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.005
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.5	UG/KG	ND	UG/KG	
Bromoform	5.5	UG/KG	ND	UG/KG	
Bromomethane	5.5	UG/KG	ND	UG/KG	
Carbon disulfide	5.5	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.5	UG/KG	ND	UG/KG	
Chlorobenzene	5.5	UG/KG	ND	UG/KG	
Chloroethane	5.5	UG/KG	ND	UG/KG	
Chloroform	5.5	UG/KG	ND	UG/KG	
Chloromethane	5.5	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.5	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.5	UG/KG	ND	UG/KG	
Dibromochloromethane	5.5	UG/KG	ND	UG/KG	
Dibromomethane	5.5	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.5	UG/KG	ND	UG/KG	
Ethyl benzene	5.5	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.5	UG/KG	ND	UG/KG	
Iodomethane	5.5	UG/KG	ND	UG/KG	
Isopropylbenzene	5.5	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.5	UG/KG	ND	UG/KG	
Methylene chloride	5.5	UG/KG	ND	UG/KG	
n-Butylbenzene	5.5	UG/KG	ND	UG/KG	
n-Propylbenzene	5.5	UG/KG	ND	UG/KG	
Naphthalene	5.5	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.5	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.5	UG/KG	ND	UG/KG	
Styrene	5.5	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.5	UG/KG	ND	UG/KG	
Tetrachloroethene	5.5	UG/KG	ND	UG/KG	
Toluene	5.5	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.5	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.5	UG/KG	ND	UG/KG	
Trichloroethene	5.5	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.5	UG/KG	ND	UG/KG	
Vinyl Acetate	5.5	UG/KG	ND	UG/KG	
Vinyl chloride	5.5	UG/KG	ND	UG/KG	
Xylene (total)	5.5	UG/KG	ND	UG/KG	

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1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB12-(11.0-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.005
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	54.9 UG/KG	85 - 112	99
1,2-Dichloroethane-d4	54.9 UG/KG	77 - 122	96
4-Bromofluorobenzene	54.9 UG/KG	83 - 116	79
Dibromofluoromethane	54.9 UG/KG	83 - 113	100

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK40 PREP BLANK ID :GVBLK40 LCS ID :GVLCS40

LCSD ID :GVLCS40D

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB12-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.006
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

% MOISTURE	: 8.242	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 12/31/2001
DILUTION	: 1	INSTRUMENT FILE	: G5825.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.03 g
TIME ANALYZED	: 20:47		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.4	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.4	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.4	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.4	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.4	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.4	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.4	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.4	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.4	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.4	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.4	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.4	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.4	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.4	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.4	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1-Chlorohexane	5.4	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.4	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.4	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.4	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.4	UG/KG	ND	UG/KG	
Benzene	5.4	UG/KG	ND	UG/KG	
Bromobenzene	5.4	UG/KG	ND	UG/KG	
Bromochloromethane	5.4	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB12-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.006
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.4	UG/KG	ND	UG/KG	
Bromoform	5.4	UG/KG	ND	UG/KG	
Bromomethane	5.4	UG/KG	ND	UG/KG	
Carbon disulfide	5.4	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.4	UG/KG	ND	UG/KG	
Chlorobenzene	5.4	UG/KG	ND	UG/KG	
Chloroethane	5.4	UG/KG	ND	UG/KG	
Chloroform	5.4	UG/KG	ND	UG/KG	
Chloromethane	5.4	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.4	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.4	UG/KG	ND	UG/KG	
Dibromochloromethane	5.4	UG/KG	ND	UG/KG	
Dibromomethane	5.4	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.4	UG/KG	ND	UG/KG	
Ethyl benzene	5.4	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.4	UG/KG	ND	UG/KG	
Iodomethane	5.4	UG/KG	ND	UG/KG	
Isopropylbenzene	5.4	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.4	UG/KG	ND	UG/KG	
Methylene chloride	5.4	UG/KG	ND	UG/KG	
n-Butylbenzene	5.4	UG/KG	ND	UG/KG	
n-Propylbenzene	5.4	UG/KG	ND	UG/KG	
Naphthalene	5.4	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.4	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.4	UG/KG	ND	UG/KG	
Styrene	5.4	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.4	UG/KG	ND	UG/KG	
Tetrachloroethene	5.4	UG/KG	ND	UG/KG	
Toluene	5.4	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.4	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.4	UG/KG	ND	UG/KG	
Trichloroethene	5.4	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.4	UG/KG	ND	UG/KG	
Vinyl Acetate	5.4	UG/KG	ND	UG/KG	
Vinyl chloride	5.4	UG/KG	ND	UG/KG	
Xylene (total)	5.4	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB12-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.006
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	54.2 UG/KG	85 - 112	103
1,2-Dichloroethane-d4	54.2 UG/KG	77 - 122	98
4-Bromofluorobenzene	54.2 UG/KG	83 - 116	80
Dibromofluoromethane	54.2 UG/KG	83 - 113	98

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK40 PREP BLANK ID :GVBLK40 LCS ID :GVLCS40

LCSD ID :GVLCS40D

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB12-(24.5-25.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.007
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:55

% MOISTURE	: 2.06	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 12/31/2001
DILUTION	: 1	INSTRUMENT FILE	: G5826.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.04 g
TIME ANALYZED	: 21:18		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.1	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.1	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.1	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.1	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.1	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.1	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.1	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.1	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.1	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.1	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.1	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.1	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.1	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.1	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.1	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.1	UG/KG	ND	UG/KG	
1-Chlorohexane	5.1	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.1	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.1	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.1	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.1	UG/KG	ND	UG/KG	
Benzene	5.1	UG/KG	ND	UG/KG	
Bromobenzene	5.1	UG/KG	ND	UG/KG	
Bromochloromethane	5.1	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB12-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.007
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.1	UG/KG	ND	UG/KG	
Bromoform	5.1	UG/KG	ND	UG/KG	
Bromomethane	5.1	UG/KG	ND	UG/KG	
Carbon disulfide	5.1	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.1	UG/KG	ND	UG/KG	
Chlorobenzene	5.1	UG/KG	ND	UG/KG	
Chloroethane	5.1	UG/KG	ND	UG/KG	
Chloroform	5.1	UG/KG	ND	UG/KG	
Chloromethane	5.1	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.1	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.1	UG/KG	ND	UG/KG	
Dibromochloromethane	5.1	UG/KG	ND	UG/KG	
Dibromomethane	5.1	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.1	UG/KG	ND	UG/KG	
Ethyl benzene	5.1	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.1	UG/KG	ND	UG/KG	
Iodomethane	5.1	UG/KG	ND	UG/KG	
Isopropylbenzene	5.1	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.1	UG/KG	ND	UG/KG	
Methylene chloride	5.1	UG/KG	ND	UG/KG	
n-Butylbenzene	5.1	UG/KG	ND	UG/KG	
n-Propylbenzene	5.1	UG/KG	ND	UG/KG	
Naphthalene	5.1	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.1	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.1	UG/KG	ND	UG/KG	
Styrene	5.1	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.1	UG/KG	ND	UG/KG	
Tetrachloroethene	5.1	UG/KG	ND	UG/KG	
Toluene	5.1	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.1	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.1	UG/KG	ND	UG/KG	
Trichloroethene	5.1	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.1	UG/KG	ND	UG/KG	
Vinyl Acetate	5.1	UG/KG	ND	UG/KG	
Vinyl chloride	5.1	UG/KG	ND	UG/KG	
Xylene (total)	5.1	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB12-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.007
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50.6 UG/KG	85 - 112	100
1,2-Dichloroethane-d4	50.6 UG/KG	77 - 122	96
4-Bromofluorobenzene	50.6 UG/KG	83 - 116	92
Dibromofluoromethane	50.6 UG/KG	83 - 113	97

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK40 PREP BLANK ID :GVBLK40 LCS ID :GVLCS40

LCSD ID :GVLCS40D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB11-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.008
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

% MOISTURE	: 12.95	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/1/2002
DILUTION	: 1	INSTRUMENT FILE	: G5842.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.06 g
TIME ANALYZED	: 20:27		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.7	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.7	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.7	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.7	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.7	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.7	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.7	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.7	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.7	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.7	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.7	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.7	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.7	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.7	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.7	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.7	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.7	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.7	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.7	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.7	UG/KG	ND	UG/KG	
1-Chlorohexane	5.7	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.7	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.7	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.7	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.7	UG/KG	ND	UG/KG	
Benzene	5.7	UG/KG	ND	UG/KG	
Bromobenzene	5.7	UG/KG	ND	UG/KG	
Bromochloromethane	5.7	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB11-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.008
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.7	UG/KG	ND	UG/KG	
Bromoform	5.7	UG/KG	ND	UG/KG	
Bromomethane	5.7	UG/KG	ND	UG/KG	
Carbon disulfide	5.7	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.7	UG/KG	ND	UG/KG	
Chlorobenzene	5.7	UG/KG	ND	UG/KG	
Chloroethane	5.7	UG/KG	ND	UG/KG	
Chloroform	5.7	UG/KG	ND	UG/KG	
Chloromethane	5.7	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.7	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.7	UG/KG	ND	UG/KG	
Dibromochloromethane	5.7	UG/KG	ND	UG/KG	
Dibromomethane	5.7	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.7	UG/KG	ND	UG/KG	
Ethyl benzene	5.7	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.7	UG/KG	ND	UG/KG	
Iodomethane	5.7	UG/KG	ND	UG/KG	
Isopropylbenzene	5.7	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.7	UG/KG	ND	UG/KG	
Methylene chloride	5.7	UG/KG	ND	UG/KG	
n-Butylbenzene	5.7	UG/KG	ND	UG/KG	
n-Propylbenzene	5.7	UG/KG	ND	UG/KG	
Naphthalene	5.7	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.7	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.7	UG/KG	ND	UG/KG	
Styrene	5.7	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.7	UG/KG	ND	UG/KG	
Tetrachloroethene	5.7	UG/KG	ND	UG/KG	
Toluene	5.7	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.7	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.7	UG/KG	ND	UG/KG	
Trichloroethene	5.7	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.7	UG/KG	ND	UG/KG	
Vinyl Acetate	5.7	UG/KG	ND	UG/KG	
Vinyl chloride	5.7	UG/KG	ND	UG/KG	
Xylene (total)	5.7	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB11-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.008
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	56.7 UG/KG	85 - 112	86
1,2-Dichloroethane-d4	56.7 UG/KG	77 - 122	97
4-Bromofluorobenzene	56.7 UG/KG	83 - 116	85
Dibromofluoromethane	56.7 UG/KG	83 - 113	102

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK41 PREP BLANK ID :GVBLK41 LCS ID :GVLCS41

LCSD ID :GVLCS41D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB11-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.009
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

% MOISTURE	: 11.83	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/1/2002
DILUTION	: 1	INSTRUMENT FILE	: G5843.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.02 g
TIME ANALYZED	: 20:57		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.6	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.6	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.6	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.6	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.6	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.6	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.6	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.6	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.6	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.6	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.6	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.6	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.6	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.6	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.6	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1-Chlorohexane	5.6	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.6	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.6	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.6	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.6	UG/KG	ND	UG/KG	
Benzene	5.6	UG/KG	ND	UG/KG	
Bromobenzene	5.6	UG/KG	ND	UG/KG	
Bromochloromethane	5.6	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB11-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.009
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.6	UG/KG	ND	UG/KG	
Bromoform	5.6	UG/KG	ND	UG/KG	
Bromomethane	5.6	UG/KG	ND	UG/KG	
Carbon disulfide	5.6	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.6	UG/KG	ND	UG/KG	
Chlorobenzene	5.6	UG/KG	ND	UG/KG	
Chloroethane	5.6	UG/KG	ND	UG/KG	
Chloroform	5.6	UG/KG	ND	UG/KG	
Chloromethane	5.6	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.6	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.6	UG/KG	ND	UG/KG	
Dibromochloromethane	5.6	UG/KG	ND	UG/KG	
Dibromomethane	5.6	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.6	UG/KG	ND	UG/KG	
Ethyl benzene	5.6	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.6	UG/KG	ND	UG/KG	
Iodomethane	5.6	UG/KG	ND	UG/KG	
Isopropylbenzene	5.6	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.6	UG/KG	ND	UG/KG	
Methylene chloride	5.6	UG/KG	ND	UG/KG	
n-Butylbenzene	5.6	UG/KG	ND	UG/KG	
n-Propylbenzene	5.6	UG/KG	ND	UG/KG	
Naphthalene	5.6	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.6	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.6	UG/KG	ND	UG/KG	
Styrene	5.6	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.6	UG/KG	ND	UG/KG	
Tetrachloroethene	5.6	UG/KG	ND	UG/KG	
Toluene	5.6	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.6	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.6	UG/KG	ND	UG/KG	
Trichloroethene	5.6	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.6	UG/KG	ND	UG/KG	
Vinyl Acetate	5.6	UG/KG	ND	UG/KG	
Vinyl chloride	5.6	UG/KG	ND	UG/KG	
Xylene (total)	5.6	UG/KG	ND	UG/KG	

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB11-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.009
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	56.5 UG/KG	85 - 112	88
1,2-Dichloroethane-d4	56.5 UG/KG	77 - 122	105
4-Bromofluorobenzene	56.5 UG/KG	83 - 116	115
Dibromofluoromethane	56.5 UG/KG	83 - 113	100

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK41 PREP BLANK ID :GVBLK41 LCS ID :GVLCS41

LCSD ID :GVLCS41D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB11-(5.5-6.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.010
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:55

% MOISTURE	: 7.154	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/1/2002
DILUTION	: 1	INSTRUMENT FILE	: G5844.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.10 g
TIME ANALYZED	: 21:28		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.3	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.3	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.3	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1-Chlorohexane	5.3	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.3	UG/KG	ND	UG/KG	
Benzene	5.3	UG/KG	ND	UG/KG	
Bromobenzene	5.3	UG/KG	ND	UG/KG	
Bromochloromethane	5.3	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB11-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.010
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
Bromodichloromethane	5.3 UG/KG	ND UG/KG	
Bromoform	5.3 UG/KG	ND UG/KG	
Bromomethane	5.3 UG/KG	ND UG/KG	
Carbon disulfide	5.3 UG/KG	ND UG/KG	
Carbon tetrachloride	5.3 UG/KG	ND UG/KG	
Chlorobenzene	5.3 UG/KG	ND UG/KG	
Chloroethane	5.3 UG/KG	ND UG/KG	
Chloroform	5.3 UG/KG	ND UG/KG	
Chloromethane	5.3 UG/KG	ND UG/KG	
cis-1,2-Dichloroethene	5.3 UG/KG	ND UG/KG	
cis-1,3-Dichloropropene	5.3 UG/KG	ND UG/KG	
Dibromochloromethane	5.3 UG/KG	ND UG/KG	
Dibromomethane	5.3 UG/KG	ND UG/KG	
Dichlorodifluoromethane	5.3 UG/KG	ND UG/KG	
Ethyl benzene	5.3 UG/KG	ND UG/KG	
Hexachlorobutadiene	5.3 UG/KG	ND UG/KG	
Iodomethane	5.3 UG/KG	ND UG/KG	
Isopropylbenzene	5.3 UG/KG	ND UG/KG	
Methyl t-Butylether	5.3 UG/KG	ND UG/KG	
Methylene chloride	5.3 UG/KG	ND UG/KG	
n-Butylbenzene	5.3 UG/KG	ND UG/KG	
n-Propylbenzene	5.3 UG/KG	ND UG/KG	
Naphthalene	5.3 UG/KG	ND UG/KG	
p-Isopropyltoluene	5.3 UG/KG	ND UG/KG	
sec-Butylbenzene	5.3 UG/KG	ND UG/KG	
Styrene	5.3 UG/KG	ND UG/KG	
tert-Butylbenzene	5.3 UG/KG	ND UG/KG	
Tetrachloroethene	5.3 UG/KG	ND UG/KG	
Toluene	5.3 UG/KG	ND UG/KG	
trans-1,2-Dichloroethene	5.3 UG/KG	ND UG/KG	
trans-1,3-Dichloropropene	5.3 UG/KG	ND UG/KG	
Trichloroethene	5.3 UG/KG	ND UG/KG	
Trichlorofluoromethane	5.3 UG/KG	ND UG/KG	
Vinyl Acetate	5.3 UG/KG	ND UG/KG	
Vinyl chloride	5.3 UG/KG	ND UG/KG	
Xylene (total)	5.3 UG/KG	ND UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB11-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.010
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	52.8 UG/KG	85 - 112	100
1,2-Dichloroethane-d4	52.8 UG/KG	77 - 122	97
4-Bromofluorobenzene	52.8 UG/KG	83 - 116	108
Dibromofluoromethane	52.8 UG/KG	83 - 113	97

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK41 PREP BLANK ID :GVBLK41 LCS ID :GVLCS41

LCSD ID :GVLCS41D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB11-(11.5-12.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.011
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:55

% MOISTURE	: 6.474	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/1/2002
DILUTION	: 1	INSTRUMENT FILE	: G5845.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.10 g
TIME ANALYZED	: 21:58		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.2	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.2	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.2	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.2	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.2	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.2	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.2	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.2	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.2	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.2	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.2	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.2	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.2	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.2	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.2	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1-Chlorohexane	5.2	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.2	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.2	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.2	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.2	UG/KG	ND	UG/KG	
Benzene	5.2	UG/KG	ND	UG/KG	
Bromobenzene	5.2	UG/KG	ND	UG/KG	
Bromochloromethane	5.2	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB11-(11.5-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.011
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.2	UG/KG	ND	UG/KG	
Bromoform	5.2	UG/KG	ND	UG/KG	
Bromomethane	5.2	UG/KG	ND	UG/KG	
Carbon disulfide	5.2	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.2	UG/KG	ND	UG/KG	
Chlorobenzene	5.2	UG/KG	ND	UG/KG	
Chloroethane	5.2	UG/KG	ND	UG/KG	
Chloroform	5.2	UG/KG	ND	UG/KG	
Chloromethane	5.2	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.2	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.2	UG/KG	ND	UG/KG	
Dibromochloromethane	5.2	UG/KG	ND	UG/KG	
Dibromomethane	5.2	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.2	UG/KG	ND	UG/KG	
Ethyl benzene	5.2	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.2	UG/KG	ND	UG/KG	
Iodomethane	5.2	UG/KG	ND	UG/KG	
Isopropylbenzene	5.2	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.2	UG/KG	ND	UG/KG	
Methylene chloride	5.2	UG/KG	ND	UG/KG	
n-Butylbenzene	5.2	UG/KG	ND	UG/KG	
n-Propylbenzene	5.2	UG/KG	ND	UG/KG	
Naphthalene	5.2	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.2	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.2	UG/KG	ND	UG/KG	
Styrene	5.2	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.2	UG/KG	ND	UG/KG	
Tetrachloroethene	5.2	UG/KG	ND	UG/KG	
Toluene	5.2	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.2	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.2	UG/KG	ND	UG/KG	
Trichloroethene	5.2	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.2	UG/KG	ND	UG/KG	
Vinyl Acetate	5.2	UG/KG	ND	UG/KG	
Vinyl chloride	5.2	UG/KG	ND	UG/KG	
Xylene (total)	5.2	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB11-(11.5-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.011
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	52.4 UG/KG	85 - 112	102
1,2-Dichloroethane-d4	52.4 UG/KG	77 - 122	110
4-Bromofluorobenzene	52.4 UG/KG	83 - 116	97
Dibromofluoromethane	52.4 UG/KG	83 - 113	117

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK41 PREP BLANK ID :GVBLK41 LCS ID :GVLCS41

LCSD ID :GVLCS41D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB11-(19.5-20.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.012
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:55

% MOISTURE	: 2.778	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: G5875.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.04 g
TIME ANALYZED	: 18:31		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.1	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.1	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.1	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.1	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.1	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.1	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.1	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.1	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.1	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.1	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.1	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.1	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.1	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.1	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.1	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.1	UG/KG	ND	UG/KG	
1-Chlorohexane	5.1	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.1	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.1	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.1	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.1	UG/KG	ND	UG/KG	
Benzene	5.1	UG/KG	ND	UG/KG	
Bromobenzene	5.1	UG/KG	ND	UG/KG	
Bromochloromethane	5.1	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB11-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.012
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.1	UG/KG	ND	UG/KG	
Bromoform	5.1	UG/KG	ND	UG/KG	
Bromomethane	5.1	UG/KG	ND	UG/KG	
Carbon disulfide	5.1	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.1	UG/KG	ND	UG/KG	
Chlorobenzene	5.1	UG/KG	ND	UG/KG	
Chloroethane	5.1	UG/KG	ND	UG/KG	
Chloroform	5.1	UG/KG	ND	UG/KG	
Chloromethane	5.1	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.1	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.1	UG/KG	ND	UG/KG	
Dibromochloromethane	5.1	UG/KG	ND	UG/KG	
Dibromomethane	5.1	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.1	UG/KG	ND	UG/KG	
Ethyl benzene	5.1	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.1	UG/KG	ND	UG/KG	
Iodomethane	5.1	UG/KG	ND	UG/KG	
Isopropylbenzene	5.1	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.1	UG/KG	ND	UG/KG	
Methylene chloride	5.1	UG/KG	ND	UG/KG	
n-Butylbenzene	5.1	UG/KG	ND	UG/KG	
n-Propylbenzene	5.1	UG/KG	ND	UG/KG	
Naphthalene	5.1	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.1	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.1	UG/KG	ND	UG/KG	
Styrene	5.1	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.1	UG/KG	ND	UG/KG	
Tetrachloroethene	5.1	UG/KG	ND	UG/KG	
Toluene	5.1	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.1	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.1	UG/KG	ND	UG/KG	
Trichloroethene	5.1	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.1	UG/KG	ND	UG/KG	
Vinyl Acetate	5.1	UG/KG	ND	UG/KG	
Vinyl chloride	5.1	UG/KG	ND	UG/KG	
Xylene (total)	5.1	UG/KG	ND	UG/KG	

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB11-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.012
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	51 UG/KG	85 - 112	107
1,2-Dichloroethane-d4	51 UG/KG	77 - 122	103
4-Bromofluorobenzene	51 UG/KG	83 - 116	106
Dibromofluoromethane	51 UG/KG	83 - 113	107

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK42 PREP BLANK ID :GVBLK42 LCS ID :GVLCS42

LCSD ID :GVLCS42D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB11-(24.5-25.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.013
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:55

% MOISTURE	: 2.435	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/1/2002
DILUTION	: 1	INSTRUMENT FILE	: G5847.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.01 g
TIME ANALYZED	: 23:00		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.1	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.1	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.1	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.1	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.1	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.1	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.1	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.1	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.1	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.1	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.1	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.1	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.1	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.1	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.1	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.1	UG/KG	ND	UG/KG	
1-Chlorohexane	5.1	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.1	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.1	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.1	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.1	UG/KG	ND	UG/KG	
Benzene	5.1	UG/KG	ND	UG/KG	
Bromobenzene	5.1	UG/KG	ND	UG/KG	
Bromochloromethane	5.1	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB11-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.013
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.1	UG/KG	ND	UG/KG	
Bromoform	5.1	UG/KG	ND	UG/KG	
Bromomethane	5.1	UG/KG	ND	UG/KG	
Carbon disulfide	5.1	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.1	UG/KG	ND	UG/KG	
Chlorobenzene	5.1	UG/KG	ND	UG/KG	
Chloroethane	5.1	UG/KG	ND	UG/KG	
Chloroform	5.1	UG/KG	ND	UG/KG	
Chloromethane	5.1	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.1	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.1	UG/KG	ND	UG/KG	
Dibromochloromethane	5.1	UG/KG	ND	UG/KG	
Dibromomethane	5.1	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.1	UG/KG	ND	UG/KG	
Ethyl benzene	5.1	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.1	UG/KG	ND	UG/KG	
Iodomethane	5.1	UG/KG	ND	UG/KG	
Isopropylbenzene	5.1	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.1	UG/KG	ND	UG/KG	
Methylene chloride	5.1	UG/KG	ND	UG/KG	
n-Butylbenzene	5.1	UG/KG	ND	UG/KG	
n-Propylbenzene	5.1	UG/KG	ND	UG/KG	
Naphthalene	5.1	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.1	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.1	UG/KG	ND	UG/KG	
Styrene	5.1	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.1	UG/KG	ND	UG/KG	
Tetrachloroethene	5.1	UG/KG	ND	UG/KG	
Toluene	5.1	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.1	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.1	UG/KG	ND	UG/KG	
Trichloroethene	5.1	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.1	UG/KG	ND	UG/KG	
Vinyl Acetate	5.1	UG/KG	ND	UG/KG	
Vinyl chloride	5.1	UG/KG	ND	UG/KG	
Xylene (total)	5.1	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB11-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.013
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	51.1 UG/KG	85 - 112	94
1,2-Dichloroethane-d4	51.1 UG/KG	77 - 122	110
4-Bromofluorobenzene	51.1 UG/KG	83 - 116	90
Dibromofluoromethane	51.1 UG/KG	83 - 113	113

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK41 PREP BLANK ID :GVBLK41 LCS ID :GVLCS41

LCSD ID :GVLCS41D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB04-(1.5-2.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.014
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:55

% MOISTURE	: 9.49	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/1/2002
DILUTION	: 1	INSTRUMENT FILE	: G5848.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.07 g
TIME ANALYZED	: 23:30		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.4	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.4	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.4	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.4	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.4	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.4	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.4	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.4	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.4	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.4	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.4	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.4	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.4	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.4	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.4	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1-Chlorohexane	5.4	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.4	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.4	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.4	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.4	UG/KG	ND	UG/KG	
Benzene	5.4	UG/KG	ND	UG/KG	
Bromobenzene	5.4	UG/KG	ND	UG/KG	
Bromochloromethane	5.4	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB04-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.014
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.4	UG/KG	ND	UG/KG	
Bromoform	5.4	UG/KG	ND	UG/KG	
Bromomethane	5.4	UG/KG	ND	UG/KG	
Carbon disulfide	5.4	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.4	UG/KG	ND	UG/KG	
Chlorobenzene	5.4	UG/KG	ND	UG/KG	
Chloroethane	5.4	UG/KG	ND	UG/KG	
Chloroform	5.4	UG/KG	ND	UG/KG	
Chloromethane	5.4	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.4	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.4	UG/KG	ND	UG/KG	
Dibromochloromethane	5.4	UG/KG	ND	UG/KG	
Dibromomethane	5.4	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.4	UG/KG	ND	UG/KG	
Ethyl benzene	5.4	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.4	UG/KG	ND	UG/KG	
Iodomethane	5.4	UG/KG	ND	UG/KG	
Isopropylbenzene	5.4	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.4	UG/KG	ND	UG/KG	
Methylene chloride	5.4	UG/KG	ND	UG/KG	
n-Butylbenzene	5.4	UG/KG	ND	UG/KG	
n-Propylbenzene	5.4	UG/KG	ND	UG/KG	
Naphthalene	5.4	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.4	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.4	UG/KG	ND	UG/KG	
Styrene	5.4	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.4	UG/KG	ND	UG/KG	
Tetrachloroethene	5.4	UG/KG	ND	UG/KG	
Toluene	5.4	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.4	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.4	UG/KG	ND	UG/KG	
Trichloroethene	5.4	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.4	UG/KG	ND	UG/KG	
Vinyl Acetate	5.4	UG/KG	ND	UG/KG	
Vinyl chloride	5.4	UG/KG	ND	UG/KG	
Xylene (total)	5.4	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB04-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.014
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	54.5 UG/KG	85 - 112	102
1,2-Dichloroethane-d4	54.5 UG/KG	77 - 122	98
4-Bromofluorobenzene	54.5 UG/KG	83 - 116	105
Dibromofluoromethane	54.5 UG/KG	83 - 113	101

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK41 PREP BLANK ID :GVBLK41 LCS ID :GVLCS41

LCSD ID :GVLCS41D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB04-(3.5-4.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.015
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:55

% MOISTURE	: 7.308	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: G5849.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.03 g
TIME ANALYZED	: 00:00		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.4	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.4	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.4	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.4	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.4	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.4	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.4	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.4	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.4	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.4	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.4	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.4	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.4	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.4	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.4	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1-Chlorohexane	5.4	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.4	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.4	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.4	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.4	UG/KG	ND	UG/KG	
Benzene	5.4	UG/KG	ND	UG/KG	
Bromobenzene	5.4	UG/KG	ND	UG/KG	
Bromochloromethane	5.4	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB04-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.015
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.4	UG/KG	ND	UG/KG	
Bromoform	5.4	UG/KG	ND	UG/KG	
Bromomethane	5.4	UG/KG	ND	UG/KG	
Carbon disulfide	5.4	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.4	UG/KG	ND	UG/KG	
Chlorobenzene	5.4	UG/KG	ND	UG/KG	
Chloroethane	5.4	UG/KG	ND	UG/KG	
Chloroform	5.4	UG/KG	ND	UG/KG	
Chloromethane	5.4	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.4	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.4	UG/KG	ND	UG/KG	
Dibromochloromethane	5.4	UG/KG	ND	UG/KG	
Dibromomethane	5.4	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.4	UG/KG	ND	UG/KG	
Ethyl benzene	5.4	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.4	UG/KG	ND	UG/KG	
Iodomethane	5.4	UG/KG	ND	UG/KG	
Isopropylbenzene	5.4	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.4	UG/KG	ND	UG/KG	
Methylene chloride	5.4	UG/KG	ND	UG/KG	
n-Butylbenzene	5.4	UG/KG	ND	UG/KG	
n-Propylbenzene	5.4	UG/KG	ND	UG/KG	
Naphthalene	5.4	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.4	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.4	UG/KG	ND	UG/KG	
Styrene	5.4	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.4	UG/KG	ND	UG/KG	
Tetrachloroethene	5.4	UG/KG	ND	UG/KG	
Toluene	5.4	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.4	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.4	UG/KG	ND	UG/KG	
Trichloroethene	5.4	UG/KG	3.2	UG/KG	J
Trichlorofluoromethane	5.4	UG/KG	ND	UG/KG	
Vinyl Acetate	5.4	UG/KG	ND	UG/KG	
Vinyl chloride	5.4	UG/KG	ND	UG/KG	
Xylene (total)	5.4	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB04-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.015
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	53.6 UG/KG	85 - 112	99
1,2-Dichloroethane-d4	53.6 UG/KG	77 - 122	94
4-Bromofluorobenzene	53.6 UG/KG	83 - 116	98
Dibromofluoromethane	53.6 UG/KG	83 - 113	98

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK41 PREP BLANK ID :GVBLK41 LCS ID :GVLCS41

LCSD ID :GVLCS41D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB04-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.016
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

% MOISTURE	: 12.46	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: G5876.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.09 g
TIME ANALYZED	: 19:01		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.6	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.6	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.6	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.6	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.6	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.6	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.6	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.6	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.6	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.6	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.6	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.6	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.6	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.6	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.6	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1-Chlorohexane	5.6	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.6	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.6	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.6	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.6	UG/KG	ND	UG/KG	
Benzene	5.6	UG/KG	ND	UG/KG	
Bromobenzene	5.6	UG/KG	ND	UG/KG	
Bromochloromethane	5.6	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB04-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.016
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.6	UG/KG	ND	UG/KG	
Bromoform	5.6	UG/KG	ND	UG/KG	
Bromomethane	5.6	UG/KG	ND	UG/KG	
Carbon disulfide	5.6	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.6	UG/KG	ND	UG/KG	
Chlorobenzene	5.6	UG/KG	ND	UG/KG	
Chloroethane	5.6	UG/KG	ND	UG/KG	
Chloroform	5.6	UG/KG	ND	UG/KG	
Chloromethane	5.6	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.6	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.6	UG/KG	ND	UG/KG	
Dibromochloromethane	5.6	UG/KG	ND	UG/KG	
Dibromomethane	5.6	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.6	UG/KG	ND	UG/KG	
Ethyl benzene	5.6	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.6	UG/KG	ND	UG/KG	
Iodomethane	5.6	UG/KG	ND	UG/KG	
Isopropylbenzene	5.6	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.6	UG/KG	ND	UG/KG	
Methylene chloride	5.6	UG/KG	ND	UG/KG	
n-Butylbenzene	5.6	UG/KG	ND	UG/KG	
n-Propylbenzene	5.6	UG/KG	ND	UG/KG	
Naphthalene	5.6	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.6	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.6	UG/KG	ND	UG/KG	
Styrene	5.6	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.6	UG/KG	ND	UG/KG	
Tetrachloroethene	5.6	UG/KG	ND	UG/KG	
Toluene	5.6	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.6	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.6	UG/KG	ND	UG/KG	
Trichloroethene	5.6	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.6	UG/KG	ND	UG/KG	
Vinyl Acetate	5.6	UG/KG	ND	UG/KG	
Vinyl chloride	5.6	UG/KG	ND	UG/KG	
Xylene (total)	5.6	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB04-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.016
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	56.1 UG/KG	85 - 112	92
1,2-Dichloroethane-d4	56.1 UG/KG	77 - 122	111
4-Bromofluorobenzene	56.1 UG/KG	83 - 116	77
Dibromofluoromethane	56.1 UG/KG	83 - 113	120

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK42 PREP BLANK ID :GVBLK42 LCS ID :GVLCS42

LCSD ID :GVLCS42D

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB04-(11.0-12.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.017
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:55

% MOISTURE	: 7.463	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: G5851.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.01 g
TIME ANALYZED	: 1:01		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.4	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.4	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.4	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.4	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.4	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.4	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.4	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.4	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.4	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.4	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.4	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.4	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.4	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.4	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.4	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1-Chlorohexane	5.4	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.4	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.4	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.4	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.4	UG/KG	ND	UG/KG	
Benzene	5.4	UG/KG	ND	UG/KG	
Bromobenzene	5.4	UG/KG	ND	UG/KG	
Bromochloromethane	5.4	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB04-(11.0-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.017
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.4	UG/KG	ND	UG/KG	
Bromoform	5.4	UG/KG	ND	UG/KG	
Bromomethane	5.4	UG/KG	ND	UG/KG	
Carbon disulfide	5.4	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.4	UG/KG	ND	UG/KG	
Chlorobenzene	5.4	UG/KG	ND	UG/KG	
Chloroethane	5.4	UG/KG	ND	UG/KG	
Chloroform	5.4	UG/KG	ND	UG/KG	
Chloromethane	5.4	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.4	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.4	UG/KG	ND	UG/KG	
Dibromochloromethane	5.4	UG/KG	ND	UG/KG	
Dibromomethane	5.4	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.4	UG/KG	ND	UG/KG	
Ethyl benzene	5.4	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.4	UG/KG	ND	UG/KG	
Iodomethane	5.4	UG/KG	ND	UG/KG	
Isopropylbenzene	5.4	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.4	UG/KG	ND	UG/KG	
Methylene chloride	5.4	UG/KG	ND	UG/KG	
n-Butylbenzene	5.4	UG/KG	ND	UG/KG	
n-Propylbenzene	5.4	UG/KG	ND	UG/KG	
Naphthalene	5.4	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.4	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.4	UG/KG	ND	UG/KG	
Styrene	5.4	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.4	UG/KG	ND	UG/KG	
Tetrachloroethene	5.4	UG/KG	ND	UG/KG	
Toluene	5.4	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.4	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.4	UG/KG	ND	UG/KG	
Trichloroethene	5.4	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.4	UG/KG	ND	UG/KG	
Vinyl Acetate	5.4	UG/KG	ND	UG/KG	
Vinyl chloride	5.4	UG/KG	ND	UG/KG	
Xylene (total)	5.4	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB04-(11.0-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.017
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	53.9 UG/KG	85 - 112	100
1,2-Dichloroethane-d4	53.9 UG/KG	77 - 122	97
4-Bromofluorobenzene	53.9 UG/KG	83 - 116	101
Dibromofluoromethane	53.9 UG/KG	83 - 113	99

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK41 PREP BLANK ID :GVBLK41 LCS ID :GVLCS41

LCSD ID :GVLCS41D

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1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB04-(19.5-20.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.018
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:55

% MOISTURE	: 5.472	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: G5852.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.11 g
TIME ANALYZED	: 1:32		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.2	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.2	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.2	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.2	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.2	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.2	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.2	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.2	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.2	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.2	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.2	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.2	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.2	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.2	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.2	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1-Chlorohexane	5.2	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.2	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.2	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.2	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.2	UG/KG	ND	UG/KG	
Benzene	5.2	UG/KG	ND	UG/KG	
Bromobenzene	5.2	UG/KG	ND	UG/KG	
Bromochloromethane	5.2	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB04-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.018
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.2	UG/KG	ND	UG/KG	
Bromoform	5.2	UG/KG	ND	UG/KG	
Bromomethane	5.2	UG/KG	ND	UG/KG	
Carbon disulfide	5.2	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.2	UG/KG	ND	UG/KG	
Chlorobenzene	5.2	UG/KG	ND	UG/KG	
Chloroethane	5.2	UG/KG	ND	UG/KG	
Chloroform	5.2	UG/KG	ND	UG/KG	
Chloromethane	5.2	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.2	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.2	UG/KG	ND	UG/KG	
Dibromochloromethane	5.2	UG/KG	ND	UG/KG	
Dibromomethane	5.2	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.2	UG/KG	ND	UG/KG	
Ethyl benzene	5.2	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.2	UG/KG	ND	UG/KG	
Iodomethane	5.2	UG/KG	ND	UG/KG	
Isopropylbenzene	5.2	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.2	UG/KG	ND	UG/KG	
Methylene chloride	5.2	UG/KG	ND	UG/KG	
n-Butylbenzene	5.2	UG/KG	ND	UG/KG	
n-Propylbenzene	5.2	UG/KG	ND	UG/KG	
Naphthalene	5.2	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.2	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.2	UG/KG	ND	UG/KG	
Styrene	5.2	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.2	UG/KG	ND	UG/KG	
Tetrachloroethene	5.2	UG/KG	ND	UG/KG	
Toluene	5.2	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.2	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.2	UG/KG	ND	UG/KG	
Trichloroethene	5.2	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.2	UG/KG	ND	UG/KG	
Vinyl Acetate	5.2	UG/KG	ND	UG/KG	
Vinyl chloride	5.2	UG/KG	ND	UG/KG	
Xylene (total)	5.2	UG/KG	ND	UG/KG	

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB04-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.018
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	51.7 UG/KG	85 - 112	94
1,2-Dichloroethane-d4	51.7 UG/KG	77 - 122	108
4-Bromofluorobenzene	51.7 UG/KG	83 - 116	121
Dibromofluoromethane	51.7 UG/KG	83 - 113	98

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK41 PREP BLANK ID :GVBLK41 LCS ID :GVLCS41

LCSD ID :GVLCS41D

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB04-(24.5-25.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.019
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:55

% MOISTURE	: 3.035	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: G5853.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.05 g
TIME ANALYZED	: 2:02		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.1	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.1	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.1	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.1	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.1	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.1	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.1	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.1	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.1	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.1	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.1	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.1	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.1	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.1	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.1	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.1	UG/KG	ND	UG/KG	
1-Chlorohexane	5.1	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.1	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.1	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.1	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.1	UG/KG	ND	UG/KG	
Benzene	5.1	UG/KG	ND	UG/KG	
Bromobenzene	5.1	UG/KG	ND	UG/KG	
Bromochloromethane	5.1	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB04-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.019
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.1	UG/KG	ND	UG/KG	
Bromoform	5.1	UG/KG	ND	UG/KG	
Bromomethane	5.1	UG/KG	ND	UG/KG	
Carbon disulfide	5.1	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.1	UG/KG	ND	UG/KG	
Chlorobenzene	5.1	UG/KG	ND	UG/KG	
Chloroethane	5.1	UG/KG	ND	UG/KG	
Chloroform	5.1	UG/KG	ND	UG/KG	
Chloromethane	5.1	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.1	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.1	UG/KG	ND	UG/KG	
Dibromochloromethane	5.1	UG/KG	ND	UG/KG	
Dibromomethane	5.1	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.1	UG/KG	ND	UG/KG	
Ethyl benzene	5.1	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.1	UG/KG	ND	UG/KG	
Iodomethane	5.1	UG/KG	ND	UG/KG	
Isopropylbenzene	5.1	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.1	UG/KG	ND	UG/KG	
Methylene chloride	5.1	UG/KG	ND	UG/KG	
n-Butylbenzene	5.1	UG/KG	ND	UG/KG	
n-Propylbenzene	5.1	UG/KG	ND	UG/KG	
Naphthalene	5.1	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.1	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.1	UG/KG	ND	UG/KG	
Styrene	5.1	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.1	UG/KG	ND	UG/KG	
Tetrachloroethene	5.1	UG/KG	ND	UG/KG	
Toluene	5.1	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.1	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.1	UG/KG	ND	UG/KG	
Trichloroethene	5.1	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.1	UG/KG	ND	UG/KG	
Vinyl Acetate	5.1	UG/KG	ND	UG/KG	
Vinyl chloride	5.1	UG/KG	ND	UG/KG	
Xylene (total)	5.1	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB04-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.019
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	51 UG/KG	85 - 112	104
1,2-Dichloroethane-d4	51 UG/KG	77 - 122	95
4-Bromofluorobenzene	51 UG/KG	83 - 116	106
Dibromofluoromethane	51 UG/KG	83 - 113	100

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK41 PREP BLANK ID :GVBLK41 LCS ID :GVLCS41

LCSD ID :GVLCS41D

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB03-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.020
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

% MOISTURE	: 11.66	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: G5854.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.09 g
TIME ANALYZED	: 2:33		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.6	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.6	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.6	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.6	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.6	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.6	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.6	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.6	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.6	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.6	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.6	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.6	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.6	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.6	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.6	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1-Chlorohexane	5.6	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.6	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.6	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.6	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.6	UG/KG	ND	UG/KG	
Benzene	5.6	UG/KG	ND	UG/KG	
Bromobenzene	5.6	UG/KG	ND	UG/KG	
Bromochloromethane	5.6	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB03-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.020
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.6	UG/KG	ND	UG/KG	
Bromoform	5.6	UG/KG	ND	UG/KG	
Bromomethane	5.6	UG/KG	ND	UG/KG	
Carbon disulfide	5.6	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.6	UG/KG	ND	UG/KG	
Chlorobenzene	5.6	UG/KG	ND	UG/KG	
Chloroethane	5.6	UG/KG	ND	UG/KG	
Chloroform	5.6	UG/KG	ND	UG/KG	
Chloromethane	5.6	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.6	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.6	UG/KG	ND	UG/KG	
Dibromochloromethane	5.6	UG/KG	ND	UG/KG	
Dibromomethane	5.6	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.6	UG/KG	ND	UG/KG	
Ethyl benzene	5.6	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.6	UG/KG	ND	UG/KG	
Iodomethane	5.6	UG/KG	ND	UG/KG	
Isopropylbenzene	5.6	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.6	UG/KG	ND	UG/KG	
Methylene chloride	5.6	UG/KG	ND	UG/KG	
n-Butylbenzene	5.6	UG/KG	ND	UG/KG	
n-Propylbenzene	5.6	UG/KG	ND	UG/KG	
Naphthalene	5.6	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.6	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.6	UG/KG	ND	UG/KG	
Styrene	5.6	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.6	UG/KG	ND	UG/KG	
Tetrachloroethene	5.6	UG/KG	ND	UG/KG	
Toluene	5.6	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.6	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.6	UG/KG	ND	UG/KG	
Trichloroethene	5.6	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.6	UG/KG	ND	UG/KG	
Vinyl Acetate	5.6	UG/KG	ND	UG/KG	
Vinyl chloride	5.6	UG/KG	ND	UG/KG	
Xylene (total)	5.6	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB03-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.020
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	55.6 UG/KG	85 - 112	94
1,2-Dichloroethane-d4	55.6 UG/KG	77 - 122	113
4-Bromofluorobenzene	55.6 UG/KG	83 - 116	90
Dibromofluoromethane	55.6 UG/KG	83 - 113	117

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK41 PREP BLANK ID :GVBLK41 LCS ID :GVLCS41

LCSD ID :GVLCS41D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB03-(3.5-4.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.021
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:55

% MOISTURE	: 9.193	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: G5855.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.02 g
TIME ANALYZED	: 3:03		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.5	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.5	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.5	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.5	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.5	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.5	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.5	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.5	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.5	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.5	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.5	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.5	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.5	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.5	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.5	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.5	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.5	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.5	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.5	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.5	UG/KG	ND	UG/KG	
1-Chlorohexane	5.5	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.5	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.5	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.5	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.5	UG/KG	ND	UG/KG	
Benzene	5.5	UG/KG	ND	UG/KG	
Bromobenzene	5.5	UG/KG	ND	UG/KG	
Bromochloromethane	5.5	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB03-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.021
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.5	UG/KG	ND	UG/KG	
Bromoform	5.5	UG/KG	ND	UG/KG	
Bromomethane	5.5	UG/KG	ND	UG/KG	
Carbon disulfide	5.5	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.5	UG/KG	ND	UG/KG	
Chlorobenzene	5.5	UG/KG	ND	UG/KG	
Chloroethane	5.5	UG/KG	ND	UG/KG	
Chloroform	5.5	UG/KG	ND	UG/KG	
Chloromethane	5.5	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.5	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.5	UG/KG	ND	UG/KG	
Dibromochloromethane	5.5	UG/KG	ND	UG/KG	
Dibromomethane	5.5	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.5	UG/KG	ND	UG/KG	
Ethyl benzene	5.5	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.5	UG/KG	ND	UG/KG	
Iodomethane	5.5	UG/KG	ND	UG/KG	
Isopropylbenzene	5.5	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.5	UG/KG	ND	UG/KG	
Methylene chloride	5.5	UG/KG	ND	UG/KG	
n-Butylbenzene	5.5	UG/KG	ND	UG/KG	
n-Propylbenzene	5.5	UG/KG	ND	UG/KG	
Naphthalene	5.5	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.5	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.5	UG/KG	ND	UG/KG	
Styrene	5.5	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.5	UG/KG	ND	UG/KG	
Tetrachloroethene	5.5	UG/KG	ND	UG/KG	
Toluene	5.5	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.5	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.5	UG/KG	ND	UG/KG	
Trichloroethene	5.5	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.5	UG/KG	ND	UG/KG	
Vinyl Acetate	5.5	UG/KG	ND	UG/KG	
Vinyl chloride	5.5	UG/KG	ND	UG/KG	
Xylene (total)	5.5	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB03-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.021
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	54.8 UG/KG	85 - 112	99
1,2-Dichloroethane-d4	54.8 UG/KG	77 - 122	115
4-Bromofluorobenzene	54.8 UG/KG	83 - 116	97
Dibromofluoromethane	54.8 UG/KG	83 - 113	115

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK41 PREP BLANK ID :GVBLK41 LCS ID :GVLCS41

LCSD ID :GVLCS41D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB03-(5.5-6.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.022
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:55

% MOISTURE	: 6.387	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: G5856.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.03 g
TIME ANALYZED	: 3:34		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.3	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.3	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.3	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1-Chlorohexane	5.3	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.3	UG/KG	ND	UG/KG	
Benzene	5.3	UG/KG	ND	UG/KG	
Bromobenzene	5.3	UG/KG	ND	UG/KG	
Bromochloromethane	5.3	UG/KG	ND	UG/KG	

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1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB03-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.022
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.3	UG/KG	ND	UG/KG	
Bromoform	5.3	UG/KG	ND	UG/KG	
Bromomethane	5.3	UG/KG	ND	UG/KG	
Carbon disulfide	5.3	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.3	UG/KG	ND	UG/KG	
Chlorobenzene	5.3	UG/KG	ND	UG/KG	
Chloroethane	5.3	UG/KG	ND	UG/KG	
Chloroform	5.3	UG/KG	ND	UG/KG	
Chloromethane	5.3	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Dibromochloromethane	5.3	UG/KG	ND	UG/KG	
Dibromomethane	5.3	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.3	UG/KG	ND	UG/KG	
Ethyl benzene	5.3	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.3	UG/KG	ND	UG/KG	
Iodomethane	5.3	UG/KG	ND	UG/KG	
Isopropylbenzene	5.3	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.3	UG/KG	ND	UG/KG	
Methylene chloride	5.3	UG/KG	ND	UG/KG	
n-Butylbenzene	5.3	UG/KG	ND	UG/KG	
n-Propylbenzene	5.3	UG/KG	ND	UG/KG	
Naphthalene	5.3	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.3	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Styrene	5.3	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Tetrachloroethene	5.3	UG/KG	ND	UG/KG	
Toluene	5.3	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Trichloroethene	5.3	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.3	UG/KG	ND	UG/KG	
Vinyl Acetate	5.3	UG/KG	ND	UG/KG	
Vinyl chloride	5.3	UG/KG	ND	UG/KG	
Xylene (total)	5.3	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB03-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.022
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	53.1 UG/KG	85 - 112	107
1,2-Dichloroethane-d4	53.1 UG/KG	77 - 122	97
4-Bromofluorobenzene	53.1 UG/KG	83 - 116	103
Dibromofluoromethane	53.1 UG/KG	83 - 113	99

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK41 PREP BLANK ID :GVBLK41 LCS ID :GVLCS41

LCSD ID :GVLCS41D

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB03-(11.5-12.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.023
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:55

% MOISTURE	: 7.4	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: G5877.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.04 g
TIME ANALYZED	: 19:31		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.3	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.3	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.3	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1-Chlorohexane	5.3	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.3	UG/KG	ND	UG/KG	
Benzene	5.3	UG/KG	ND	UG/KG	
Bromobenzene	5.3	UG/KG	ND	UG/KG	
Bromochloromethane	5.3	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB03-(11.5-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.023
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.3	UG/KG	ND	UG/KG	
Bromoform	5.3	UG/KG	ND	UG/KG	
Bromomethane	5.3	UG/KG	ND	UG/KG	
Carbon disulfide	5.3	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.3	UG/KG	ND	UG/KG	
Chlorobenzene	5.3	UG/KG	ND	UG/KG	
Chloroethane	5.3	UG/KG	ND	UG/KG	
Chloroform	5.3	UG/KG	ND	UG/KG	
Chloromethane	5.3	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Dibromochloromethane	5.3	UG/KG	ND	UG/KG	
Dibromomethane	5.3	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.3	UG/KG	ND	UG/KG	
Ethyl benzene	5.3	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.3	UG/KG	ND	UG/KG	
Iodomethane	5.3	UG/KG	ND	UG/KG	
Isopropylbenzene	5.3	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.3	UG/KG	ND	UG/KG	
Methylene chloride	5.3	UG/KG	ND	UG/KG	
n-Butylbenzene	5.3	UG/KG	ND	UG/KG	
n-Propylbenzene	5.3	UG/KG	ND	UG/KG	
Naphthalene	5.3	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.3	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Styrene	5.3	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Tetrachloroethene	5.3	UG/KG	ND	UG/KG	
Toluene	5.3	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Trichloroethene	5.3	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.3	UG/KG	ND	UG/KG	
Vinyl Acetate	5.3	UG/KG	ND	UG/KG	
Vinyl chloride	5.3	UG/KG	ND	UG/KG	
Xylene (total)	5.3	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB03-(11.5-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.023
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	53.6 UG/KG	85 - 112	99
1,2-Dichloroethane-d4	53.6 UG/KG	77 - 122	99
4-Bromofluorobenzene	53.6 UG/KG	83 - 116	99
Dibromofluoromethane	53.6 UG/KG	83 - 113	102

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK42 PREP BLANK ID :GVBLK42 LCS ID :GVLCS42

LCSD ID :GVLCS42D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB03-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.024
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

% MOISTURE	: 16.71	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: G5857.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.12 g
TIME ANALYZED	: 4:04		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.9	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.9	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.9	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.9	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.9	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.9	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.9	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.9	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.9	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.9	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.9	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.9	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.9	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.9	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.9	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.9	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.9	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.9	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.9	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.9	UG/KG	ND	UG/KG	
1-Chlorohexane	5.9	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.9	UG/KG	ND	UG/KG	
2-Butanone	12	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	12	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.9	UG/KG	ND	UG/KG	
2-Hexanone	12	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.9	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	12	UG/KG	ND	UG/KG	
Acetone	12	UG/KG	ND	UG/KG	
Acrylonitrile	5.9	UG/KG	ND	UG/KG	
Benzene	5.9	UG/KG	ND	UG/KG	
Bromobenzene	5.9	UG/KG	ND	UG/KG	
Bromochloromethane	5.9	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB03-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.024
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.9	UG/KG	ND	UG/KG	
Bromoform	5.9	UG/KG	ND	UG/KG	
Bromomethane	5.9	UG/KG	ND	UG/KG	
Carbon disulfide	5.9	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.9	UG/KG	ND	UG/KG	
Chlorobenzene	5.9	UG/KG	ND	UG/KG	
Chloroethane	5.9	UG/KG	ND	UG/KG	
Chloroform	5.9	UG/KG	ND	UG/KG	
Chloromethane	5.9	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.9	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.9	UG/KG	ND	UG/KG	
Dibromochloromethane	5.9	UG/KG	ND	UG/KG	
Dibromomethane	5.9	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.9	UG/KG	ND	UG/KG	
Ethyl benzene	5.9	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.9	UG/KG	ND	UG/KG	
Iodomethane	5.9	UG/KG	ND	UG/KG	
Isopropylbenzene	5.9	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.9	UG/KG	ND	UG/KG	
Methylene chloride	5.9	UG/KG	ND	UG/KG	
n-Butylbenzene	5.9	UG/KG	ND	UG/KG	
n-Propylbenzene	5.9	UG/KG	ND	UG/KG	
Naphthalene	5.9	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.9	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.9	UG/KG	ND	UG/KG	
Styrene	5.9	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.9	UG/KG	ND	UG/KG	
Tetrachloroethene	5.9	UG/KG	ND	UG/KG	
Toluene	5.9	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.9	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.9	UG/KG	ND	UG/KG	
Trichloroethene	5.9	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.9	UG/KG	ND	UG/KG	
Vinyl Acetate	5.9	UG/KG	ND	UG/KG	
Vinyl chloride	5.9	UG/KG	ND	UG/KG	
Xylene (total)	5.9	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB03-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.024
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	58.6 UG/KG	85 - 112	104
1,2-Dichloroethane-d4	58.6 UG/KG	77 - 122	108
4-Bromofluorobenzene	58.6 UG/KG	83 - 116	98
Dibromofluoromethane	58.6 UG/KG	83 - 113	119

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK41 PREP BLANK ID :GVBLK41 LCS ID :GVLCS41

LCSD ID :GVLCS41D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB03-(24.0-25.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.025
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:55

% MOISTURE	: 5.646	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: G5866.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.02 g
TIME ANALYZED	: 13:58		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.3	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.3	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.3	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1-Chlorohexane	5.3	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.3	UG/KG	ND	UG/KG	
Benzene	5.3	UG/KG	ND	UG/KG	
Bromobenzene	5.3	UG/KG	ND	UG/KG	
Bromochloromethane	5.3	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB03-(24.0-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.025
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.3	UG/KG	ND	UG/KG	
Bromoform	5.3	UG/KG	ND	UG/KG	
Bromomethane	5.3	UG/KG	ND	UG/KG	
Carbon disulfide	5.3	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.3	UG/KG	ND	UG/KG	
Chlorobenzene	5.3	UG/KG	ND	UG/KG	
Chloroethane	5.3	UG/KG	ND	UG/KG	
Chloroform	5.3	UG/KG	ND	UG/KG	
Chloromethane	5.3	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Dibromochloromethane	5.3	UG/KG	ND	UG/KG	
Dibromomethane	5.3	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.3	UG/KG	ND	UG/KG	
Ethyl benzene	5.3	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.3	UG/KG	ND	UG/KG	
Iodomethane	5.3	UG/KG	ND	UG/KG	
Isopropylbenzene	5.3	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.3	UG/KG	ND	UG/KG	
Methylene chloride	5.3	UG/KG	ND	UG/KG	
n-Butylbenzene	5.3	UG/KG	ND	UG/KG	
n-Propylbenzene	5.3	UG/KG	ND	UG/KG	
Naphthalene	5.3	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.3	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Styrene	5.3	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Tetrachloroethene	5.3	UG/KG	ND	UG/KG	
Toluene	5.3	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Trichloroethene	5.3	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.3	UG/KG	ND	UG/KG	
Vinyl Acetate	5.3	UG/KG	ND	UG/KG	
Vinyl chloride	5.3	UG/KG	ND	UG/KG	
Xylene (total)	5.3	UG/KG	ND	UG/KG	

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB03-(24.0-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.025
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	52.8 UG/KG	85 - 112	92
1,2-Dichloroethane-d4	52.8 UG/KG	77 - 122	94
4-Bromofluorobenzene	52.8 UG/KG	83 - 116	86
Dibromofluoromethane	52.8 UG/KG	83 - 113	95

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK42 PREP BLANK ID :GVBLK42 LCS ID :GVLCS42

LCSD ID :GVLCS42D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB02-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.026
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

% MOISTURE	: 13.16	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: G5867.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.10 g
TIME ANALYZED	: 14:28		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.6	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.6	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.6	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.6	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.6	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.6	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.6	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.6	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.6	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.6	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.6	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.6	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.6	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.6	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.6	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1-Chlorohexane	5.6	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.6	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.6	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.6	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.6	UG/KG	ND	UG/KG	
Benzene	5.6	UG/KG	ND	UG/KG	
Bromobenzene	5.6	UG/KG	ND	UG/KG	
Bromochloromethane	5.6	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB02-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.026
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.6	UG/KG	ND	UG/KG	
Bromoform	5.6	UG/KG	ND	UG/KG	
Bromomethane	5.6	UG/KG	ND	UG/KG	
Carbon disulfide	5.6	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.6	UG/KG	ND	UG/KG	
Chlorobenzene	5.6	UG/KG	ND	UG/KG	
Chloroethane	5.6	UG/KG	ND	UG/KG	
Chloroform	5.6	UG/KG	ND	UG/KG	
Chloromethane	5.6	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.6	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.6	UG/KG	ND	UG/KG	
Dibromochloromethane	5.6	UG/KG	ND	UG/KG	
Dibromomethane	5.6	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.6	UG/KG	ND	UG/KG	
Ethyl benzene	5.6	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.6	UG/KG	ND	UG/KG	
Iodomethane	5.6	UG/KG	ND	UG/KG	
Isopropylbenzene	5.6	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.6	UG/KG	ND	UG/KG	
Methylene chloride	5.6	UG/KG	ND	UG/KG	
n-Butylbenzene	5.6	UG/KG	ND	UG/KG	
n-Propylbenzene	5.6	UG/KG	ND	UG/KG	
Naphthalene	5.6	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.6	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.6	UG/KG	ND	UG/KG	
Styrene	5.6	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.6	UG/KG	ND	UG/KG	
Tetrachloroethene	5.6	UG/KG	ND	UG/KG	
Toluene	5.6	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.6	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.6	UG/KG	ND	UG/KG	
Trichloroethene	5.6	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.6	UG/KG	ND	UG/KG	
Vinyl Acetate	5.6	UG/KG	ND	UG/KG	
Vinyl chloride	5.6	UG/KG	ND	UG/KG	
Xylene (total)	5.6	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB02-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.026
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	56.4 UG/KG	85 - 112	93
1,2-Dichloroethane-d4	56.4 UG/KG	77 - 122	115
4-Bromofluorobenzene	56.4 UG/KG	83 - 116	87
Dibromofluoromethane	56.4 UG/KG	83 - 113	119

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK42 PREP BLANK ID :GVBLK42 LCS ID :GVLCS42

LCSD ID :GVLCS42D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB02-(3.5-4.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.027
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:55

% MOISTURE	: 11.08	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: G5868.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.12 g
TIME ANALYZED	: 14:58		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.5	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.5	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.5	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.5	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.5	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.5	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.5	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.5	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.5	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.5	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.5	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.5	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.5	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.5	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.5	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.5	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.5	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.5	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.5	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.5	UG/KG	ND	UG/KG	
1-Chlorohexane	5.5	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.5	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.5	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.5	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.5	UG/KG	ND	UG/KG	
Benzene	5.5	UG/KG	ND	UG/KG	
Bromobenzene	5.5	UG/KG	ND	UG/KG	
Bromochloromethane	5.5	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB02-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.027
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.5	UG/KG	ND	UG/KG	
Bromoform	5.5	UG/KG	ND	UG/KG	
Bromomethane	5.5	UG/KG	ND	UG/KG	
Carbon disulfide	5.5	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.5	UG/KG	ND	UG/KG	
Chlorobenzene	5.5	UG/KG	ND	UG/KG	
Chloroethane	5.5	UG/KG	ND	UG/KG	
Chloroform	5.5	UG/KG	ND	UG/KG	
Chloromethane	5.5	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.5	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.5	UG/KG	ND	UG/KG	
Dibromochloromethane	5.5	UG/KG	ND	UG/KG	
Dibromomethane	5.5	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.5	UG/KG	ND	UG/KG	
Ethyl benzene	5.5	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.5	UG/KG	ND	UG/KG	
Iodomethane	5.5	UG/KG	ND	UG/KG	
Isopropylbenzene	5.5	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.5	UG/KG	ND	UG/KG	
Methylene chloride	5.5	UG/KG	ND	UG/KG	
n-Butylbenzene	5.5	UG/KG	ND	UG/KG	
n-Propylbenzene	5.5	UG/KG	ND	UG/KG	
Naphthalene	5.5	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.5	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.5	UG/KG	ND	UG/KG	
Styrene	5.5	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.5	UG/KG	ND	UG/KG	
Tetrachloroethene	5.5	UG/KG	ND	UG/KG	
Toluene	5.5	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.5	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.5	UG/KG	ND	UG/KG	
Trichloroethene	5.5	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.5	UG/KG	ND	UG/KG	
Vinyl Acetate	5.5	UG/KG	ND	UG/KG	
Vinyl chloride	5.5	UG/KG	ND	UG/KG	
Xylene (total)	5.5	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB02-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.027
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	54.9 UG/KG	85 - 112	99
1,2-Dichloroethane-d4	54.9 UG/KG	77 - 122	100
4-Bromofluorobenzene	54.9 UG/KG	83 - 116	83
Dibromofluoromethane	54.9 UG/KG	83 - 113	109

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK42 PREP BLANK ID :GVBLK42 LCS ID :GVLCS42

LCSD ID :GVLCS42D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB02-(5.5-6.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.028
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:55

% MOISTURE	: 12.52	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: G5869.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.13 g
TIME ANALYZED	: 15:28		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.6	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.6	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.6	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.6	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.6	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.6	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.6	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.6	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.6	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.6	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.6	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.6	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.6	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.6	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.6	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1-Chlorohexane	5.6	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.6	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.6	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.6	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.6	UG/KG	ND	UG/KG	
Benzene	5.6	UG/KG	ND	UG/KG	
Bromobenzene	5.6	UG/KG	ND	UG/KG	
Bromochloromethane	5.6	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB02-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.028
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.6	UG/KG	ND	UG/KG	
Bromoform	5.6	UG/KG	ND	UG/KG	
Bromomethane	5.6	UG/KG	ND	UG/KG	
Carbon disulfide	5.6	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.6	UG/KG	ND	UG/KG	
Chlorobenzene	5.6	UG/KG	ND	UG/KG	
Chloroethane	5.6	UG/KG	ND	UG/KG	
Chloroform	5.6	UG/KG	ND	UG/KG	
Chloromethane	5.6	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.6	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.6	UG/KG	ND	UG/KG	
Dibromochloromethane	5.6	UG/KG	ND	UG/KG	
Dibromomethane	5.6	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.6	UG/KG	ND	UG/KG	
Ethyl benzene	5.6	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.6	UG/KG	ND	UG/KG	
Iodomethane	5.6	UG/KG	ND	UG/KG	
Isopropylbenzene	5.6	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.6	UG/KG	ND	UG/KG	
Methylene chloride	5.6	UG/KG	ND	UG/KG	
n-Butylbenzene	5.6	UG/KG	ND	UG/KG	
n-Propylbenzene	5.6	UG/KG	ND	UG/KG	
Naphthalene	5.6	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.6	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.6	UG/KG	ND	UG/KG	
Styrene	5.6	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.6	UG/KG	ND	UG/KG	
Tetrachloroethene	5.6	UG/KG	ND	UG/KG	
Toluene	5.6	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.6	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.6	UG/KG	ND	UG/KG	
Trichloroethene	5.6	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.6	UG/KG	ND	UG/KG	
Vinyl Acetate	5.6	UG/KG	ND	UG/KG	
Vinyl chloride	5.6	UG/KG	ND	UG/KG	
Xylene (total)	5.6	UG/KG	ND	UG/KG	

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB02-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.028
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	55.7 UG/KG	85 - 112	102
1,2-Dichloroethane-d4	55.7 UG/KG	77 - 122	113
4-Bromofluorobenzene	55.7 UG/KG	83 - 116	75
Dibromofluoromethane	55.7 UG/KG	83 - 113	120

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK42 PREP BLANK ID :GVBLK42 LCS ID :GVLCS42

LCSD ID :GVLCS42D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB02-(11.5-12.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.029
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:55

% MOISTURE	: 6.936	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: G5870.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.06 g
TIME ANALYZED	: 15:59		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.3	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.3	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.3	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1-Chlorohexane	5.3	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.3	UG/KG	ND	UG/KG	
Benzene	5.3	UG/KG	ND	UG/KG	
Bromobenzene	5.3	UG/KG	ND	UG/KG	
Bromochloromethane	5.3	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB02-(11.5-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.029
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.3	UG/KG	ND	UG/KG	
Bromoform	5.3	UG/KG	ND	UG/KG	
Bromomethane	5.3	UG/KG	ND	UG/KG	
Carbon disulfide	5.3	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.3	UG/KG	ND	UG/KG	
Chlorobenzene	5.3	UG/KG	ND	UG/KG	
Chloroethane	5.3	UG/KG	ND	UG/KG	
Chloroform	5.3	UG/KG	ND	UG/KG	
Chloromethane	5.3	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Dibromochloromethane	5.3	UG/KG	ND	UG/KG	
Dibromomethane	5.3	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.3	UG/KG	ND	UG/KG	
Ethyl benzene	5.3	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.3	UG/KG	ND	UG/KG	
Iodomethane	5.3	UG/KG	ND	UG/KG	
Isopropylbenzene	5.3	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.3	UG/KG	ND	UG/KG	
Methylene chloride	5.3	UG/KG	ND	UG/KG	
n-Butylbenzene	5.3	UG/KG	ND	UG/KG	
n-Propylbenzene	5.3	UG/KG	ND	UG/KG	
Naphthalene	5.3	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.3	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Styrene	5.3	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Tetrachloroethene	5.3	UG/KG	ND	UG/KG	
Toluene	5.3	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Trichloroethene	5.3	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.3	UG/KG	ND	UG/KG	
Vinyl Acetate	5.3	UG/KG	ND	UG/KG	
Vinyl chloride	5.3	UG/KG	ND	UG/KG	
Xylene (total)	5.3	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB02-(11.5-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.029
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	53.1 UG/KG	85 - 112	91
1,2-Dichloroethane-d4	53.1 UG/KG	77 - 122	99
4-Bromofluorobenzene	53.1 UG/KG	83 - 116	113
Dibromofluoromethane	53.1 UG/KG	83 - 113	95

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK42 PREP BLANK ID :GVBLK42 LCS ID :GVLCS42

LCSD ID :GVLCS42D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB02-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.030
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

% MOISTURE	: 12.55	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: G5871.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.06 g
TIME ANALYZED	: 16:29		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.6	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.6	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.6	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.6	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.6	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.6	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.6	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.6	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.6	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.6	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.6	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.6	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.6	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.6	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.6	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1-Chlorohexane	5.6	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.6	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.6	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.6	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.6	UG/KG	ND	UG/KG	
Benzene	5.6	UG/KG	ND	UG/KG	
Bromobenzene	5.6	UG/KG	ND	UG/KG	
Bromochloromethane	5.6	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB02-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.030
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.6	UG/KG	ND	UG/KG	
Bromoform	5.6	UG/KG	ND	UG/KG	
Bromomethane	5.6	UG/KG	ND	UG/KG	
Carbon disulfide	5.6	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.6	UG/KG	ND	UG/KG	
Chlorobenzene	5.6	UG/KG	ND	UG/KG	
Chloroethane	5.6	UG/KG	ND	UG/KG	
Chloroform	5.6	UG/KG	ND	UG/KG	
Chloromethane	5.6	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.6	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.6	UG/KG	ND	UG/KG	
Dibromochloromethane	5.6	UG/KG	ND	UG/KG	
Dibromomethane	5.6	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.6	UG/KG	ND	UG/KG	
Ethyl benzene	5.6	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.6	UG/KG	ND	UG/KG	
Iodomethane	5.6	UG/KG	ND	UG/KG	
Isopropylbenzene	5.6	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.6	UG/KG	ND	UG/KG	
Methylene chloride	5.6	UG/KG	ND	UG/KG	
n-Butylbenzene	5.6	UG/KG	ND	UG/KG	
n-Propylbenzene	5.6	UG/KG	ND	UG/KG	
Naphthalene	5.6	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.6	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.6	UG/KG	ND	UG/KG	
Styrene	5.6	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.6	UG/KG	ND	UG/KG	
Tetrachloroethene	5.6	UG/KG	ND	UG/KG	
Toluene	5.6	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.6	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.6	UG/KG	ND	UG/KG	
Trichloroethene	5.6	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.6	UG/KG	ND	UG/KG	
Vinyl Acetate	5.6	UG/KG	ND	UG/KG	
Vinyl chloride	5.6	UG/KG	ND	UG/KG	
Xylene (total)	5.6	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB02-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.030
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	56.5 UG/KG	85 - 112	101
1,2-Dichloroethane-d4	56.5 UG/KG	77 - 122	101
4-Bromofluorobenzene	56.5 UG/KG	83 - 116	103
Dibromofluoromethane	56.5 UG/KG	83 - 113	105

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK42 PREP BLANK ID :GVBLK42 LCS ID :GVLCS42

LCSD ID :GVLCS42D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB02-(24.5-25.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.031
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:55

% MOISTURE	: 4.423	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: G5879.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.01 g
TIME ANALYZED	: 20:32		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.2	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.2	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.2	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.2	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.2	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.2	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.2	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.2	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.2	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.2	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.2	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.2	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.2	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.2	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.2	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1-Chlorohexane	5.2	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.2	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.2	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.2	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.2	UG/KG	ND	UG/KG	
Benzene	5.2	UG/KG	ND	UG/KG	
Bromobenzene	5.2	UG/KG	ND	UG/KG	
Bromochloromethane	5.2	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB02-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.031
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.2	UG/KG	ND	UG/KG	
Bromoform	5.2	UG/KG	ND	UG/KG	
Bromomethane	5.2	UG/KG	ND	UG/KG	
Carbon disulfide	5.2	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.2	UG/KG	ND	UG/KG	
Chlorobenzene	5.2	UG/KG	ND	UG/KG	
Chloroethane	5.2	UG/KG	ND	UG/KG	
Chloroform	5.2	UG/KG	ND	UG/KG	
Chloromethane	5.2	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.2	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.2	UG/KG	ND	UG/KG	
Dibromochloromethane	5.2	UG/KG	ND	UG/KG	
Dibromomethane	5.2	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.2	UG/KG	ND	UG/KG	
Ethyl benzene	5.2	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.2	UG/KG	ND	UG/KG	
Iodomethane	5.2	UG/KG	ND	UG/KG	
Isopropylbenzene	5.2	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.2	UG/KG	ND	UG/KG	
Methylene chloride	5.2	UG/KG	ND	UG/KG	
n-Butylbenzene	5.2	UG/KG	ND	UG/KG	
n-Propylbenzene	5.2	UG/KG	ND	UG/KG	
Naphthalene	5.2	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.2	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.2	UG/KG	ND	UG/KG	
Styrene	5.2	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.2	UG/KG	ND	UG/KG	
Tetrachloroethene	5.2	UG/KG	ND	UG/KG	
Toluene	5.2	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.2	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.2	UG/KG	ND	UG/KG	
Trichloroethene	5.2	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.2	UG/KG	ND	UG/KG	
Vinyl Acetate	5.2	UG/KG	ND	UG/KG	
Vinyl chloride	5.2	UG/KG	ND	UG/KG	
Xylene (total)	5.2	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB02-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.031
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	52.2 UG/KG	85 - 112	102
1,2-Dichloroethane-d4	52.2 UG/KG	77 - 122	93
4-Bromofluorobenzene	52.2 UG/KG	83 - 116	96
Dibromofluoromethane	52.2 UG/KG	83 - 113	101

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK42 PREP BLANK ID :GVBLK42 LCS ID :GVLCS42
LCSD ID :GVLCS42D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB01-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.032
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

% MOISTURE	: 9.49	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: G5873.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.12 g
TIME ANALYZED	: 17:30		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.4	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.4	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.4	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.4	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.4	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.4	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.4	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.4	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.4	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.4	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.4	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.4	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.4	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.4	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.4	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1-Chlorohexane	5.4	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.4	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.4	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.4	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.4	UG/KG	ND	UG/KG	
Benzene	5.4	UG/KG	ND	UG/KG	
Bromobenzene	5.4	UG/KG	ND	UG/KG	
Bromochloromethane	5.4	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB01-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.032
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.4	UG/KG	ND	UG/KG	
Bromoform	5.4	UG/KG	ND	UG/KG	
Bromomethane	5.4	UG/KG	ND	UG/KG	
Carbon disulfide	5.4	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.4	UG/KG	ND	UG/KG	
Chlorobenzene	5.4	UG/KG	ND	UG/KG	
Chloroethane	5.4	UG/KG	ND	UG/KG	
Chloroform	5.4	UG/KG	ND	UG/KG	
Chloromethane	5.4	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.4	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.4	UG/KG	ND	UG/KG	
Dibromochloromethane	5.4	UG/KG	ND	UG/KG	
Dibromomethane	5.4	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.4	UG/KG	ND	UG/KG	
Ethyl benzene	5.4	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.4	UG/KG	ND	UG/KG	
Iodomethane	5.4	UG/KG	ND	UG/KG	
Isopropylbenzene	5.4	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.4	UG/KG	ND	UG/KG	
Methylene chloride	5.4	UG/KG	ND	UG/KG	
n-Butylbenzene	5.4	UG/KG	ND	UG/KG	
n-Propylbenzene	5.4	UG/KG	ND	UG/KG	
Naphthalene	5.4	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.4	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.4	UG/KG	ND	UG/KG	
Styrene	5.4	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.4	UG/KG	ND	UG/KG	
Tetrachloroethene	5.4	UG/KG	ND	UG/KG	
Toluene	5.4	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.4	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.4	UG/KG	ND	UG/KG	
Trichloroethene	5.4	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.4	UG/KG	ND	UG/KG	
Vinyl Acetate	5.4	UG/KG	ND	UG/KG	
Vinyl chloride	5.4	UG/KG	ND	UG/KG	
Xylene (total)	5.4	UG/KG	ND	UG/KG	

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB01-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.032
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	53.9 UG/KG	85 - 112	100
1,2-Dichloroethane-d4	53.9 UG/KG	77 - 122	104
4-Bromofluorobenzene	53.9 UG/KG	83 - 116	95
Dibromofluoromethane	53.9 UG/KG	83 - 113	105

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK42 PREP BLANK ID :GVBLK42 LCS ID :GVLCS42

LCSD ID :GVLCS42D

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB01-(3.5-4.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.033
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:55

% MOISTURE	: 9.27	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: G5874.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5 g
TIME ANALYZED	: 18:00		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.6	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.6	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.6	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.6	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.6	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.6	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.6	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.6	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.6	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.6	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.6	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.6	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.6	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.6	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.6	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1-Chlorohexane	5.6	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.6	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.6	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.6	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.6	UG/KG	ND	UG/KG	
Benzene	5.6	UG/KG	ND	UG/KG	
Bromobenzene	5.6	UG/KG	ND	UG/KG	
Bromochloromethane	5.6	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB01-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.033
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.6	UG/KG	ND	UG/KG	
Bromoform	5.6	UG/KG	ND	UG/KG	
Bromomethane	5.6	UG/KG	ND	UG/KG	
Carbon disulfide	5.6	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.6	UG/KG	ND	UG/KG	
Chlorobenzene	5.6	UG/KG	ND	UG/KG	
Chloroethane	5.6	UG/KG	ND	UG/KG	
Chloroform	5.6	UG/KG	ND	UG/KG	
Chloromethane	5.6	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.6	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.6	UG/KG	ND	UG/KG	
Dibromochloromethane	5.6	UG/KG	ND	UG/KG	
Dibromomethane	5.6	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.6	UG/KG	ND	UG/KG	
Ethyl benzene	5.6	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.6	UG/KG	ND	UG/KG	
Iodomethane	5.6	UG/KG	ND	UG/KG	
Isopropylbenzene	5.6	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.6	UG/KG	ND	UG/KG	
Methylene chloride	5.6	UG/KG	ND	UG/KG	
n-Butylbenzene	5.6	UG/KG	ND	UG/KG	
n-Propylbenzene	5.6	UG/KG	ND	UG/KG	
Naphthalene	5.6	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.6	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.6	UG/KG	ND	UG/KG	
Styrene	5.6	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.6	UG/KG	ND	UG/KG	
Tetrachloroethene	5.6	UG/KG	ND	UG/KG	
Toluene	5.6	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.6	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.6	UG/KG	ND	UG/KG	
Trichloroethene	5.6	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.6	UG/KG	ND	UG/KG	
Vinyl Acetate	5.6	UG/KG	ND	UG/KG	
Vinyl chloride	5.6	UG/KG	ND	UG/KG	
Xylene (total)	5.6	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB01-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.033
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:55

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	55.1 UG/KG	85 - 112	103
1,2-Dichloroethane-d4	55.1 UG/KG	77 - 122	97
4-Bromofluorobenzene	55.1 UG/KG	83 - 116	89
Dibromofluoromethane	55.1 UG/KG	83 - 113	104

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK42 PREP BLANK ID :GVBLK42 LCS ID :GVLCS42
LCSD ID :GVLCS42D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB01-(5.5-6.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.034
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:56

% MOISTURE	: 16.14	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: F9164.D
INSTRUMENT ID	: F-HP5973	SAMPLE WEIGHT	: 5.10 g
TIME ANALYZED	: 21:51		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.8	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.8	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.8	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.8	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.8	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.8	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.8	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.8	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.8	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.8	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.8	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.8	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.8	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.8	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.8	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.8	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.8	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.8	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.8	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.8	UG/KG	ND	UG/KG	
1-Chlorohexane	5.8	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.8	UG/KG	ND	UG/KG	
2-Butanone	12	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	12	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.8	UG/KG	ND	UG/KG	
2-Hexanone	12	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.8	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	12	UG/KG	ND	UG/KG	
Acetone	12	UG/KG	ND	UG/KG	
Acrylonitrile	5.8	UG/KG	ND	UG/KG	
Benzene	5.8	UG/KG	ND	UG/KG	
Bromobenzene	5.8	UG/KG	ND	UG/KG	
Bromochloromethane	5.8	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB01-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.034
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:56

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.8	UG/KG	ND	UG/KG	
Bromoform	5.8	UG/KG	ND	UG/KG	
Bromomethane	5.8	UG/KG	ND	UG/KG	
Carbon disulfide	5.8	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.8	UG/KG	ND	UG/KG	
Chlorobenzene	5.8	UG/KG	ND	UG/KG	
Chloroethane	5.8	UG/KG	ND	UG/KG	
Chloroform	5.8	UG/KG	ND	UG/KG	
Chloromethane	5.8	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.8	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.8	UG/KG	ND	UG/KG	
Dibromochloromethane	5.8	UG/KG	ND	UG/KG	
Dibromomethane	5.8	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.8	UG/KG	ND	UG/KG	
Ethyl benzene	5.8	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.8	UG/KG	ND	UG/KG	
Iodomethane	5.8	UG/KG	ND	UG/KG	
Isopropylbenzene	5.8	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.8	UG/KG	ND	UG/KG	
Methylene chloride	5.8	UG/KG	ND	UG/KG	
n-Butylbenzene	5.8	UG/KG	ND	UG/KG	
n-Propylbenzene	5.8	UG/KG	ND	UG/KG	
Naphthalene	5.8	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.8	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.8	UG/KG	ND	UG/KG	
Styrene	5.8	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.8	UG/KG	ND	UG/KG	
Tetrachloroethene	5.8	UG/KG	ND	UG/KG	
Toluene	5.8	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.8	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.8	UG/KG	ND	UG/KG	
Trichloroethene	5.8	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.8	UG/KG	ND	UG/KG	
Vinyl Acetate	5.8	UG/KG	ND	UG/KG	
Vinyl chloride	5.8	UG/KG	ND	UG/KG	
Xylene (total)	5.8	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB01-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.034
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:56

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	58.4 UG/KG	85 - 112	103
1,2-Dichloroethane-d4	58.4 UG/KG	77 - 122	110
4-Bromofluorobenzene	58.4 UG/KG	83 - 116	87
Dibromofluoromethane	58.4 UG/KG	83 - 113	102

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :FVBLK55 PREP BLANK ID :FVBLK55 LCS ID :FVLCS55

LCSD ID :FVLCS55D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB01-(11.0-12.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.035
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:56

% MOISTURE	: 7.042	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: F9161.D
INSTRUMENT ID	: F-HP5973	SAMPLE WEIGHT	: 5.02 g
TIME ANALYZED	: 19:59		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.3	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.3	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.3	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1-Chlorohexane	5.3	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.3	UG/KG	ND	UG/KG	
Benzene	5.3	UG/KG	ND	UG/KG	
Bromobenzene	5.3	UG/KG	ND	UG/KG	
Bromochloromethane	5.3	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB01-(11.0-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.035
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:56

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.3	UG/KG	ND	UG/KG	
Bromoform	5.3	UG/KG	ND	UG/KG	
Bromomethane	5.3	UG/KG	ND	UG/KG	
Carbon disulfide	5.3	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.3	UG/KG	ND	UG/KG	
Chlorobenzene	5.3	UG/KG	ND	UG/KG	
Chloroethane	5.3	UG/KG	ND	UG/KG	
Chloroform	5.3	UG/KG	ND	UG/KG	
Chloromethane	5.3	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Dibromochloromethane	5.3	UG/KG	ND	UG/KG	
Dibromomethane	5.3	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.3	UG/KG	ND	UG/KG	
Ethyl benzene	5.3	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.3	UG/KG	ND	UG/KG	
Iodomethane	5.3	UG/KG	ND	UG/KG	
Isopropylbenzene	5.3	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.3	UG/KG	ND	UG/KG	
Methylene chloride	5.3	UG/KG	ND	UG/KG	
n-Butylbenzene	5.3	UG/KG	ND	UG/KG	
n-Propylbenzene	5.3	UG/KG	ND	UG/KG	
Naphthalene	5.3	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.3	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Styrene	5.3	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Tetrachloroethene	5.3	UG/KG	ND	UG/KG	
Toluene	5.3	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Trichloroethene	5.3	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.3	UG/KG	ND	UG/KG	
Vinyl Acetate	5.3	UG/KG	ND	UG/KG	
Vinyl chloride	5.3	UG/KG	ND	UG/KG	
Xylene (total)	5.3	UG/KG	ND	UG/KG	

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB01-(11.0-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.035
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:56

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	53.6 UG/KG	85 - 112	90
1,2-Dichloroethane-d4	53.6 UG/KG	77 - 122	122
4-Bromofluorobenzene	53.6 UG/KG	83 - 116	90
Dibromofluoromethane	53.6 UG/KG	83 - 113	114

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :FVBLK55 PREP BLANK ID :FVBLK55 LCS ID :FVLCS55

LCSD ID :FVLCS55D

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1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB01-(19.5-20.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.036
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:56

% MOISTURE	: 17.43	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: F9160.D
INSTRUMENT ID	: F-HP5973	SAMPLE WEIGHT	: 5.02 g
TIME ANALYZED	: 19:29		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	6.0	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	6.0	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	6.0	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	6.0	UG/KG	ND	UG/KG	
1,1-Dichloroethane	6.0	UG/KG	ND	UG/KG	
1,1-Dichloroethene	6.0	UG/KG	ND	UG/KG	
1,1-Dichloropropene	6.0	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	6.0	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	6.0	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	6.0	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	6.0	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	6.0	UG/KG	ND	UG/KG	
1,2-Dibromoethane	6.0	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	6.0	UG/KG	ND	UG/KG	
1,2-Dichloroethane	6.0	UG/KG	ND	UG/KG	
1,2-Dichloropropane	6.0	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	6.0	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	6.0	UG/KG	ND	UG/KG	
1,3-Dichloropropane	6.0	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	6.0	UG/KG	ND	UG/KG	
1-Chlorohexane	6.0	UG/KG	ND	UG/KG	
2,2-Dichloropropane	6.0	UG/KG	ND	UG/KG	
2-Butanone	12	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	12	UG/KG	ND	UG/KG	
2-Chlorotoluene	6.0	UG/KG	ND	UG/KG	
2-Hexanone	12	UG/KG	ND	UG/KG	
4-Chlorotoluene	6.0	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	12	UG/KG	ND	UG/KG	
Acetone	12	UG/KG	ND	UG/KG	
Acrylonitrile	6.0	UG/KG	ND	UG/KG	
Benzene	6.0	UG/KG	ND	UG/KG	
Bromobenzene	6.0	UG/KG	ND	UG/KG	
Bromochloromethane	6.0	UG/KG	ND	UG/KG	

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1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB01-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.036
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:56

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	6.0	UG/KG	ND	UG/KG	
Bromoform	6.0	UG/KG	ND	UG/KG	
Bromomethane	6.0	UG/KG	ND	UG/KG	
Carbon disulfide	6.0	UG/KG	ND	UG/KG	
Carbon tetrachloride	6.0	UG/KG	ND	UG/KG	
Chlorobenzene	6.0	UG/KG	ND	UG/KG	
Chloroethane	6.0	UG/KG	ND	UG/KG	
Chloroform	6.0	UG/KG	ND	UG/KG	
Chloromethane	6.0	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	6.0	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	6.0	UG/KG	ND	UG/KG	
Dibromochloromethane	6.0	UG/KG	ND	UG/KG	
Dibromomethane	6.0	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	6.0	UG/KG	ND	UG/KG	
Ethyl benzene	6.0	UG/KG	ND	UG/KG	
Hexachlorobutadiene	6.0	UG/KG	ND	UG/KG	
Iodomethane	6.0	UG/KG	ND	UG/KG	
Isopropylbenzene	6.0	UG/KG	ND	UG/KG	
Methyl t-Butylether	6.0	UG/KG	ND	UG/KG	
Methylene chloride	6.0	UG/KG	ND	UG/KG	
n-Butylbenzene	6.0	UG/KG	ND	UG/KG	
n-Propylbenzene	6.0	UG/KG	ND	UG/KG	
Naphthalene	6.0	UG/KG	ND	UG/KG	
p-Isopropyltoluene	6.0	UG/KG	ND	UG/KG	
sec-Butylbenzene	6.0	UG/KG	ND	UG/KG	
Styrene	6.0	UG/KG	ND	UG/KG	
tert-Butylbenzene	6.0	UG/KG	ND	UG/KG	
Tetrachloroethene	6.0	UG/KG	ND	UG/KG	
Toluene	6.0	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	6.0	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	6.0	UG/KG	ND	UG/KG	
Trichloroethene	6.0	UG/KG	ND	UG/KG	
Trichlorofluoromethane	6.0	UG/KG	ND	UG/KG	
Vinyl Acetate	6.0	UG/KG	ND	UG/KG	
Vinyl chloride	6.0	UG/KG	ND	UG/KG	
Xylene (total)	6.0	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB01-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.036
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:56

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	60.3 UG/KG	85 - 112	99
1,2-Dichloroethane-d4	60.3 UG/KG	77 - 122	142
4-Bromofluorobenzene	60.3 UG/KG	83 - 116	89
Dibromofluoromethane	60.3 UG/KG	83 - 113	132

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID : FVBLK55 PREP BLANK ID : FVBLK55 LCS ID : FVLCS55

LCSD ID : FVLCS55D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB01-(19.5-20.0)RA1
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7432.036RA1
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/19/01	DATE RECEIVED	: 12/21/01
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 18:56

% MOISTURE	: 17.43	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: F9163.D
INSTRUMENT ID	: F-HP5973	SAMPLE WEIGHT	: 5.02 g
TIME ANALYZED	: 21:20		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	6.0	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	6.0	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	6.0	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	6.0	UG/KG	ND	UG/KG	
1,1-Dichloroethane	6.0	UG/KG	ND	UG/KG	
1,1-Dichloroethene	6.0	UG/KG	ND	UG/KG	
1,1-Dichloropropene	6.0	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	6.0	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	6.0	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	6.0	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	6.0	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	6.0	UG/KG	ND	UG/KG	
1,2-Dibromoethane	6.0	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	6.0	UG/KG	ND	UG/KG	
1,2-Dichloroethane	6.0	UG/KG	ND	UG/KG	
1,2-Dichloropropane	6.0	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	6.0	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	6.0	UG/KG	ND	UG/KG	
1,3-Dichloropropane	6.0	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	6.0	UG/KG	ND	UG/KG	
1-Chlorohexane	6.0	UG/KG	ND	UG/KG	
2,2-Dichloropropane	6.0	UG/KG	ND	UG/KG	
2-Butanone	12	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	12	UG/KG	ND	UG/KG	
2-Chlorotoluene	6.0	UG/KG	ND	UG/KG	
2-Hexanone	12	UG/KG	ND	UG/KG	
4-Chlorotoluene	6.0	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	12	UG/KG	ND	UG/KG	
Acetone	12	UG/KG	ND	UG/KG	
Acrylonitrile	6.0	UG/KG	ND	UG/KG	
Benzene	6.0	UG/KG	ND	UG/KG	
Bromobenzene	6.0	UG/KG	ND	UG/KG	
Bromochloromethane	6.0	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB01-(19.5-20.0)RA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.036RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:56

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	6.0	UG/KG	ND	UG/KG	
Bromoform	6.0	UG/KG	ND	UG/KG	
Bromomethane	6.0	UG/KG	ND	UG/KG	
Carbon disulfide	6.0	UG/KG	ND	UG/KG	
Carbon tetrachloride	6.0	UG/KG	ND	UG/KG	
Chlorobenzene	6.0	UG/KG	ND	UG/KG	
Chloroethane	6.0	UG/KG	ND	UG/KG	
Chloroform	6.0	UG/KG	ND	UG/KG	
Chloromethane	6.0	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	6.0	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	6.0	UG/KG	ND	UG/KG	
Dibromochloromethane	6.0	UG/KG	ND	UG/KG	
Dibromomethane	6.0	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	6.0	UG/KG	ND	UG/KG	
Ethyl benzene	6.0	UG/KG	ND	UG/KG	
Hexachlorobutadiene	6.0	UG/KG	ND	UG/KG	
Iodomethane	6.0	UG/KG	ND	UG/KG	
Isopropylbenzene	6.0	UG/KG	ND	UG/KG	
Methyl t-Butylether	6.0	UG/KG	ND	UG/KG	
Methylene chloride	6.0	UG/KG	ND	UG/KG	
n-Butylbenzene	6.0	UG/KG	ND	UG/KG	
n-Propylbenzene	6.0	UG/KG	ND	UG/KG	
Naphthalene	6.0	UG/KG	ND	UG/KG	
p-Isopropyltoluene	6.0	UG/KG	ND	UG/KG	
sec-Butylbenzene	6.0	UG/KG	ND	UG/KG	
Styrene	6.0	UG/KG	ND	UG/KG	
tert-Butylbenzene	6.0	UG/KG	ND	UG/KG	
Tetrachloroethene	6.0	UG/KG	ND	UG/KG	
Toluene	6.0	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	6.0	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	6.0	UG/KG	ND	UG/KG	
Trichloroethene	6.0	UG/KG	ND	UG/KG	
Trichlorofluoromethane	6.0	UG/KG	ND	UG/KG	
Vinyl Acetate	6.0	UG/KG	ND	UG/KG	
Vinyl chloride	6.0	UG/KG	ND	UG/KG	
Xylene (total)	6.0	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB01-(19.5-20.0)RA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.036RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:56

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	60.3 UG/KG	85 - 112	102
1,2-Dichloroethane-d4	60.3 UG/KG	77 - 122	133
4-Bromofluorobenzene	60.3 UG/KG	83 - 116	83
Dibromofluoromethane	60.3 UG/KG	83 - 113	116

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID : FVBLK55 PREP BLANK ID : FVBLK55 LCS ID : FVLCS55

LCSD ID : FVLCS55D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB01-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.037
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:56

% MOISTURE	: 6.516	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: F9159.D
INSTRUMENT ID	: F-HP5973	SAMPLE WEIGHT	: 5 g
TIME ANALYZED	: 18:58		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.3	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.3	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.3	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1-Chlorohexane	5.3	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.3	UG/KG	ND	UG/KG	
Benzene	5.3	UG/KG	ND	UG/KG	
Bromobenzene	5.3	UG/KG	ND	UG/KG	
Bromochloromethane	5.3	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB01-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.037
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:56

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.3	UG/KG	ND	UG/KG	
Bromoform	5.3	UG/KG	ND	UG/KG	
Bromomethane	5.3	UG/KG	ND	UG/KG	
Carbon disulfide	5.3	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.3	UG/KG	ND	UG/KG	
Chlorobenzene	5.3	UG/KG	ND	UG/KG	
Chloroethane	5.3	UG/KG	ND	UG/KG	
Chloroform	5.3	UG/KG	ND	UG/KG	
Chloromethane	5.3	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Dibromochloromethane	5.3	UG/KG	ND	UG/KG	
Dibromomethane	5.3	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.3	UG/KG	ND	UG/KG	
Ethyl benzene	5.3	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.3	UG/KG	ND	UG/KG	
Iodomethane	5.3	UG/KG	ND	UG/KG	
Isopropylbenzene	5.3	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.3	UG/KG	ND	UG/KG	
Methylene chloride	5.3	UG/KG	ND	UG/KG	
n-Butylbenzene	5.3	UG/KG	ND	UG/KG	
n-Propylbenzene	5.3	UG/KG	ND	UG/KG	
Naphthalene	5.3	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.3	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Styrene	5.3	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Tetrachloroethene	5.3	UG/KG	ND	UG/KG	
Toluene	5.3	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Trichloroethene	5.3	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.3	UG/KG	ND	UG/KG	
Vinyl Acetate	5.3	UG/KG	ND	UG/KG	
Vinyl chloride	5.3	UG/KG	ND	UG/KG	
Xylene (total)	5.3	UG/KG	ND	UG/KG	

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB01-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.037
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:56

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	53.5 UG/KG	85 - 112	97
1,2-Dichloroethane-d4	53.5 UG/KG	77 - 122	126
4-Bromofluorobenzene	53.5 UG/KG	83 - 116	86
Dibromofluoromethane	53.5 UG/KG	83 - 113	108

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID : FVBLK55 PREP BLANK ID : FVBLK55 LCS ID : FVLCS55

LCSD ID : FVLCS55D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB01-(24.5-25.0)RA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.037RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:56

% MOISTURE	: 6.516	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: G5878.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.01 g
TIME ANALYZED	: 20:01		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.3	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.3	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.3	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1-Chlorohexane	5.3	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.3	UG/KG	ND	UG/KG	
Benzene	5.3	UG/KG	ND	UG/KG	
Bromobenzene	5.3	UG/KG	ND	UG/KG	
Bromochloromethane	5.3	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB01-(24.5-25.0)RA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.037RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:56

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.3	UG/KG	ND	UG/KG	
Bromoform	5.3	UG/KG	ND	UG/KG	
Bromomethane	5.3	UG/KG	ND	UG/KG	
Carbon disulfide	5.3	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.3	UG/KG	ND	UG/KG	
Chlorobenzene	5.3	UG/KG	ND	UG/KG	
Chloroethane	5.3	UG/KG	ND	UG/KG	
Chloroform	5.3	UG/KG	ND	UG/KG	
Chloromethane	5.3	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Dibromochloromethane	5.3	UG/KG	ND	UG/KG	
Dibromomethane	5.3	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.3	UG/KG	ND	UG/KG	
Ethyl benzene	5.3	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.3	UG/KG	ND	UG/KG	
Iodomethane	5.3	UG/KG	ND	UG/KG	
Isopropylbenzene	5.3	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.3	UG/KG	ND	UG/KG	
Methylene chloride	5.3	UG/KG	ND	UG/KG	
n-Butylbenzene	5.3	UG/KG	ND	UG/KG	
n-Propylbenzene	5.3	UG/KG	ND	UG/KG	
Naphthalene	5.3	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.3	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Styrene	5.3	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Tetrachloroethene	5.3	UG/KG	ND	UG/KG	
Toluene	5.3	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Trichloroethene	5.3	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.3	UG/KG	ND	UG/KG	
Vinyl Acetate	5.3	UG/KG	ND	UG/KG	
Vinyl chloride	5.3	UG/KG	ND	UG/KG	
Xylene (total)	5.3	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB01-(24.5-25.0)RA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7432.037RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/19/01	DATE RECEIVED :	12/21/01
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 18:56

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	53.4 UG/KG	85 - 112	74
1,2-Dichloroethane-d4	53.4 UG/KG	77 - 122	193
4-Bromofluorobenzene	53.4 UG/KG	83 - 116	132
Dibromofluoromethane	53.4 UG/KG	83 - 113	131

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK42 PREP BLANK ID :GVBLK42 LCS ID :GVLCS42

LCSD ID :GVLCS42D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	FVBLK54
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/9/2002 18:56

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 1/1/2002	DILUTION	: 1
INSTRUMENT FILE	: F9131.D	INSTRUMENT ID	: F-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 16:03

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,1-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1,2,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,2-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethene	1.0	UG/L	ND	UG/L	
1,1-Dichloropropene	1.0	UG/L	ND	UG/L	
1,2,3-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,3-Trichloropropane	1.0	UG/L	ND	UG/L	
1,2,4-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,4-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,2-Dibromo-3-chloropropane	1.0	UG/L	ND	UG/L	
1,2-Dibromoethane	1.0	UG/L	ND	UG/L	
1,2-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,2-Dichloroethane	1.0	UG/L	ND	UG/L	
1,2-Dichloropropane	1.0	UG/L	ND	UG/L	
1,3,5-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,3-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,3-Dichloropropane	1.0	UG/L	ND	UG/L	
1,4-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1-Chlorohexane	1.0	UG/L	ND	UG/L	
2,2-Dichloropropane	1.0	UG/L	ND	UG/L	
2-Butanone	5.0	UG/L	ND	UG/L	
2-Chloroethyl vinyl ether	2.0	UG/L	ND	UG/L	
2-Chlorotoluene	1.0	UG/L	ND	UG/L	
2-Hexanone	5.0	UG/L	ND	UG/L	
4-Chlorotoluene	1.0	UG/L	ND	UG/L	
4-Methyl-2-pentanone	5.0	UG/L	ND	UG/L	
Acetone	5.0	UG/L	ND	UG/L	
Acrolein	5.0	UG/L	ND	UG/L	
Acrylonitrile	1.0	UG/L	ND	UG/L	
Benzene	1.0	UG/L	ND	UG/L	
Bromobenzene	1.0	UG/L	ND	UG/L	
Bromochloromethane	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	FVBLK54
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/9/2002 18:56

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	ND	UG/L	
Bromoform	1.0	UG/L	ND	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	ND	UG/L	
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	ND	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	ND	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	FVBLK54
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/9/2002 18:56

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	88
Dibromofluoromethane	10 UG/L	56 - 153	124
Toluene-d8	10 UG/L	68 - 124	106
1,2-Dichloroethane-d4	10 UG/L	64 - 130	114

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID : FVBLK54 PREP BLANK ID : FVBLK54

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	FVBLK55
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 18:56

% MOISTURE :		ANALYST :	RKG
CONTAINER ID :	UL	DATE ANALYZED :	1/2/2002
DILUTION :	1	INSTRUMENT FILE :	F9158.D
INSTRUMENT ID :	F-HP5973	SAMPLE WEIGHT :	5 g
TIME ANALYZED :	18:25		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.0	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.0	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.0	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1-Chlorohexane	5.0	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.0	UG/KG	ND	UG/KG	
Benzene	5.0	UG/KG	ND	UG/KG	
Bromobenzene	5.0	UG/KG	ND	UG/KG	
Bromochloromethane	5.0	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	FVBLK55
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 18:56

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.0	UG/KG	ND	UG/KG	
Bromoform	5.0	UG/KG	ND	UG/KG	
Bromomethane	5.0	UG/KG	ND	UG/KG	
Carbon disulfide	5.0	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.0	UG/KG	ND	UG/KG	
Chlorobenzene	5.0	UG/KG	ND	UG/KG	
Chloroethane	5.0	UG/KG	ND	UG/KG	
Chloroform	5.0	UG/KG	ND	UG/KG	
Chloromethane	5.0	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Dibromochloromethane	5.0	UG/KG	ND	UG/KG	
Dibromomethane	5.0	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.0	UG/KG	ND	UG/KG	
Ethyl benzene	5.0	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.0	UG/KG	ND	UG/KG	
Iodomethane	5.0	UG/KG	ND	UG/KG	
Isopropylbenzene	5.0	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.0	UG/KG	ND	UG/KG	
Methylene chloride	5.0	UG/KG	ND	UG/KG	
n-Butylbenzene	5.0	UG/KG	ND	UG/KG	
n-Propylbenzene	5.0	UG/KG	ND	UG/KG	
Naphthalene	5.0	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.0	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Styrene	5.0	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Tetrachloroethene	5.0	UG/KG	ND	UG/KG	
Toluene	5.0	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Trichloroethene	5.0	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.0	UG/KG	ND	UG/KG	
Vinyl Acetate	5.0	UG/KG	ND	UG/KG	
Vinyl chloride	5.0	UG/KG	ND	UG/KG	
Xylene (total)	5.0	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	FVBLK55
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 18:56

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	93
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	112
4-Bromofluorobenzene	50 UG/KG	83 - 116	95
Dibromofluoromethane	50 UG/KG	83 - 113	102

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :FVBLK55 PREP BLANK ID :FVBLK55

PDP Analytical Services
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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	:	CLIENT SAMPLE ID	: Prep Blank
PROJECT NAME	:	LAB SAMPLE ID	: GVBLK40
PROJECT NUMBER	:	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	:	DATE RECEIVED	:
SAMPLE MATRIX	: SOLID	PRINTED ON	: 1/9/2002 18:56

% MOISTURE	:	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 12/31/2001
DILUTION	: 1	INSTRUMENT FILE	: G5808.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5 g
TIME ANALYZED	: 11:31		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.0	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.0	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.0	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1-Chlorohexane	5.0	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.0	UG/KG	ND	UG/KG	
Benzene	5.0	UG/KG	ND	UG/KG	
Bromobenzene	5.0	UG/KG	ND	UG/KG	
Bromochloromethane	5.0	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK40
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 18:56

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.0	UG/KG	ND	UG/KG	
Bromoform	5.0	UG/KG	ND	UG/KG	
Bromomethane	5.0	UG/KG	ND	UG/KG	
Carbon disulfide	5.0	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.0	UG/KG	ND	UG/KG	
Chlorobenzene	5.0	UG/KG	ND	UG/KG	
Chloroethane	5.0	UG/KG	ND	UG/KG	
Chloroform	5.0	UG/KG	ND	UG/KG	
Chloromethane	5.0	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Dibromochloromethane	5.0	UG/KG	ND	UG/KG	
Dibromomethane	5.0	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.0	UG/KG	ND	UG/KG	
Ethyl benzene	5.0	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.0	UG/KG	ND	UG/KG	
Iodomethane	5.0	UG/KG	ND	UG/KG	
Isopropylbenzene	5.0	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.0	UG/KG	ND	UG/KG	
Methylene chloride	5.0	UG/KG	ND	UG/KG	
n-Butylbenzene	5.0	UG/KG	ND	UG/KG	
n-Propylbenzene	5.0	UG/KG	ND	UG/KG	
Naphthalene	5.0	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.0	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Styrene	5.0	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Tetrachloroethene	5.0	UG/KG	ND	UG/KG	
Toluene	5.0	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Trichloroethene	5.0	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.0	UG/KG	ND	UG/KG	
Vinyl Acetate	5.0	UG/KG	ND	UG/KG	
Vinyl chloride	5.0	UG/KG	ND	UG/KG	
Xylene (total)	5.0	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK40
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 18:56

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	111
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	97
4-Bromofluorobenzene	50 UG/KG	83 - 116	93
Dibromofluoromethane	50 UG/KG	83 - 113	103

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK40 PREP BLANK ID :GVBLK40

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	:	CLIENT SAMPLE ID	: Prep Blank
PROJECT NAME	:	LAB SAMPLE ID	: GVBLK41
PROJECT NUMBER	:	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	:	DATE RECEIVED	:
SAMPLE MATRIX	: SOLID	PRINTED ON	: 1/9/2002 18:56

% MOISTURE	:	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/1/2002
DILUTION	: 1	INSTRUMENT FILE	: G5838.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5 g
TIME ANALYZED	: 18:25		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.0	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.0	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.0	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1-Chlorohexane	5.0	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.0	UG/KG	ND	UG/KG	
Benzene	5.0	UG/KG	ND	UG/KG	
Bromobenzene	5.0	UG/KG	ND	UG/KG	
Bromochloromethane	5.0	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK41
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 18:56

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.0	UG/KG	ND	UG/KG	
Bromoform	5.0	UG/KG	ND	UG/KG	
Bromomethane	5.0	UG/KG	ND	UG/KG	
Carbon disulfide	5.0	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.0	UG/KG	ND	UG/KG	
Chlorobenzene	5.0	UG/KG	ND	UG/KG	
Chloroethane	5.0	UG/KG	ND	UG/KG	
Chloroform	5.0	UG/KG	ND	UG/KG	
Chloromethane	5.0	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Dibromochloromethane	5.0	UG/KG	ND	UG/KG	
Dibromomethane	5.0	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.0	UG/KG	ND	UG/KG	
Ethyl benzene	5.0	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.0	UG/KG	ND	UG/KG	
Iodomethane	5.0	UG/KG	ND	UG/KG	
Isopropylbenzene	5.0	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.0	UG/KG	ND	UG/KG	
Methylene chloride	5.0	UG/KG	ND	UG/KG	
n-Butylbenzene	5.0	UG/KG	ND	UG/KG	
n-Propylbenzene	5.0	UG/KG	ND	UG/KG	
Naphthalene	5.0	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.0	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Styrene	5.0	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Tetrachloroethene	5.0	UG/KG	ND	UG/KG	
Toluene	5.0	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Trichloroethene	5.0	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.0	UG/KG	ND	UG/KG	
Vinyl Acetate	5.0	UG/KG	ND	UG/KG	
Vinyl chloride	5.0	UG/KG	ND	UG/KG	
Xylene (total)	5.0	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK41
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 18:56

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	95
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	91
4-Bromofluorobenzene	50 UG/KG	83 - 116	90
Dibromofluoromethane	50 UG/KG	83 - 113	96

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK41 PREP BLANK ID :GVBLK41

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	:	CLIENT SAMPLE ID	: Prep Blank
PROJECT NAME	:	LAB SAMPLE ID	: GVBLK42
PROJECT NUMBER	:	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	:	DATE RECEIVED	:
SAMPLE MATRIX	: SOLID	PRINTED ON	: 1/9/2002 18:56

% MOISTURE	:	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: G5863.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5 g
TIME ANALYZED	: 11:58		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.0	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.0	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.0	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1-Chlorohexane	5.0	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.0	UG/KG	ND	UG/KG	
Benzene	5.0	UG/KG	ND	UG/KG	
Bromobenzene	5.0	UG/KG	ND	UG/KG	
Bromochloromethane	5.0	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK42
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 18:56

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.0	UG/KG	ND	UG/KG	
Bromoform	5.0	UG/KG	ND	UG/KG	
Bromomethane	5.0	UG/KG	ND	UG/KG	
Carbon disulfide	5.0	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.0	UG/KG	ND	UG/KG	
Chlorobenzene	5.0	UG/KG	ND	UG/KG	
Chloroethane	5.0	UG/KG	ND	UG/KG	
Chloroform	5.0	UG/KG	ND	UG/KG	
Chloromethane	5.0	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Dibromochloromethane	5.0	UG/KG	ND	UG/KG	
Dibromomethane	5.0	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.0	UG/KG	ND	UG/KG	
Ethyl benzene	5.0	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.0	UG/KG	ND	UG/KG	
Iodomethane	5.0	UG/KG	ND	UG/KG	
Isopropylbenzene	5.0	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.0	UG/KG	ND	UG/KG	
Methylene chloride	5.0	UG/KG	ND	UG/KG	
n-Butylbenzene	5.0	UG/KG	ND	UG/KG	
n-Propylbenzene	5.0	UG/KG	ND	UG/KG	
Naphthalene	5.0	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.0	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Styrene	5.0	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Tetrachloroethene	5.0	UG/KG	ND	UG/KG	
Toluene	5.0	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Trichloroethene	5.0	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.0	UG/KG	ND	UG/KG	
Vinyl Acetate	5.0	UG/KG	ND	UG/KG	
Vinyl chloride	5.0	UG/KG	ND	UG/KG	
Xylene (total)	5.0	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK42
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 18:56

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	107
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	91
4-Bromofluorobenzene	50 UG/KG	83 - 116	83
Dibromofluoromethane	50 UG/KG	83 - 113	99

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK42 PREP BLANK ID :GVBLK42

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	FVLCS54
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/9/2002 18:56

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 1/1/2002	DILUTION	: 1
INSTRUMENT FILE	: F9128.D	INSTRUMENT ID	: F-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 14:30

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	1.0 UG/L	8.6 UG/L	
Benzene	1.0 UG/L	11 UG/L	
Chlorobenzene	1.0 UG/L	10 UG/L	
Toluene	1.0 UG/L	9.8 UG/L	
Trichloroethene	1.0 UG/L	10 UG/L	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	85
Dibromofluoromethane	10 UG/L	56 - 153	103
Toluene-d8	10 UG/L	68 - 124	91
1,2-Dichloroethane-d4	10 UG/L	64 - 130	101

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID : FVBLK54 PREP BLANK ID : FVBLK54

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	FVLCS54D
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/9/2002 18:56

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 1/1/2002	DILUTION	: 1
INSTRUMENT FILE	: F9129.D	INSTRUMENT ID	: F-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 14:59

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	1.0 UG/L	10 UG/L	
Benzene	1.0 UG/L	11 UG/L	
Chlorobenzene	1.0 UG/L	10 UG/L	
Toluene	1.0 UG/L	10 UG/L	
Trichloroethene	1.0 UG/L	10 UG/L	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	91
Dibromofluoromethane	10 UG/L	56 - 153	106
Toluene-d8	10 UG/L	68 - 124	94
1,2-Dichloroethane-d4	10 UG/L	64 - 130	107

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID : FVBLK54 PREP BLANK ID : FVBLK54 LCS ID : FVLCS54

PDP Analytical Services

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LCS/LCSD SUMMARY REPORT

VOLATILES BY GC/MS

CLIENT NAME :
PROJECT NAME :
PROJECT NUMBER :

DATE RECEIVED :
PRINTED ON : 1/9/2002 18:56

SAMPLE MATRIX : LIQUID

METHOD REFERENCE : SW846-8260B

LAB CONTROL SAMPLE
LCS SAMPLE ID : FVLCS54
CLIENT SAMPLE ID :
DATE ANALYZED : 1/1/2002
INSTRUMENT FILE : F9128.D

LAB CONTROL SAMPLE DUPLICATE
LCSD SAMPLE ID : FVLCS54D
CLIENT SAMPLE ID :
DATE ANALYZED : 1/1/2002
INSTRUMENT FILE : F9129.D

PARAMETER	UNITS	LCS TRUE VALUE	LCSD TRUE VALUE	LCS FOUND VALUE	LCSD FOUND VALUE	LCS RECOVER (%)	LCSD RECOVERY (%)	RPD	RPD LIMIT	QC LIMIT REC.
1,1-Dichloroethene	UG/L	10.0	10.0	8.56	10.4	86	104	18.9	20	64 - 132
Benzene	UG/L	10.0	10.0	10.6	11.2	106	112	5.5	20	74 - 131
Chlorobenzene	UG/L	10.0	10.0	10.0	10.4	100	104	3.9	20	81 - 126
Toluene	UG/L	10.0	10.0	9.80	10.4	98	104	5.9	20	62 - 162
Trichloroethene	UG/L	10.0	10.0	10.0	10.4	100	104	3.9	20	67 - 132

* Indicate values outside of QC limits

RPD : 0 out of 5 outside limits
Spike Recovery : 0 out of 10 outside limits

PDP Analytical Services
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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	:	CLIENT SAMPLE ID	: Lab Control Sample
PROJECT NAME	:	LAB SAMPLE ID	: FVLCS55
PROJECT NUMBER	:	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	:	DATE RECEIVED	:
SAMPLE MATRIX	: SOLID	PRINTED ON	: 1/9/2002 18:56

% MOISTURE	:	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: F9155.D
INSTRUMENT ID	: F-HP5973	SAMPLE WEIGHT	: 5 g
TIME ANALYZED	: 16:46		

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	5.0 UG/KG	51 UG/KG	
Benzene	5.0 UG/KG	51 UG/KG	
Chlorobenzene	5.0 UG/KG	48 UG/KG	
Toluene	5.0 UG/KG	50 UG/KG	
Trichloroethene	5.0 UG/KG	48 UG/KG	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	96
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	114
4-Bromofluorobenzene	50 UG/KG	83 - 116	88
Dibromofluoromethane	50 UG/KG	83 - 113	105

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID : FVBLK55 PREP BLANK ID : FVBLK55

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	FVLCS55D
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 18:56

% MOISTURE :		ANALYST	: RKG
CONTAINER ID :	UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: F9156.D
INSTRUMENT ID	: F-HP5973	SAMPLE WEIGHT	: 5 g
TIME ANALYZED	: 17:16		

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	5.0 UG/KG	53 UG/KG	
Benzene	5.0 UG/KG	53 UG/KG	
Chlorobenzene	5.0 UG/KG	52 UG/KG	
Toluene	5.0 UG/KG	51 UG/KG	
Trichloroethene	5.0 UG/KG	50 UG/KG	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	92
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	111
4-Bromofluorobenzene	50 UG/KG	83 - 116	88
Dibromofluoromethane	50 UG/KG	83 - 113	101

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID : FVBLK55 PREP BLANK ID : FVBLK55 LCS ID : FVLCS55

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LCS/LCSD SUMMARY REPORT

VOLATILES BY GC/MS

CLIENT NAME :
PROJECT NAME :
PROJECT NUMBER :

DATE RECEIVED :
PRINTED ON : 1/9/2002 18:56

SAMPLE MATRIX : SOLID

METHOD REFERENCE : SW846-8260B

LAB CONTROL SAMPLE

LCS SAMPLE ID : FVLCS55
CLIENT SAMPLE ID :
DATE ANALYZED : 1/2/2002
INSTRUMENT FILE : F9155.D

LAB CONTROL SAMPLE DUPLICATE

LCSD SAMPLE ID : FVLCS55D
CLIENT SAMPLE ID :
DATE ANALYZED : 1/2/2002
INSTRUMENT FILE : F9156.D

PARAMETER	UNITS	LCS TRUE VALUE	LCSD TRUE VALUE	LCS FOUND VALUE	LCSD FOUND VALUE	LCS RECOVER (%)	LCSD RECOVERY (%)	RPD	RPD LIMIT	QC LIMIT REC.
1,1-Dichloroethene	UG/KG	50.0	50.0	51.4	53.2	103	106	2.9	20	62 - 136
Benzene	UG/KG	50.0	50.0	51.3	53.4	103	107	3.8	20	69 - 130
Chlorobenzene	UG/KG	50.0	50.0	48.1	51.8	96	104	8.0	20	72 - 112
Toluene	UG/KG	50.0	50.0	49.9	51.2	100	102	2.0	20	66 - 137
Trichloroethene	UG/KG	50.0	50.0	47.8	49.6	96	99	3.1	20	62 - 138

* Indicate values outside of QC limits

RPD : 0 out of 5 outside limits
Spike Recovery : 0 out of 10 outside limits

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	GVLCS40
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 18:56

% MOISTURE :		ANALYST :	RKG
CONTAINER ID :	UL	DATE ANALYZED :	12/31/2001
DILUTION :	1	INSTRUMENT FILE :	G5806.D
INSTRUMENT ID :	G-HP5973	SAMPLE WEIGHT :	5 g
TIME ANALYZED :	10:22		

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	5.0 UG/KG	51 UG/KG	
Benzene	5.0 UG/KG	47 UG/KG	
Chlorobenzene	5.0 UG/KG	47 UG/KG	
Toluene	5.0 UG/KG	47 UG/KG	
Trichloroethene	5.0 UG/KG	50 UG/KG	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	96
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	85
4-Bromofluorobenzene	50 UG/KG	83 - 116	89
Dibromofluoromethane	50 UG/KG	83 - 113	86

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK40 PREP BLANK ID :GVBLK40

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	GVLCS40D
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 18:56

% MOISTURE :		ANALYST	: RKG
CONTAINER ID :	UL	DATE ANALYZED	: 12/31/2001
DILUTION	: 1	INSTRUMENT FILE	: G5807.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5 g
TIME ANALYZED	: 10:52		

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	5.0 UG/KG	48 UG/KG	
Benzene	5.0 UG/KG	44 UG/KG	
Chlorobenzene	5.0 UG/KG	44 UG/KG	
Toluene	5.0 UG/KG	45 UG/KG	
Trichloroethene	5.0 UG/KG	47 UG/KG	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	97
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	87
4-Bromofluorobenzene	50 UG/KG	83 - 116	90
Dibromofluoromethane	50 UG/KG	83 - 113	87

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK40 PREP BLANK ID :GVBLK40 LCS ID :GVLCS40

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LCS/LCSD SUMMARY REPORT

VOLATILES BY GC/MS

CLIENT NAME :
PROJECT NAME :
PROJECT NUMBER :

DATE RECEIVED :
PRINTED ON : 1/9/2002 18:56

SAMPLE MATRIX : SOLID

METHOD REFERENCE : SW846-8260B

LAB CONTROL SAMPLE

LCS SAMPLE ID : GVLCS40
CLIENT SAMPLE ID :
DATE ANALYZED : 12/31/2001
INSTRUMENT FILE : G5806.D

LAB CONTROL SAMPLE DUPLICATE

LCSD SAMPLE ID : GVLCS40D
CLIENT SAMPLE ID :
DATE ANALYZED : 12/31/2001
INSTRUMENT FILE : G5807.D

PARAMETER	UNITS	LCS TRUE VALUE	LCSD TRUE VALUE	LCS FOUND VALUE	LCSD FOUND VALUE	LCS RECOVER (%)	LCSD RECOVERY (%)	RPD	RPD LIMIT	QC LIMIT REC.
1,1-Dichloroethene	UG/KG	50.0	50.0	51.0	48.0	102	96	6.1	20	62 - 136
Benzene	UG/KG	50.0	50.0	46.6	44.0	93	88	5.5	20	69 - 130
Chlorobenzene	UG/KG	50.0	50.0	46.7	44.0	93	88	5.5	20	72 - 112
Toluene	UG/KG	50.0	50.0	47.1	45.1	94	90	4.3	20	66 - 137
Trichloroethene	UG/KG	50.0	50.0	49.6	47.2	99	94	5.2	20	62 - 138

* Indicate values outside of QC limits

RPD : 0 out of 5 outside limits
Spike Recovery : 0 out of 10 outside limits

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	GVLCS41
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 18:56

% MOISTURE :		ANALYST	: RKG
CONTAINER ID :	UL	DATE ANALYZED	: 1/1/2002
DILUTION	: 1	INSTRUMENT FILE	: G5841.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5 g
TIME ANALYZED	: 19:56		

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	5.0 UG/KG	38 UG/KG	
Benzene	5.0 UG/KG	40 UG/KG	
Chlorobenzene	5.0 UG/KG	41 UG/KG	
Toluene	5.0 UG/KG	41 UG/KG	
Trichloroethene	5.0 UG/KG	39 UG/KG	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	102
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	101
4-Bromofluorobenzene	50 UG/KG	83 - 116	95
Dibromofluoromethane	50 UG/KG	83 - 113	102

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK41 PREP BLANK ID :GVBLK41

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	GVLCS41D
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 18:56

% MOISTURE :		ANALYST :	RKG
CONTAINER ID :	UL	DATE ANALYZED :	1/1/2002
DILUTION :	1	INSTRUMENT FILE :	G5836.D
INSTRUMENT ID :	G-HP5973	SAMPLE WEIGHT :	5 g
TIME ANALYZED :	17:22		

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	5.0 UG/KG	50 UG/KG	
Benzene	5.0 UG/KG	53 UG/KG	
Chlorobenzene	5.0 UG/KG	51 UG/KG	
Toluene	5.0 UG/KG	50 UG/KG	
Trichloroethene	5.0 UG/KG	50 UG/KG	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	91
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	92
4-Bromofluorobenzene	50 UG/KG	83 - 116	84
Dibromofluoromethane	50 UG/KG	83 - 113	93

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK41 PREP BLANK ID :GVBLK41 LCS ID :GVLCS41

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LCS/LCSD SUMMARY REPORT

VOLATILES BY GC/MS

CLIENT NAME :
PROJECT NAME :
PROJECT NUMBER :

DATE RECEIVED :
PRINTED ON : 1/9/2002 18:56

SAMPLE MATRIX : SOLID

METHOD REFERENCE : SW846-8260B

LAB CONTROL SAMPLE

LCS SAMPLE ID : GVLCS41
CLIENT SAMPLE ID :
DATE ANALYZED : 1/1/2002
INSTRUMENT FILE : G5841.D

LAB CONTROL SAMPLE DUPLICATE

LCSD SAMPLE ID : GVLCS41D
CLIENT SAMPLE ID :
DATE ANALYZED : 1/1/2002
INSTRUMENT FILE : G5836.D

PARAMETER	UNITS	LCS TRUE VALUE	LCSD TRUE VALUE	LCS FOUND VALUE	LCSD FOUND VALUE	LCS RECOVER (%)	LCSD RECOVERY (%)	RPD	RPD LIMIT	QC LIMIT REC.
1,1-Dichloroethene	UG/KG	50.0	50.0	37.6	50.3	75	101	29.5 *	20	62 - 136
Benzene	UG/KG	50.0	50.0	40.5	53.0	81	106	26.7 *	20	69 - 130
Chlorobenzene	UG/KG	50.0	50.0	40.9	50.7	82	101	20.8 *	20	72 - 112
Toluene	UG/KG	50.0	50.0	40.7	50.3	81	101	22.0 *	20	66 - 137
Trichloroethene	UG/KG	50.0	50.0	38.7	50.1	77	100	26.0 *	20	62 - 138

* Indicate values outside of QC limits

RPD : 5 out of 5 outside limits
Spike Recovery : 0 out of 10 outside limits

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	GVLCS42
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 18:56

% MOISTURE :		ANALYST :	RKG
CONTAINER ID :	UL	DATE ANALYZED :	1/2/2002
DILUTION :	1	INSTRUMENT FILE :	G5861.D
INSTRUMENT ID :	G-HP5973	SAMPLE WEIGHT :	5 g
TIME ANALYZED :	10:58		

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	5.0 UG/KG	49 UG/KG	
Benzene	5.0 UG/KG	43 UG/KG	
Chlorobenzene	5.0 UG/KG	45 UG/KG	
Toluene	5.0 UG/KG	45 UG/KG	
Trichloroethene	5.0 UG/KG	46 UG/KG	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	107
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	91
4-Bromofluorobenzene	50 UG/KG	83 - 116	96
Dibromofluoromethane	50 UG/KG	83 - 113	96

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK42 PREP BLANK ID :GVBLK42

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	GVLCS42D
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 18:56

% MOISTURE :		ANALYST	: RKG
CONTAINER ID :	UL	DATE ANALYZED	: 1/2/2002
DILUTION	: 1	INSTRUMENT FILE	: G5864.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5 g
TIME ANALYZED	: 12:52		

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	5.0 UG/KG	47 UG/KG	
Benzene	5.0 UG/KG	45 UG/KG	
Chlorobenzene	5.0 UG/KG	49 UG/KG	
Toluene	5.0 UG/KG	47 UG/KG	
Trichloroethene	5.0 UG/KG	47 UG/KG	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	106
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	95
4-Bromofluorobenzene	50 UG/KG	83 - 116	94
Dibromofluoromethane	50 UG/KG	83 - 113	96

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK42 PREP BLANK ID :GVBLK42 LCS ID :GVLCS42

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LCS/LCSD SUMMARY REPORT

VOLATILES BY GC/MS

CLIENT NAME :
PROJECT NAME :
PROJECT NUMBER :

DATE RECEIVED :
PRINTED ON : 1/9/2002 18:56

SAMPLE MATRIX : SOLID

METHOD REFERENCE : SW846-8260B

LAB CONTROL SAMPLE

LCS SAMPLE ID : GVLCS42
CLIENT SAMPLE ID :
DATE ANALYZED : 1/2/2002
INSTRUMENT FILE : G5861.D

LAB CONTROL SAMPLE DUPLICATE

LCSD SAMPLE ID : GVLCS42D
CLIENT SAMPLE ID :
DATE ANALYZED : 1/2/2002
INSTRUMENT FILE : G5864.D

PARAMETER	UNITS	LCS TRUE VALUE	LCSD TRUE VALUE	LCS FOUND VALUE	LCSD FOUND VALUE	LCS RECOVER (%)	LCSD RECOVERY (%)	RPD	RPD LIMIT	QC LIMIT REC.
1,1-Dichloroethene	UG/KG	50.0	50.0	49.3	47.4	99	95	4.1	20	62 - 136
Benzene	UG/KG	50.0	50.0	43.1	44.7	86	89	3.4	20	69 - 130
Chlorobenzene	UG/KG	50.0	50.0	45.3	49.0	91	98	7.4	20	72 - 112
Toluene	UG/KG	50.0	50.0	44.6	47.1	89	94	5.5	20	66 - 137
Trichloroethene	UG/KG	50.0	50.0	46.5	47.1	93	94	1.1	20	62 - 138

* Indicate values outside of QC limits

RPD : 0 out of 5 outside limits
Spike Recovery : 0 out of 10 outside limits

END OF REPORT

TOTAL NUMBER OF PAGES: 159

PDP
Analytical Services

1680 Lake Front Circle, Suite B
The Woodlands, Texas 77380
Phone (281) 363-2233
Fax (281) 298-5784
e-mail pdp@pdpanalytical.com

January 9, 2002

Mr. Greg Watterson
MEVATEC Corporation
P.O. Box 399
Bldg. 126
WSMR, NM 88002

Episode: 7426
Project ID: 800-A9

Dear Mr. Watterson:

Enclosed are the analytical results for the samples received in our laboratory on December 20th, 2001. The samples were analyzed for the parameters indicated on the Chain-of-Custody (COC).

Please be advised that unused portions of your samples, sample extracts and digestates will be stored for 30 days from the date of this report. Unless prior arrangements were made, at the end of this period your samples will either be disposed of, or returned to you if your samples were determined to be hazardous.

Should you have any questions or need assistance with this report, please feel free to call me, at (281) 363-2233.

Sincerely,

Dr. Siva S Palchuru, Ph.D.
Laboratory Director

Enclosures
cc: Episode File – 7426

PDP Analytical Services
1630 Lake Front Circle, Suite B, The Woodlands, TX 77380

Lab Qualifiers

Qualifier	Definition
B	This flag is used when the analyte is found in the associated blank as well as in the sample.
D	Indicates that the compound could not be detected because it was diluted out.
DL	This flag identifies an analysis at a secondary delution factor.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. A more accurate quantitation is obtained from a diluted sample analysis.
I	This flag is used to indicate the presence of interference, which resulted in not determining the value.
J	This flag is used when the data indicates the presence of a compound below the quantitation limit determined by the identification criteria.
NA	Not Applicable.
NC	Not Calculated.
NO	Indicates a compound was analyzed for but not detected at the quantitation level..
P	This flag is used for a pesticide/aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns.
RE	This flag is used when the sample is re-extracted and re-analyzed.
RA	This flag is used when the sample is re-analyzed.
U	This flag indicates that the compound was analyzed for but not detected.
*	Indicates that the compound is out of the Quality Control Limits.

CHAIN OF CUSTODY

PDP PO# 01P-2055

MEVATEC CORPORATION
P.O. Box 399
Bldg. 126
WSMR, NM 88002
(505) 678-0263

CHAIN OF CUSTODY RECORD

PROJECT NO.: 800A9
PROJECT NAME: HWSF Evaporation Tank
SAMPLER'S SIGNATURE: [signature]

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	8260	Temperature	REMARKS
12-18-01	1102	HWSF-SB05-(1.5-2.0)	Soil		1	X		7426.001
	1110	HWSF-SB05-(3.5-4.0)			1	X		.002
	1114	HWSF-SB05-(5.5-6.0)			1	X		.003
	1124	HWSF-SB05-(11.5-12.0)			1	X		.004
	1145	HWSF-SB05-(19.5-20.0)			1	X		.005
	1202	HWSF-SB05-(24.5-25.0)			1	X		.006
	1225	HWSF-SB06-(1.5-2.0)			1	X		.007
	1231	HWSF-SB06-(3.0-4.0)			1	X		.008
	1236	HWSF-SB06-(5.5-6.0)			1	X		.009
	1250	HWSF-SB06-(11.5-12.0)			1	X		.010
	1311	HWSF-SB06-(19.5-20.0)			1	X		.011
	1321	HWSF-SB06-(24.5-25.0)			1	X		.012
	0830	HWSF-TB-02	Aqueous		3	X		Trip Blank .013
	0830	~~HWSF~~ GW Temperature Blank			1		X	Temp Blank
	1330	HWSF-SB06-EB			3	X		Equipment Blank .014
	1330	HWSF-SB06-Tap Water			3	X		Sample of Tap Water .015
	1351	HWSF-SB07-(1.5-2.0)	Soil		1	X		.016
	1358	HWSF-SB07-(3.5-4.0)	Soil		1	X		.017

PROJECT INFORMATION			1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER: William Little	SAMPLES RECEIVED		[signature]		VV REDDY
	TOTAL NO. OF CONTAINERS		(PRINTED NAME) Greg Watterson	(PRINTED NAME)	(PRINTED NAME) PDP
SHIPPING ID. NO.	CHAIN OF CUSTODY SEALS		RECEIVED BY:	RECEIVED BY:	(COMPANY)
VIA: FedEx	GOOD CONDITION/CHILLED		(TIME / DATE)	(TIME / DATE)	(TIME / DATE) 10:30 12-20-2001
	CONFORMS TO RECORD		SPECIAL INSTRUCTIONS / COMMENTS:		

PLEASE USE BALL POINT PEN

DISTRIBUTION: WHITE - PROJECT FILES; YELLOW - LAB; PINK - FIELD COPY

PDP PO # 01P-2055

MEVATEC CORPORATION
P.O. Box 399
Bldg. 126
WSMR, NM 88002
(505) 678-0263

CHAIN OF CUSTODY RECORD

PROJECT NO.: 500A9
PROJECT NAME: HWSF Evaporation Tank
SAMPLER'S SIGNATURE: [signature]

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	ANALYSIS REQUESTED: 8260	REMARKS
12-5-01	1403	HWSF-SB07-(5.5-6.0)	Soil		1	X	7426.018
	1414	HWSF-SB07-(11.5-12.0)			1	X	.019
	1442	HWSF-SB07-(19.5-20.0)			1	X	.020
	1457	HWSF-SB07-(24.0-25.0)			1	X	.021
	1601	HWSF-SB08-(1.5-2.0)			1	X	.022
	1610	HWSF-SB08-(3.5-4.0)			1	X	.023
	1614	HWSF-SB08-(5.5-6.0)			1	X	.024
	1623	HWSF-SB08-(11.5-12.0)			1	X	.025
	1645	HWSF-SB08-(19.5-20.0)			1	X	.026
	1655	HWSF-SB08-(24.5-25.0)			1	X	.027

PROJECT INFORMATION		
PROJECT MANAGER: Will Little	SAMPLES RECEIVED	
SHIPPING ID. NO.	TOTAL NO. OF CONTAINERS	
VIA: FedEx	CHAIN OF CUSTODY SEALS	
	GOOD CONDITION/CHILLED	
	CONFORMS TO RECORD	

1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
[signature]		V V B REDDY
(PRINTED NAME) Greg Watkins	(PRINTED NAME)	(PRINTED NAME) PDP
RECEIVED BY:	RECEIVED BY:	(COMPANY) 10:30 12-20-2001
(TIME / DATE)	(TIME / DATE)	(TIME / DATE)

SPECIAL INSTRUCTIONS / COMMENTS:

PLEASE USE BALL POINT PEN

DISTRIBUTION: WHITE - PROJECT FILES; YELLOW - LA[illegible]NK - FIELD COPY

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands TX 77380
Sample Log-In Report

Logged By: HP

Report Date: 12/20/2001 17:27:38

Client Name: MEVATEC CORPORATION
Client Project Name: HWSF EVAPORATION TANK
ClientProject #: 800A9
P.O. No.: 01P-2055
Courier/No.:

Lab Project ID: Q1702
Date Logged: 12/20/01
Date Received: 12/20/01
Time Received: 10:30

Lab Sample ID	Client Sample ID	No. Cont.	Sample Matrix	Date Sampled	Time Sampled	Chain Of Custody No.	Date Due	Remarks
7426.001	HWSF-SB05-(1.5-2.0)	1	SOIL	12/18/01	11:02	7426-1		
	Tests Required							
	- VOA8260B						01/10/02	
7426.002	HWSF-SB05-(3.5-4.0)	1	SOIL	12/18/01	11:10	7426-1		
	Tests Required							
	- VOA8260B						01/10/02	
7426.003	HWSF-SB05-(5.5-6.0)	1	SOIL	12/18/01	11:14	7426-1		
	Tests Required							
	- VOA8260B						01/10/02	
7426.004	HWSF-SB05-(11.5-12.0)	1	SOIL	12/18/01	11:24	7426-1		
	Tests Required							
	- VOA8260B						01/10/02	
7426.005	HWSF-SB05-(19.5-20.0)	1	SOIL	12/18/01	11:45	7426-1		
	Tests Required							
	- VOA8260B						01/10/02	
7426.006	HWSF-SB05-(24.5-25.0)	1	SOIL	12/18/01	12:02	7426-1		
	Tests Required							
	- VOA8260B						01/10/02	
7426.007	HWSF-SB06-(1.5-2.0)	1	SOIL	12/18/01	12:25	7426-1		
	Tests Required							
	- VOA8260B						01/10/02	
7426.008	HWSF-SB06-(3.0-4.0)	1	SOIL	12/18/01	12:31	7426-1		
	Tests Required							
	- VOA8260B						01/10/02	
7426.009	HWSF-SB06-(5.5-6.0)	1	SOIL	12/18/01	12:36	7426-1		
	Tests Required							
	- VOA8260B						01/10/02	
7426.010	HWSF-SB06-(11.5-12.0)	1	SOIL	12/18/01	12:50	7426-1		
	Tests Required							
	- VOA8260B						01/10/02	
7426.011	HWSF-SB06-(19.5-20.0)	1	SOIL	12/18/01	13:11	7426-1		
	Tests Required							
	- VOA8260B						01/10/02	
7426.012	HWSF-SB06-(24.5-25.0)	1	SOIL	12/18/01	13:21	7426-1		
	Tests Required							
	- VOA8260B						01/10/02	

12/20/01 Lab Approval

Client Approval

0000005

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands TX 77380
Sample Log-In Report

Logged By: HP **Report Date:** 12/20/2001 17:27:38

Client Name: MEVATEC CORPORATION **Lab Project ID:** Q1702
Client Project Name: HWSF EVAPORATION TANK **Date Logged:** 12/20/01
ClientProject #: 800A9 **Date Received:** 12/20/01
P.O. No.: 01P-2055 **Time Received:** 10:30
Courier/No.:

Lab Sample ID	Client Sample ID	No. Cont.	Sample Matrix	Date Sampled	Time Sampled	Chain Of Custody No.	Date Due	Remarks
7426.013	HWSF-TB-02	3	WATER	12/18/01	08:30	7426-1		
	Tests Required							
	- VOA8260B						01/10/02	
7426.014	HWSF-SB06-EB	3	WATER	12/18/01	13:30	7426-1		
	Tests Required							
	- VOA8260B						01/10/02	
7426.015	HWSF-B06-TAP WATER	3	WATER	12/18/01	13:30	7426-1		
	Tests Required							
	- VOA8260B						01/10/02	
7426.016	HWSF-SB07-(1.5-2.0)	1	SOIL	12/18/01	13:51	7426-1		
	Tests Required							
	- VOA8260B						01/10/02	
7426.017	HWSF-SB07-(3.5-4.0)	1	SOIL	12/18/01	13:58	7426-1		
	Tests Required							
	- VOA8260B						01/10/02	
7426.018	HWSF-SB07-(5.5-6.0)	1	SOIL	12/18/01	14:03	7426-2		
	Tests Required							
	- VOA8260B						01/10/02	
7426.019	HWSF-SB07-(11.5-12.0)	1	SOIL	12/18/01	14:14	7426-2		
	Tests Required							
	- VOA8260B						01/10/02	
7426.020	HWSF-SB07-(19.5-20.0)	1	SOIL	12/18/01	14:42	7426-2		
	Tests Required							
	- VOA8260B						01/10/02	
7426.021	HWSF-SB07-(24.0-25.0)	1	SOIL	12/18/01	14:57	7426-2		
	Tests Required							
	- VOA8260B						01/10/02	
7426.022	HWSF-SB08-(1.5-2.0)	1	SOIL	12/18/01	16:01	7426-2		
	Tests Required							
	- VOA8260B						01/10/02	
7426.023	HWSF-SB08-(3.5-4.0)	1	SOIL	12/18/01	16:10	7426-2		
	Tests Required							
	- VOA8260B						01/10/02	
7426.024	HWSF-SB08-(5.5-6.0)	1	SOIL	12/18/01	16:14	7426-2		
	Tests Required							
	- VOA8260B						01/10/02	

12/20/01 **Lab Approval** **Client Approval** 0000006

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands TX 77380
Sample Log-In Report

Logged By: HP

Report Date: 12/20/2001 17:27:38

Client Name: MEVATEC CORPORATION
Client Project Name: HWSF EVAPORATION TANK
ClientProject #: 800A9
P.O. No.: 01P-2055
Courier/No.:

Lab Project ID: Q1702
Date Logged: 12/20/01
Date Received: 12/20/01
Time Received: 10:30

Lab Sample ID	Client Sample ID	No. Cont.	Sample Matrix	Date Sampled	Time Sampled	Chain Of Custody No.	Date Due	Remarks
7426.025	HWSF-SB08-(11.5-12.0)	1	SOIL	12/18/01	16:23	7426-2		
	Tests Required							
	- VOA8260B						01/10/02	
7426.026	HWSF-SB08-(19.5-20.0)	1	SOIL	12/18/01	16:45	7426-2		
	Tests Required							
	- VOA8260B						01/10/02	
7426.027	HWSF-SB08-(24.5-25.0)	1	SOIL	12/18/01	16:55	7426-2		
	Tests Required							
	- VOA8260B						01/10/02	

Instructions To Lab:

12/20/01
Lab Approval

Client Approval

0000007

PDP ANALYTICAL SERVICES
1680 Lake Front Circle, Suite B, The Woodlands, TX 77380
SAMPLE LOG-IN CHECKLIST/DISCREPANCY REPORT

EPISODE #: 7426 DATE/ REC'D: 12-20-2001 TIME 10:30 TEMP & ID: 1) 4°C #

CLIENT NAME: MevaTech 2) #

PROJECT NAME: HNSF Evaporation Tank 3) #

PROJECT NUMBER: 800 A9 4) #

3 AQUEOUS, # 24 SOIL SAMPLES 5)

COURIER/AIRBILL # 7917 3668 6760 6) #

SAMPLE CONTAINER SEALS: (present) absent intact broken

COOLER CUSTODY SEALS: (present) absent intact broken NAME & DATE:

HOW MANY AND WHERE

	YES	NO
Were samples screened for radioactivity?	✓	
Chain-of-custody present?	✓	
Custody documents: Sealed in a plastic bag?	✓	
Signed and dated by field personnel	✓	
Filled out properly in indelable ink?	✓	
Signed and dated by log-in personnel?	✓	
Container Condition: Each containers sealed in a separate plastic bag?	✓	
Labels complete (ID, date, time, signature, preservative, etc.)?	✓	
Labels agree with chain-of-custody?	✓	
Received without leakage or breakage? If no, list :	✓	
Correct quantity indicated on chain-of-custody?	✓	
Sample Integrity: Correct containers used for the test indicated? If no, list:	✓	
Correct preservatives added to the samples? If no, list:	✓	
Sufficient sample amount sent for the tests indicated? If no, list	✓	
VOA vials filled completely? If no, list:	✓	
Aqueous volatiles samples preserved? If no, list:		

Descrepancy Report:

Discepancies to be discussed with the client?

Project Manager's recommendations?

Who was notified? By whom? Date:

Client's comments:

Corrective actions carried out?

COMMENTS:

For those short holding time and fast turn-around parameters, has a Rush Notification sheet been issued to the lab?	

LOG-IN BY: DATE: 12/20/2001

0000008

Z:\Forms\Admin\scdr0398.doc

VOA

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB05-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.001
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:50

% MOISTURE	: 16.49	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5782.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.22 g
TIME ANALYZED	: 12:25		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.7	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.7	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.7	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.7	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.7	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.7	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.7	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.7	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.7	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.7	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.7	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.7	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.7	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.7	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.7	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.7	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.7	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.7	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.7	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.7	UG/KG	ND	UG/KG	
1-Chlorohexane	5.7	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.7	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.7	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.7	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.7	UG/KG	ND	UG/KG	
Benzene	5.7	UG/KG	ND	UG/KG	
Bromobenzene	5.7	UG/KG	ND	UG/KG	
Bromochloromethane	5.7	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB05-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.001
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:50

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.7	UG/KG	ND	UG/KG	
Bromoform	5.7	UG/KG	ND	UG/KG	
Bromomethane	5.7	UG/KG	ND	UG/KG	
Carbon disulfide	5.7	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.7	UG/KG	ND	UG/KG	
Chlorobenzene	5.7	UG/KG	ND	UG/KG	
Chloroethane	5.7	UG/KG	ND	UG/KG	
Chloroform	5.7	UG/KG	ND	UG/KG	
Chloromethane	5.7	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.7	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.7	UG/KG	ND	UG/KG	
Dibromochloromethane	5.7	UG/KG	ND	UG/KG	
Dibromomethane	5.7	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.7	UG/KG	ND	UG/KG	
Ethyl benzene	5.7	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.7	UG/KG	ND	UG/KG	
Iodomethane	5.7	UG/KG	ND	UG/KG	
Isopropylbenzene	5.7	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.7	UG/KG	ND	UG/KG	
Methylene chloride	5.7	UG/KG	ND	UG/KG	
n-Butylbenzene	5.7	UG/KG	ND	UG/KG	
n-Propylbenzene	5.7	UG/KG	ND	UG/KG	
Naphthalene	5.7	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.7	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.7	UG/KG	ND	UG/KG	
Styrene	5.7	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.7	UG/KG	ND	UG/KG	
Tetrachloroethene	5.7	UG/KG	ND	UG/KG	
Toluene	5.7	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.7	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.7	UG/KG	ND	UG/KG	
Trichloroethene	5.7	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.7	UG/KG	ND	UG/KG	
Vinyl Acetate	5.7	UG/KG	ND	UG/KG	
Vinyl chloride	5.7	UG/KG	ND	UG/KG	
Xylene (total)	5.7	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB05-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.001
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:50

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	57.3 UG/KG	85 - 112	102
1,2-Dichloroethane-d4	57.3 UG/KG	77 - 122	85
4-Bromofluorobenzene	57.3 UG/KG	83 - 116	96
Dibromofluoromethane	57.3 UG/KG	83 - 113	90

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38 LCS ID :GVLCS38

LCSD ID :GVLCS38D

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB05-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.002
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:50

% MOISTURE	: 14.37	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5783.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.22 g
TIME ANALYZED	: 12:56		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.6	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.6	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.6	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.6	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.6	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.6	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.6	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.6	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.6	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.6	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.6	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.6	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.6	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.6	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.6	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.6	UG/KG	ND	UG/KG	
1-Chlorohexane	5.6	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.6	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.6	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.6	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.6	UG/KG	ND	UG/KG	
Benzene	5.6	UG/KG	ND	UG/KG	
Bromobenzene	5.6	UG/KG	ND	UG/KG	
Bromochloromethane	5.6	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB05-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.002
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.6	UG/KG	ND	UG/KG	
Bromoform	5.6	UG/KG	ND	UG/KG	
Bromomethane	5.6	UG/KG	ND	UG/KG	
Carbon disulfide	5.6	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.6	UG/KG	ND	UG/KG	
Chlorobenzene	5.6	UG/KG	ND	UG/KG	
Chloroethane	5.6	UG/KG	ND	UG/KG	
Chloroform	5.6	UG/KG	ND	UG/KG	
Chloromethane	5.6	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.6	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.6	UG/KG	ND	UG/KG	
Dibromochloromethane	5.6	UG/KG	ND	UG/KG	
Dibromomethane	5.6	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.6	UG/KG	ND	UG/KG	
Ethyl benzene	5.6	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.6	UG/KG	ND	UG/KG	
Iodomethane	5.6	UG/KG	ND	UG/KG	
Isopropylbenzene	5.6	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.6	UG/KG	ND	UG/KG	
Methylene chloride	5.6	UG/KG	ND	UG/KG	
n-Butylbenzene	5.6	UG/KG	ND	UG/KG	
n-Propylbenzene	5.6	UG/KG	ND	UG/KG	
Naphthalene	5.6	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.6	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.6	UG/KG	ND	UG/KG	
Styrene	5.6	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.6	UG/KG	ND	UG/KG	
Tetrachloroethene	5.6	UG/KG	ND	UG/KG	
Toluene	5.6	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.6	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.6	UG/KG	ND	UG/KG	
Trichloroethene	5.6	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.6	UG/KG	ND	UG/KG	
Vinyl Acetate	5.6	UG/KG	ND	UG/KG	
Vinyl chloride	5.6	UG/KG	ND	UG/KG	
Xylene (total)	5.6	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB05-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.002
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	55.9 UG/KG	85 - 112	105
1,2-Dichloroethane-d4	55.9 UG/KG	77 - 122	86
4-Bromofluorobenzene	55.9 UG/KG	83 - 116	100
Dibromofluoromethane	55.9 UG/KG	83 - 113	89

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38 LCS ID :GVLCS38

LCSD ID :GVLCS38D

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB05-(5.5-6.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.003
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 13:51

% MOISTURE	: 5.258	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5784.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.04 g
TIME ANALYZED	: 13:28		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.2	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.2	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.2	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.2	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.2	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.2	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.2	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.2	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.2	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.2	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.2	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.2	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.2	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.2	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.2	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1-Chlorohexane	5.2	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.2	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.2	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.2	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.2	UG/KG	ND	UG/KG	
Benzene	5.2	UG/KG	ND	UG/KG	
Bromobenzene	5.2	UG/KG	ND	UG/KG	
Bromochloromethane	5.2	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB05-(5.5-6.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.003
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.2	UG/KG	ND	UG/KG	
Bromoform	5.2	UG/KG	ND	UG/KG	
Bromomethane	5.2	UG/KG	ND	UG/KG	
Carbon disulfide	5.2	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.2	UG/KG	ND	UG/KG	
Chlorobenzene	5.2	UG/KG	ND	UG/KG	
Chloroethane	5.2	UG/KG	ND	UG/KG	
Chloroform	5.2	UG/KG	ND	UG/KG	
Chloromethane	5.2	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.2	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.2	UG/KG	ND	UG/KG	
Dibromochloromethane	5.2	UG/KG	ND	UG/KG	
Dibromomethane	5.2	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.2	UG/KG	ND	UG/KG	
Ethyl benzene	5.2	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.2	UG/KG	ND	UG/KG	
Iodomethane	5.2	UG/KG	ND	UG/KG	
Isopropylbenzene	5.2	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.2	UG/KG	ND	UG/KG	
Methylene chloride	5.2	UG/KG	ND	UG/KG	
n-Butylbenzene	5.2	UG/KG	ND	UG/KG	
n-Propylbenzene	5.2	UG/KG	ND	UG/KG	
Naphthalene	5.2	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.2	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.2	UG/KG	ND	UG/KG	
Styrene	5.2	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.2	UG/KG	ND	UG/KG	
Tetrachloroethene	5.2	UG/KG	ND	UG/KG	
Toluene	5.2	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.2	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.2	UG/KG	ND	UG/KG	
Trichloroethene	5.2	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.2	UG/KG	ND	UG/KG	
Vinyl Acetate	5.2	UG/KG	ND	UG/KG	
Vinyl chloride	5.2	UG/KG	ND	UG/KG	
Xylene (total)	5.2	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB05-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.003
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	52.3 UG/KG	85 - 112	101
1,2-Dichloroethane-d4	52.3 UG/KG	77 - 122	86
4-Bromofluorobenzene	52.3 UG/KG	83 - 116	91
Dibromofluoromethane	52.3 UG/KG	83 - 113	90

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38 LCS ID :GVLCS38

LCSD ID :GVLCS38D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB05-(11.5-12.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.004
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 13:51

% MOISTURE	: 7.129	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5785.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.19 g
TIME ANALYZED	: 13:59		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.2	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.2	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.2	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.2	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.2	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.2	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.2	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.2	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.2	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.2	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.2	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.2	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.2	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.2	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.2	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1-Chlorohexane	5.2	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.2	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.2	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.2	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	18	UG/KG	
Acrylonitrile	5.2	UG/KG	ND	UG/KG	
Benzene	5.2	UG/KG	ND	UG/KG	
Bromobenzene	5.2	UG/KG	ND	UG/KG	
Bromochloromethane	5.2	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB05-(11.5-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.004
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.2	UG/KG	ND	UG/KG	
Bromoform	5.2	UG/KG	ND	UG/KG	
Bromomethane	5.2	UG/KG	ND	UG/KG	
Carbon disulfide	5.2	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.2	UG/KG	ND	UG/KG	
Chlorobenzene	5.2	UG/KG	ND	UG/KG	
Chloroethane	5.2	UG/KG	ND	UG/KG	
Chloroform	5.2	UG/KG	ND	UG/KG	
Chloromethane	5.2	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.2	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.2	UG/KG	ND	UG/KG	
Dibromochloromethane	5.2	UG/KG	ND	UG/KG	
Dibromomethane	5.2	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.2	UG/KG	ND	UG/KG	
Ethyl benzene	5.2	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.2	UG/KG	ND	UG/KG	
Iodomethane	5.2	UG/KG	ND	UG/KG	
Isopropylbenzene	5.2	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.2	UG/KG	ND	UG/KG	
Methylene chloride	5.2	UG/KG	ND	UG/KG	
n-Butylbenzene	5.2	UG/KG	ND	UG/KG	
n-Propylbenzene	5.2	UG/KG	ND	UG/KG	
Naphthalene	5.2	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.2	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.2	UG/KG	ND	UG/KG	
Styrene	5.2	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.2	UG/KG	ND	UG/KG	
Tetrachloroethene	5.2	UG/KG	ND	UG/KG	
Toluene	5.2	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.2	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.2	UG/KG	ND	UG/KG	
Trichloroethene	5.2	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.2	UG/KG	ND	UG/KG	
Vinyl Acetate	5.2	UG/KG	ND	UG/KG	
Vinyl chloride	5.2	UG/KG	ND	UG/KG	
Xylene (total)	5.2	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB05-(11.5-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.004
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	51.9 UG/KG	85 - 112	94
1,2-Dichloroethane-d4	51.9 UG/KG	77 - 122	100
4-Bromofluorobenzene	51.9 UG/KG	83 - 116	98
Dibromofluoromethane	51.9 UG/KG	83 - 113	93

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38 LCS ID :GVLCS38

LCSD ID :GVLCS38D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB05-(19.5-20.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.005
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 13:51

% MOISTURE	: 10.71	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5786.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.21 g
TIME ANALYZED	: 14:31		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.4	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.4	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.4	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.4	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.4	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.4	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.4	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.4	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.4	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.4	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.4	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.4	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.4	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.4	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.4	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1-Chlorohexane	5.4	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.4	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.4	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.4	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.4	UG/KG	ND	UG/KG	
Benzene	5.4	UG/KG	ND	UG/KG	
Bromobenzene	5.4	UG/KG	ND	UG/KG	
Bromochloromethane	5.4	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB05-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.005
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.4	UG/KG	ND	UG/KG	
Bromoform	5.4	UG/KG	ND	UG/KG	
Bromomethane	5.4	UG/KG	ND	UG/KG	
Carbon disulfide	5.4	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.4	UG/KG	ND	UG/KG	
Chlorobenzene	5.4	UG/KG	ND	UG/KG	
Chloroethane	5.4	UG/KG	ND	UG/KG	
Chloroform	5.4	UG/KG	ND	UG/KG	
Chloromethane	5.4	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.4	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.4	UG/KG	ND	UG/KG	
Dibromochloromethane	5.4	UG/KG	ND	UG/KG	
Dibromomethane	5.4	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.4	UG/KG	ND	UG/KG	
Ethyl benzene	5.4	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.4	UG/KG	ND	UG/KG	
Iodomethane	5.4	UG/KG	ND	UG/KG	
Isopropylbenzene	5.4	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.4	UG/KG	ND	UG/KG	
Methylene chloride	5.4	UG/KG	ND	UG/KG	
n-Butylbenzene	5.4	UG/KG	ND	UG/KG	
n-Propylbenzene	5.4	UG/KG	ND	UG/KG	
Naphthalene	5.4	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.4	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.4	UG/KG	ND	UG/KG	
Styrene	5.4	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.4	UG/KG	ND	UG/KG	
Tetrachloroethene	5.4	UG/KG	ND	UG/KG	
Toluene	5.4	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.4	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.4	UG/KG	ND	UG/KG	
Trichloroethene	5.4	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.4	UG/KG	ND	UG/KG	
Vinyl Acetate	5.4	UG/KG	ND	UG/KG	
Vinyl chloride	5.4	UG/KG	ND	UG/KG	
Xylene (total)	5.4	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB05-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.005
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	53.7 UG/KG	85 - 112	102
1,2-Dichloroethane-d4	53.7 UG/KG	77 - 122	92
4-Bromofluorobenzene	53.7 UG/KG	83 - 116	89
Dibromofluoromethane	53.7 UG/KG	83 - 113	93

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38 LCS ID :GVLCS38

LCSD ID :GVLCS38D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB05-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.006
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

% MOISTURE	: 22.79	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5787.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 6.74 g
TIME ANALYZED	: 15:02		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	4.8	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	4.8	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	4.8	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	4.8	UG/KG	ND	UG/KG	
1,1-Dichloroethane	4.8	UG/KG	ND	UG/KG	
1,1-Dichloroethene	4.8	UG/KG	ND	UG/KG	
1,1-Dichloropropene	4.8	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	4.8	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	4.8	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	4.8	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	4.8	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	4.8	UG/KG	ND	UG/KG	
1,2-Dibromoethane	4.8	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	4.8	UG/KG	ND	UG/KG	
1,2-Dichloroethane	4.8	UG/KG	ND	UG/KG	
1,2-Dichloropropane	4.8	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	4.8	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	4.8	UG/KG	ND	UG/KG	
1,3-Dichloropropane	4.8	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	4.8	UG/KG	ND	UG/KG	
1-Chlorohexane	4.8	UG/KG	ND	UG/KG	
2,2-Dichloropropane	4.8	UG/KG	ND	UG/KG	
2-Butanone	9.6	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	9.6	UG/KG	ND	UG/KG	
2-Chlorotoluene	4.8	UG/KG	ND	UG/KG	
2-Hexanone	9.6	UG/KG	ND	UG/KG	
4-Chlorotoluene	4.8	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	9.6	UG/KG	ND	UG/KG	
Acetone	9.6	UG/KG	ND	UG/KG	
Acrylonitrile	4.8	UG/KG	ND	UG/KG	
Benzene	4.8	UG/KG	ND	UG/KG	
Bromobenzene	4.8	UG/KG	ND	UG/KG	
Bromochloromethane	4.8	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB05-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.006
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	4.8	UG/KG	ND	UG/KG	
Bromoform	4.8	UG/KG	ND	UG/KG	
Bromomethane	4.8	UG/KG	ND	UG/KG	
Carbon disulfide	4.8	UG/KG	ND	UG/KG	
Carbon tetrachloride	4.8	UG/KG	ND	UG/KG	
Chlorobenzene	4.8	UG/KG	ND	UG/KG	
Chloroethane	4.8	UG/KG	ND	UG/KG	
Chloroform	4.8	UG/KG	ND	UG/KG	
Chloromethane	4.8	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	4.8	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	4.8	UG/KG	ND	UG/KG	
Dibromochloromethane	4.8	UG/KG	ND	UG/KG	
Dibromomethane	4.8	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	4.8	UG/KG	ND	UG/KG	
Ethyl benzene	4.8	UG/KG	ND	UG/KG	
Hexachlorobutadiene	4.8	UG/KG	ND	UG/KG	
Iodomethane	4.8	UG/KG	ND	UG/KG	
Isopropylbenzene	4.8	UG/KG	ND	UG/KG	
Methyl t-Butylether	4.8	UG/KG	ND	UG/KG	
Methylene chloride	4.8	UG/KG	ND	UG/KG	
n-Butylbenzene	4.8	UG/KG	ND	UG/KG	
n-Propylbenzene	4.8	UG/KG	ND	UG/KG	
Naphthalene	4.8	UG/KG	ND	UG/KG	
p-Isopropyltoluene	4.8	UG/KG	ND	UG/KG	
sec-Butylbenzene	4.8	UG/KG	ND	UG/KG	
Styrene	4.8	UG/KG	ND	UG/KG	
tert-Butylbenzene	4.8	UG/KG	ND	UG/KG	
Tetrachloroethene	4.8	UG/KG	ND	UG/KG	
Toluene	4.8	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	4.8	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	4.8	UG/KG	ND	UG/KG	
Trichloroethene	4.8	UG/KG	ND	UG/KG	
Trichlorofluoromethane	4.8	UG/KG	ND	UG/KG	
Vinyl Acetate	4.8	UG/KG	ND	UG/KG	
Vinyl chloride	4.8	UG/KG	ND	UG/KG	
Xylene (total)	4.8	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB05-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.006
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	48 UG/KG	85 - 112	103
1,2-Dichloroethane-d4	48 UG/KG	77 - 122	91
4-Bromofluorobenzene	48 UG/KG	83 - 116	86
Dibromofluoromethane	48 UG/KG	83 - 113	93

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38 LCS ID :GVLCS38

LCSD ID :GVLCS38D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB06-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.007
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

% MOISTURE	: 26.97	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5788.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.12 g
TIME ANALYZED	: 15:34		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	6.7	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	6.7	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	6.7	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	6.7	UG/KG	ND	UG/KG	
1,1-Dichloroethane	6.7	UG/KG	ND	UG/KG	
1,1-Dichloroethene	6.7	UG/KG	ND	UG/KG	
1,1-Dichloropropene	6.7	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	6.7	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	6.7	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	6.7	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	6.7	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	6.7	UG/KG	ND	UG/KG	
1,2-Dibromoethane	6.7	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	6.7	UG/KG	ND	UG/KG	
1,2-Dichloroethane	6.7	UG/KG	ND	UG/KG	
1,2-Dichloropropane	6.7	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	6.7	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	6.7	UG/KG	ND	UG/KG	
1,3-Dichloropropane	6.7	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	6.7	UG/KG	ND	UG/KG	
1-Chlorohexane	6.7	UG/KG	ND	UG/KG	
2,2-Dichloropropane	6.7	UG/KG	ND	UG/KG	
2-Butanone	13	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	13	UG/KG	ND	UG/KG	
2-Chlorotoluene	6.7	UG/KG	ND	UG/KG	
2-Hexanone	13	UG/KG	ND	UG/KG	
4-Chlorotoluene	6.7	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	13	UG/KG	ND	UG/KG	
Acetone	13	UG/KG	ND	UG/KG	
Acrylonitrile	6.7	UG/KG	ND	UG/KG	
Benzene	6.7	UG/KG	ND	UG/KG	
Bromobenzene	6.7	UG/KG	ND	UG/KG	
Bromochloromethane	6.7	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB06-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.007
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	6.7	UG/KG	ND	UG/KG	
Bromoform	6.7	UG/KG	ND	UG/KG	
Bromomethane	6.7	UG/KG	ND	UG/KG	
Carbon disulfide	6.7	UG/KG	ND	UG/KG	
Carbon tetrachloride	6.7	UG/KG	ND	UG/KG	
Chlorobenzene	6.7	UG/KG	ND	UG/KG	
Chloroethane	6.7	UG/KG	ND	UG/KG	
Chloroform	6.7	UG/KG	ND	UG/KG	
Chloromethane	6.7	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	6.7	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	6.7	UG/KG	ND	UG/KG	
Dibromochloromethane	6.7	UG/KG	ND	UG/KG	
Dibromomethane	6.7	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	6.7	UG/KG	ND	UG/KG	
Ethyl benzene	6.7	UG/KG	ND	UG/KG	
Hexachlorobutadiene	6.7	UG/KG	ND	UG/KG	
Iodomethane	6.7	UG/KG	ND	UG/KG	
Isopropylbenzene	6.7	UG/KG	ND	UG/KG	
Methyl t-Butylether	6.7	UG/KG	ND	UG/KG	
Methylene chloride	6.7	UG/KG	ND	UG/KG	
n-Butylbenzene	6.7	UG/KG	ND	UG/KG	
n-Propylbenzene	6.7	UG/KG	ND	UG/KG	
Naphthalene	6.7	UG/KG	ND	UG/KG	
p-Isopropyltoluene	6.7	UG/KG	ND	UG/KG	
sec-Butylbenzene	6.7	UG/KG	ND	UG/KG	
Styrene	6.7	UG/KG	ND	UG/KG	
tert-Butylbenzene	6.7	UG/KG	ND	UG/KG	
Tetrachloroethene	6.7	UG/KG	ND	UG/KG	
Toluene	6.7	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	6.7	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	6.7	UG/KG	ND	UG/KG	
Trichloroethene	6.7	UG/KG	ND	UG/KG	
Trichlorofluoromethane	6.7	UG/KG	ND	UG/KG	
Vinyl Acetate	6.7	UG/KG	ND	UG/KG	
Vinyl chloride	6.7	UG/KG	ND	UG/KG	
Xylene (total)	6.7	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	:	MEVATEC CORPORATION	CLIENT SAMPLE ID	:	HWSF-SB06-(1.5-2.0)
PROJECT NAME	:	HWSF EVAPORATION TANK	LAB SAMPLE ID	:	7426.007
PROJECT NUMBER	:	800A9	METHOD REFERENCE	:	SW846-8260B
DATE SAMPLED	:	12/18/01	DATE RECEIVED	:	12/20/2001
SAMPLE MATRIX	:	SOIL	PRINTED ON	:	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	66.9 UG/KG	85 - 112	104
1,2-Dichloroethane-d4	66.9 UG/KG	77 - 122	89
4-Bromofluorobenzene	66.9 UG/KG	83 - 116	83
Dibromofluoromethane	66.9 UG/KG	83 - 113	89

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38 LCS ID :GVLCS38

LCSD ID :GVLCS38D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB06-(3.0-4.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.008
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 13:51

% MOISTURE	: 20.28	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5789.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.28 g
TIME ANALYZED	: 16:05		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.9	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.9	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.9	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.9	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.9	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.9	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.9	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.9	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.9	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.9	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.9	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.9	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.9	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.9	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.9	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.9	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.9	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.9	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.9	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.9	UG/KG	ND	UG/KG	
1-Chlorohexane	5.9	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.9	UG/KG	ND	UG/KG	
2-Butanone	12	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	12	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.9	UG/KG	ND	UG/KG	
2-Hexanone	12	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.9	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	12	UG/KG	ND	UG/KG	
Acetone	12	UG/KG	ND	UG/KG	
Acrylonitrile	5.9	UG/KG	ND	UG/KG	
Benzene	5.9	UG/KG	ND	UG/KG	
Bromobenzene	5.9	UG/KG	ND	UG/KG	
Bromochloromethane	5.9	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB06-(3.0-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.008
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.9	UG/KG	ND	UG/KG	
Bromoform	5.9	UG/KG	ND	UG/KG	
Bromomethane	5.9	UG/KG	ND	UG/KG	
Carbon disulfide	5.9	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.9	UG/KG	ND	UG/KG	
Chlorobenzene	5.9	UG/KG	ND	UG/KG	
Chloroethane	5.9	UG/KG	ND	UG/KG	
Chloroform	5.9	UG/KG	ND	UG/KG	
Chloromethane	5.9	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.9	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.9	UG/KG	ND	UG/KG	
Dibromochloromethane	5.9	UG/KG	ND	UG/KG	
Dibromomethane	5.9	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.9	UG/KG	ND	UG/KG	
Ethyl benzene	5.9	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.9	UG/KG	ND	UG/KG	
Iodomethane	5.9	UG/KG	ND	UG/KG	
Isopropylbenzene	5.9	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.9	UG/KG	ND	UG/KG	
Methylene chloride	5.9	UG/KG	ND	UG/KG	
n-Butylbenzene	5.9	UG/KG	ND	UG/KG	
n-Propylbenzene	5.9	UG/KG	ND	UG/KG	
Naphthalene	5.9	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.9	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.9	UG/KG	ND	UG/KG	
Styrene	5.9	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.9	UG/KG	ND	UG/KG	
Tetrachloroethene	5.9	UG/KG	ND	UG/KG	
Toluene	5.9	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.9	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.9	UG/KG	ND	UG/KG	
Trichloroethene	5.9	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.9	UG/KG	ND	UG/KG	
Vinyl Acetate	5.9	UG/KG	ND	UG/KG	
Vinyl chloride	5.9	UG/KG	ND	UG/KG	
Xylene (total)	5.9	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB06-(3.0-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.008
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	59.4 UG/KG	85 - 112	101
1,2-Dichloroethane-d4	59.4 UG/KG	77 - 122	89
4-Bromofluorobenzene	59.4 UG/KG	83 - 116	83
Dibromofluoromethane	59.4 UG/KG	83 - 113	91

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38 LCS ID :GVLCS38

LCSD ID :GVLCS38D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB06-(5.5-6.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.009
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 13:51

% MOISTURE	: 8.642	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5790.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.06 g
TIME ANALYZED	: 16:36		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.4	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.4	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.4	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.4	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.4	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.4	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.4	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.4	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.4	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.4	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.4	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.4	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.4	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.4	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.4	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1-Chlorohexane	5.4	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.4	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.4	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.4	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.4	UG/KG	ND	UG/KG	
Benzene	5.4	UG/KG	ND	UG/KG	
Bromobenzene	5.4	UG/KG	ND	UG/KG	
Bromochloromethane	5.4	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB06-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.009
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.4	UG/KG	ND	UG/KG	
Bromoform	5.4	UG/KG	ND	UG/KG	
Bromomethane	5.4	UG/KG	ND	UG/KG	
Carbon disulfide	5.4	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.4	UG/KG	ND	UG/KG	
Chlorobenzene	5.4	UG/KG	ND	UG/KG	
Chloroethane	5.4	UG/KG	ND	UG/KG	
Chloroform	5.4	UG/KG	ND	UG/KG	
Chloromethane	5.4	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.4	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.4	UG/KG	ND	UG/KG	
Dibromochloromethane	5.4	UG/KG	ND	UG/KG	
Dibromomethane	5.4	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.4	UG/KG	ND	UG/KG	
Ethyl benzene	5.4	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.4	UG/KG	ND	UG/KG	
Iodomethane	5.4	UG/KG	ND	UG/KG	
Isopropylbenzene	5.4	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.4	UG/KG	ND	UG/KG	
Methylene chloride	5.4	UG/KG	ND	UG/KG	
n-Butylbenzene	5.4	UG/KG	ND	UG/KG	
n-Propylbenzene	5.4	UG/KG	ND	UG/KG	
Naphthalene	5.4	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.4	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.4	UG/KG	ND	UG/KG	
Styrene	5.4	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.4	UG/KG	ND	UG/KG	
Tetrachloroethene	5.4	UG/KG	ND	UG/KG	
Toluene	5.4	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.4	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.4	UG/KG	ND	UG/KG	
Trichloroethene	5.4	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.4	UG/KG	ND	UG/KG	
Vinyl Acetate	5.4	UG/KG	ND	UG/KG	
Vinyl chloride	5.4	UG/KG	ND	UG/KG	
Xylene (total)	5.4	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB06-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.009
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	54.1 UG/KG	85 - 112	100
1,2-Dichloroethane-d4	54.1 UG/KG	77 - 122	98
4-Bromofluorobenzene	54.1 UG/KG	83 - 116	81
Dibromofluoromethane	54.1 UG/KG	83 - 113	97

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38 LCS ID :GVLCS38

LCSD ID :GVLCS38D

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB06-(11.5-12.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.010
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 13:51

% MOISTURE	: 19.73	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5791.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.04 g
TIME ANALYZED	: 17:08		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	6.2	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	6.2	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	6.2	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	6.2	UG/KG	ND	UG/KG	
1,1-Dichloroethane	6.2	UG/KG	ND	UG/KG	
1,1-Dichloroethene	6.2	UG/KG	ND	UG/KG	
1,1-Dichloropropene	6.2	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	6.2	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	6.2	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	6.2	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	6.2	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	6.2	UG/KG	ND	UG/KG	
1,2-Dibromoethane	6.2	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	6.2	UG/KG	ND	UG/KG	
1,2-Dichloroethane	6.2	UG/KG	ND	UG/KG	
1,2-Dichloropropane	6.2	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	6.2	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	6.2	UG/KG	ND	UG/KG	
1,3-Dichloropropane	6.2	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	6.2	UG/KG	ND	UG/KG	
1-Chlorohexane	6.2	UG/KG	ND	UG/KG	
2,2-Dichloropropane	6.2	UG/KG	ND	UG/KG	
2-Butanone	12	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	12	UG/KG	ND	UG/KG	
2-Chlorotoluene	6.2	UG/KG	ND	UG/KG	
2-Hexanone	12	UG/KG	ND	UG/KG	
4-Chlorotoluene	6.2	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	12	UG/KG	ND	UG/KG	
Acetone	12	UG/KG	ND	UG/KG	
Acrylonitrile	6.2	UG/KG	ND	UG/KG	
Benzene	6.2	UG/KG	ND	UG/KG	
Bromobenzene	6.2	UG/KG	ND	UG/KG	
Bromochloromethane	6.2	UG/KG	ND	UG/KG	

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CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB06-(11.5-12.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.010
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	6.2	UG/KG	ND	UG/KG	
Bromoform	6.2	UG/KG	ND	UG/KG	
Bromomethane	6.2	UG/KG	ND	UG/KG	
Carbon disulfide	6.2	UG/KG	ND	UG/KG	
Carbon tetrachloride	6.2	UG/KG	ND	UG/KG	
Chlorobenzene	6.2	UG/KG	ND	UG/KG	
Chloroethane	6.2	UG/KG	ND	UG/KG	
Chloroform	6.2	UG/KG	ND	UG/KG	
Chloromethane	6.2	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	6.2	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	6.2	UG/KG	ND	UG/KG	
Dibromochloromethane	6.2	UG/KG	ND	UG/KG	
Dibromomethane	6.2	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	6.2	UG/KG	ND	UG/KG	
Ethyl benzene	6.2	UG/KG	ND	UG/KG	
Hexachlorobutadiene	6.2	UG/KG	ND	UG/KG	
Iodomethane	6.2	UG/KG	ND	UG/KG	
Isopropylbenzene	6.2	UG/KG	ND	UG/KG	
Methyl t-Butylether	6.2	UG/KG	ND	UG/KG	
Methylene chloride	6.2	UG/KG	ND	UG/KG	
n-Butylbenzene	6.2	UG/KG	ND	UG/KG	
n-Propylbenzene	6.2	UG/KG	ND	UG/KG	
Naphthalene	6.2	UG/KG	ND	UG/KG	
p-Isopropyltoluene	6.2	UG/KG	ND	UG/KG	
sec-Butylbenzene	6.2	UG/KG	ND	UG/KG	
Styrene	6.2	UG/KG	ND	UG/KG	
tert-Butylbenzene	6.2	UG/KG	ND	UG/KG	
Tetrachloroethene	6.2	UG/KG	ND	UG/KG	
Toluene	6.2	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	6.2	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	6.2	UG/KG	ND	UG/KG	
Trichloroethene	6.2	UG/KG	ND	UG/KG	
Trichlorofluoromethane	6.2	UG/KG	ND	UG/KG	
Vinyl Acetate	6.2	UG/KG	ND	UG/KG	
Vinyl chloride	6.2	UG/KG	ND	UG/KG	
Xylene (total)	6.2	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB06-(11.5-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.010
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	61.8 UG/KG	85 - 112	101
1,2-Dichloroethane-d4	61.8 UG/KG	77 - 122	84
4-Bromofluorobenzene	61.8 UG/KG	83 - 116	87
Dibromofluoromethane	61.8 UG/KG	83 - 113	89

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38 LCS ID :GVLCS38

LCSD ID :GVLCS38D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB06-(19.5-20.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.011
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 13:51

% MOISTURE	: 20.72	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5792.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.68 g
TIME ANALYZED	: 17:39		

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1,1,2-Tetrachloroethane	5.6 UG/KG	ND UG/KG	
1,1,1-Trichloroethane	5.6 UG/KG	ND UG/KG	
1,1,2,2-Tetrachloroethane	5.6 UG/KG	ND UG/KG	
1,1,2-Trichloroethane	5.6 UG/KG	ND UG/KG	
1,1-Dichloroethane	5.6 UG/KG	ND UG/KG	
1,1-Dichloroethene	5.6 UG/KG	ND UG/KG	
1,1-Dichloropropene	5.6 UG/KG	ND UG/KG	
1,2,3-Trichlorobenzene	5.6 UG/KG	ND UG/KG	
1,2,3-Trichloropropane	5.6 UG/KG	ND UG/KG	
1,2,4-Trichlorobenzene	5.6 UG/KG	ND UG/KG	
1,2,4-Trimethylbenzene	5.6 UG/KG	ND UG/KG	
1,2-Dibromo-3-chloropropane	5.6 UG/KG	ND UG/KG	
1,2-Dibromoethane	5.6 UG/KG	ND UG/KG	
1,2-Dichlorobenzene	5.6 UG/KG	ND UG/KG	
1,2-Dichloroethane	5.6 UG/KG	ND UG/KG	
1,2-Dichloropropane	5.6 UG/KG	ND UG/KG	
1,3,5-Trimethylbenzene	5.6 UG/KG	ND UG/KG	
1,3-Dichlorobenzene	5.6 UG/KG	ND UG/KG	
1,3-Dichloropropane	5.6 UG/KG	ND UG/KG	
1,4-Dichlorobenzene	5.6 UG/KG	ND UG/KG	
1-Chlorohexane	5.6 UG/KG	ND UG/KG	
2,2-Dichloropropane	5.6 UG/KG	ND UG/KG	
2-Butanone	11 UG/KG	ND UG/KG	
2-Chloroethyl vinyl ether	11 UG/KG	ND UG/KG	
2-Chlorotoluene	5.6 UG/KG	ND UG/KG	
2-Hexanone	11 UG/KG	ND UG/KG	
4-Chlorotoluene	5.6 UG/KG	ND UG/KG	
4-Methyl-2-pentanone	11 UG/KG	ND UG/KG	
Acetone	11 UG/KG	ND UG/KG	
Acrylonitrile	5.6 UG/KG	ND UG/KG	
Benzene	5.6 UG/KG	ND UG/KG	
Bromobenzene	5.6 UG/KG	ND UG/KG	
Bromochloromethane	5.6 UG/KG	ND UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB06-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.011
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.6	UG/KG	ND	UG/KG	
Bromoform	5.6	UG/KG	ND	UG/KG	
Bromomethane	5.6	UG/KG	ND	UG/KG	
Carbon disulfide	5.6	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.6	UG/KG	ND	UG/KG	
Chlorobenzene	5.6	UG/KG	ND	UG/KG	
Chloroethane	5.6	UG/KG	ND	UG/KG	
Chloroform	5.6	UG/KG	ND	UG/KG	
Chloromethane	5.6	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.6	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.6	UG/KG	ND	UG/KG	
Dibromochloromethane	5.6	UG/KG	ND	UG/KG	
Dibromomethane	5.6	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.6	UG/KG	ND	UG/KG	
Ethyl benzene	5.6	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.6	UG/KG	ND	UG/KG	
Iodomethane	5.6	UG/KG	ND	UG/KG	
Isopropylbenzene	5.6	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.6	UG/KG	ND	UG/KG	
Methylene chloride	5.6	UG/KG	ND	UG/KG	
n-Butylbenzene	5.6	UG/KG	ND	UG/KG	
n-Propylbenzene	5.6	UG/KG	ND	UG/KG	
Naphthalene	5.6	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.6	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.6	UG/KG	ND	UG/KG	
Styrene	5.6	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.6	UG/KG	ND	UG/KG	
Tetrachloroethene	5.6	UG/KG	ND	UG/KG	
Toluene	5.6	UG/KG	2.3	UG/KG	
trans-1,2-Dichloroethene	5.6	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.6	UG/KG	ND	UG/KG	
Trichloroethene	5.6	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.6	UG/KG	ND	UG/KG	
Vinyl Acetate	5.6	UG/KG	ND	UG/KG	
Vinyl chloride	5.6	UG/KG	ND	UG/KG	
Xylene (total)	5.6	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB06-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.011
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	55.6 UG/KG	85 - 112	111
1,2-Dichloroethane-d4	55.6 UG/KG	77 - 122	95
4-Bromofluorobenzene	55.6 UG/KG	83 - 116	76
Dibromofluoromethane	55.6 UG/KG	83 - 113	96

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38 LCS ID :GVLCS38

LCSD ID :GVLCS38D

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1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB06-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.012
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

% MOISTURE	: 19.03	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5793.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.71 g
TIME ANALYZED	: 18:10		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.4	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.4	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.4	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.4	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.4	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.4	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.4	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.4	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.4	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.4	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.4	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.4	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.4	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.4	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.4	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1-Chlorohexane	5.4	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.4	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.4	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.4	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.4	UG/KG	ND	UG/KG	
Benzene	5.4	UG/KG	ND	UG/KG	
Bromobenzene	5.4	UG/KG	ND	UG/KG	
Bromochloromethane	5.4	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB06-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.012
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
Bromodichloromethane	5.4 UG/KG	ND UG/KG	
Bromoform	5.4 UG/KG	ND UG/KG	
Bromomethane	5.4 UG/KG	ND UG/KG	
Carbon disulfide	5.4 UG/KG	ND UG/KG	
Carbon tetrachloride	5.4 UG/KG	ND UG/KG	
Chlorobenzene	5.4 UG/KG	ND UG/KG	
Chloroethane	5.4 UG/KG	ND UG/KG	
Chloroform	5.4 UG/KG	ND UG/KG	
Chloromethane	5.4 UG/KG	ND UG/KG	
cis-1,2-Dichloroethene	5.4 UG/KG	ND UG/KG	
cis-1,3-Dichloropropene	5.4 UG/KG	ND UG/KG	
Dibromochloromethane	5.4 UG/KG	ND UG/KG	
Dibromomethane	5.4 UG/KG	ND UG/KG	
Dichlorodifluoromethane	5.4 UG/KG	ND UG/KG	
Ethyl benzene	5.4 UG/KG	ND UG/KG	
Hexachlorobutadiene	5.4 UG/KG	ND UG/KG	
Iodomethane	5.4 UG/KG	ND UG/KG	
Isopropylbenzene	5.4 UG/KG	ND UG/KG	
Methyl t-Butylether	5.4 UG/KG	ND UG/KG	
Methylene chloride	5.4 UG/KG	ND UG/KG	
n-Butylbenzene	5.4 UG/KG	ND UG/KG	
n-Propylbenzene	5.4 UG/KG	ND UG/KG	
Naphthalene	5.4 UG/KG	ND UG/KG	
p-Isopropyltoluene	5.4 UG/KG	ND UG/KG	
sec-Butylbenzene	5.4 UG/KG	ND UG/KG	
Styrene	5.4 UG/KG	ND UG/KG	
tert-Butylbenzene	5.4 UG/KG	ND UG/KG	
Tetrachloroethene	5.4 UG/KG	ND UG/KG	
Toluene	5.4 UG/KG	ND UG/KG	
trans-1,2-Dichloroethene	5.4 UG/KG	ND UG/KG	
trans-1,3-Dichloropropene	5.4 UG/KG	ND UG/KG	
Trichloroethene	5.4 UG/KG	ND UG/KG	
Trichlorofluoromethane	5.4 UG/KG	ND UG/KG	
Vinyl Acetate	5.4 UG/KG	ND UG/KG	
Vinyl chloride	5.4 UG/KG	ND UG/KG	
Xylene (total)	5.4 UG/KG	ND UG/KG	

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB06-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.012
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	54.1 UG/KG	85 - 112	105
1,2-Dichloroethane-d4	54.1 UG/KG	77 - 122	84
4-Bromofluorobenzene	54.1 UG/KG	83 - 116	87
Dibromofluoromethane	54.1 UG/KG	83 - 113	89

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38 LCS ID :GVLCS38

LCSD ID :GVLCS38D

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-TB-02
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.013
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: WATER	PRINTED ON	: 1/9/2002 13:51

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 1/1/2002	DILUTION	: 1
INSTRUMENT FILE	: F9132.D	INSTRUMENT ID	: F-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 16:38

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1,1,2-Tetrachloroethane	1.0 UG/L	ND UG/L	
1,1,1-Trichloroethane	1.0 UG/L	ND UG/L	
1,1,2,2-Tetrachloroethane	1.0 UG/L	ND UG/L	
1,1,2-Trichloroethane	1.0 UG/L	ND UG/L	
1,1-Dichloroethane	1.0 UG/L	ND UG/L	
1,1-Dichloroethene	1.0 UG/L	ND UG/L	
1,1-Dichloropropene	1.0 UG/L	ND UG/L	
1,2,3-Trichlorobenzene	1.0 UG/L	ND UG/L	
1,2,3-Trichloropropane	1.0 UG/L	ND UG/L	
1,2,4-Trichlorobenzene	1.0 UG/L	ND UG/L	
1,2,4-Trimethylbenzene	1.0 UG/L	ND UG/L	
1,2-Dibromo-3-chloropropane	1.0 UG/L	ND UG/L	
1,2-Dibromoethane	1.0 UG/L	ND UG/L	
1,2-Dichlorobenzene	1.0 UG/L	ND UG/L	
1,2-Dichloroethane	1.0 UG/L	ND UG/L	
1,2-Dichloropropane	1.0 UG/L	ND UG/L	
1,3,5-Trimethylbenzene	1.0 UG/L	ND UG/L	
1,3-Dichlorobenzene	1.0 UG/L	ND UG/L	
1,3-Dichloropropane	1.0 UG/L	ND UG/L	
1,4-Dichlorobenzene	1.0 UG/L	ND UG/L	
1-Chlorohexane	1.0 UG/L	ND UG/L	
2,2-Dichloropropane	1.0 UG/L	ND UG/L	
2-Butanone	5.0 UG/L	ND UG/L	
2-Chloroethyl vinyl ether	2.0 UG/L	ND UG/L	
2-Chlorotoluene	1.0 UG/L	ND UG/L	
2-Hexanone	5.0 UG/L	ND UG/L	
4-Chlorotoluene	1.0 UG/L	ND UG/L	
4-Methyl-2-pentanone	5.0 UG/L	ND UG/L	
Acetone	5.0 UG/L	ND UG/L	
Acrolein	5.0 UG/L	ND UG/L	
Acrylonitrile	1.0 UG/L	ND UG/L	
Benzene	1.0 UG/L	ND UG/L	
Bromobenzene	1.0 UG/L	ND UG/L	
Bromochloromethane	1.0 UG/L	ND UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TB-02
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.013
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	WATER	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	ND	UG/L	
Bromoform	1.0	UG/L	ND	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	ND	UG/L	
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	ND	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	ND	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TB-02
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.013
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	WATER	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	53
Dibromofluoromethane	10 UG/L	56 - 153	79
Toluene-d8	10 UG/L	68 - 124	57
1,2-Dichloroethane-d4	10 UG/L	64 - 130	75

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID : FVBLK54 PREP BLANK ID : FVBLK54 LCS ID : FVLCS54

LCSD ID : FVLCS54D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-TB-02RA1
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.013RA1
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: WATER	PRINTED ON	: 1/9/2002 13:51

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 1/1/2002	DILUTION	: 1
INSTRUMENT FILE	: F9136.D	INSTRUMENT ID	: F-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 18:38

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1,1,2-Tetrachloroethane	1.0 UG/L	ND UG/L	
1,1,1-Trichloroethane	1.0 UG/L	ND UG/L	
1,1,2,2-Tetrachloroethane	1.0 UG/L	ND UG/L	
1,1,2-Trichloroethane	1.0 UG/L	ND UG/L	
1,1-Dichloroethane	1.0 UG/L	ND UG/L	
1,1-Dichloroethene	1.0 UG/L	ND UG/L	
1,1-Dichloropropene	1.0 UG/L	ND UG/L	
1,2,3-Trichlorobenzene	1.0 UG/L	ND UG/L	
1,2,3-Trichloropropane	1.0 UG/L	ND UG/L	
1,2,4-Trichlorobenzene	1.0 UG/L	ND UG/L	
1,2,4-Trimethylbenzene	1.0 UG/L	ND UG/L	
1,2-Dibromo-3-chloropropane	1.0 UG/L	ND UG/L	
1,2-Dibromoethane	1.0 UG/L	ND UG/L	
1,2-Dichlorobenzene	1.0 UG/L	ND UG/L	
1,2-Dichloroethane	1.0 UG/L	ND UG/L	
1,2-Dichloropropane	1.0 UG/L	ND UG/L	
1,3,5-Trimethylbenzene	1.0 UG/L	ND UG/L	
1,3-Dichlorobenzene	1.0 UG/L	ND UG/L	
1,3-Dichloropropane	1.0 UG/L	ND UG/L	
1,4-Dichlorobenzene	1.0 UG/L	ND UG/L	
1-Chlorohexane	1.0 UG/L	ND UG/L	
2,2-Dichloropropane	1.0 UG/L	ND UG/L	
2-Butanone	5.0 UG/L	ND UG/L	
2-Chloroethyl vinyl ether	2.0 UG/L	ND UG/L	
2-Chlorotoluene	1.0 UG/L	ND UG/L	
2-Hexanone	5.0 UG/L	ND UG/L	
4-Chlorotoluene	1.0 UG/L	ND UG/L	
4-Methyl-2-pentanone	5.0 UG/L	ND UG/L	
Acetone	5.0 UG/L	ND UG/L	
Acrolein	5.0 UG/L	ND UG/L	
Acrylonitrile	1.0 UG/L	ND UG/L	
Benzene	1.0 UG/L	ND UG/L	
Bromobenzene	1.0 UG/L	ND UG/L	
Bromochloromethane	1.0 UG/L	ND UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TB-02RA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.013RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	WATER	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
Bromodichloromethane	1.0 UG/L	ND UG/L	
Bromoform	1.0 UG/L	ND UG/L	
Bromomethane	2.0 UG/L	ND UG/L	
Carbon disulfide	1.0 UG/L	ND UG/L	
Carbon tetrachloride	1.0 UG/L	ND UG/L	
Chlorobenzene	1.0 UG/L	ND UG/L	
Chloroethane	2.0 UG/L	ND UG/L	
Chloroform	1.0 UG/L	ND UG/L	
Chloromethane	2.0 UG/L	ND UG/L	
cis-1,2-Dichloroethene	1.0 UG/L	ND UG/L	
cis-1,3-Dichloropropene	1.0 UG/L	ND UG/L	
Dibromochloromethane	1.0 UG/L	ND UG/L	
Dibromomethane	1.0 UG/L	ND UG/L	
Dichlorodifluoromethane	2.0 UG/L	ND UG/L	
Ethyl benzene	1.0 UG/L	ND UG/L	
Hexachlorobutadiene	1.0 UG/L	ND UG/L	
Iodomethane	1.0 UG/L	ND UG/L	
Isopropylbenzene	1.0 UG/L	ND UG/L	
Methyl t-Butylether	1.0 UG/L	ND UG/L	
Methylene chloride	2.0 UG/L	ND UG/L	
n-Butylbenzene	1.0 UG/L	ND UG/L	
n-Propylbenzene	1.0 UG/L	ND UG/L	
Naphthalene	1.0 UG/L	ND UG/L	
p-Isopropyltoluene	1.0 UG/L	ND UG/L	
sec-Butylbenzene	1.0 UG/L	ND UG/L	
Styrene	1.0 UG/L	ND UG/L	
tert-Butylbenzene	1.0 UG/L	ND UG/L	
Tetrachloroethene	1.0 UG/L	ND UG/L	
Toluene	1.0 UG/L	ND UG/L	
trans-1,2-Dichloroethene	1.0 UG/L	ND UG/L	
trans-1,3-Dichloropropene	1.0 UG/L	ND UG/L	
Trichloroethene	1.0 UG/L	ND UG/L	
Trichlorofluoromethane	1.0 UG/L	ND UG/L	
Vinyl Acetate	5.0 UG/L	ND UG/L	
Vinyl chloride	1.0 UG/L	ND UG/L	
Xylene (total)	1.0 UG/L	ND UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TB-02RA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.013RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	WATER	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	101
Dibromofluoromethane	10 UG/L	56 - 153	164
Toluene-d8	10 UG/L	68 - 124	126
1,2-Dichloroethane-d4	10 UG/L	64 - 130	153

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID : FVBLK54 PREP BLANK ID : FVBLK54 LCS ID : FVLCS54

LCSD ID : FVLCS54D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB06-EB
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.014
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: WATER	PRINTED ON	: 1/9/2002 13:51

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 1/1/2002	DILUTION	: 1
INSTRUMENT FILE	: F9133.D	INSTRUMENT ID	: F-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 17:08

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,1-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1,2,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,2-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethene	1.0	UG/L	ND	UG/L	
1,1-Dichloropropene	1.0	UG/L	ND	UG/L	
1,2,3-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,3-Trichloropropane	1.0	UG/L	ND	UG/L	
1,2,4-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,4-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,2-Dibromo-3-chloropropane	1.0	UG/L	ND	UG/L	
1,2-Dibromoethane	1.0	UG/L	ND	UG/L	
1,2-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,2-Dichloroethane	1.0	UG/L	ND	UG/L	
1,2-Dichloropropane	1.0	UG/L	ND	UG/L	
1,3,5-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,3-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,3-Dichloropropane	1.0	UG/L	ND	UG/L	
1,4-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1-Chlorohexane	1.0	UG/L	ND	UG/L	
2,2-Dichloropropane	1.0	UG/L	ND	UG/L	
2-Butanone	5.0	UG/L	ND	UG/L	
2-Chloroethyl vinyl ether	2.0	UG/L	ND	UG/L	
2-Chlorotoluene	1.0	UG/L	ND	UG/L	
2-Hexanone	5.0	UG/L	ND	UG/L	
4-Chlorotoluene	1.0	UG/L	ND	UG/L	
4-Methyl-2-pentanone	5.0	UG/L	ND	UG/L	
Acetone	5.0	UG/L	ND	UG/L	
Acrolein	5.0	UG/L	ND	UG/L	
Acrylonitrile	1.0	UG/L	ND	UG/L	
Benzene	1.0	UG/L	ND	UG/L	
Bromobenzene	1.0	UG/L	ND	UG/L	
Bromochloromethane	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB06-EB
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.014
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	WATER	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	1.6	UG/L	
Bromoform	1.0	UG/L	ND	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	2.7	UG/L	
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	1.3	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	ND	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	1.3	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB06-EB
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.014
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	WATER	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	88
Dibromofluoromethane	10 UG/L	56 - 153	141
Toluene-d8	10 UG/L	68 - 124	96
1,2-Dichloroethane-d4	10 UG/L	64 - 130	130

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID : FVBLK54 PREP BLANK ID : FVBLK54 LCS ID : FVLCS54

LCSD ID : FVLCS54D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-B06-TAP WATER
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.015
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: WATER	PRINTED ON	: 1/9/2002 13:51

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 1/1/2002	DILUTION	: 1
INSTRUMENT FILE	: F9134.D	INSTRUMENT ID	: F-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 17:38

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,1-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1,2,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,2-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethene	1.0	UG/L	ND	UG/L	
1,1-Dichloropropene	1.0	UG/L	ND	UG/L	
1,2,3-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,3-Trichloropropane	1.0	UG/L	ND	UG/L	
1,2,4-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,4-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,2-Dibromo-3-chloropropane	1.0	UG/L	ND	UG/L	
1,2-Dibromoethane	1.0	UG/L	ND	UG/L	
1,2-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,2-Dichloroethane	1.0	UG/L	ND	UG/L	
1,2-Dichloropropane	1.0	UG/L	ND	UG/L	
1,3,5-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,3-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,3-Dichloropropane	1.0	UG/L	ND	UG/L	
1,4-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1-Chlorohexane	1.0	UG/L	ND	UG/L	
2,2-Dichloropropane	1.0	UG/L	ND	UG/L	
2-Butanone	5.0	UG/L	ND	UG/L	
2-Chloroethyl vinyl ether	2.0	UG/L	ND	UG/L	
2-Chlorotoluene	1.0	UG/L	ND	UG/L	
2-Hexanone	5.0	UG/L	ND	UG/L	
4-Chlorotoluene	1.0	UG/L	ND	UG/L	
4-Methyl-2-pentanone	5.0	UG/L	ND	UG/L	
Acetone	5.0	UG/L	ND	UG/L	
Acrolein	5.0	UG/L	ND	UG/L	
Acrylonitrile	1.0	UG/L	ND	UG/L	
Benzene	1.0	UG/L	ND	UG/L	
Bromobenzene	1.0	UG/L	ND	UG/L	
Bromochloromethane	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-B06-TAP WATER
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.015
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	WATER	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	0.81	UG/L	J
Bromoform	1.0	UG/L	ND	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	ND	UG/L	
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	1.6	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	ND	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-B06-TAP WATER
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.015
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	WATER	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	76
Dibromofluoromethane	10 UG/L	56 - 153	124
Toluene-d8	10 UG/L	68 - 124	14
1,2-Dichloroethane-d4	10 UG/L	64 - 130	111

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID : FVBLK54 PREP BLANK ID : FVBLK54 LCS ID : FVLCS54

LCSD ID : FVLCS54D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-B06-TAP WATERRA1
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.015RA1
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: WATER	PRINTED ON	: 1/9/2002 13:51

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 1/1/2002	DILUTION	: 1
INSTRUMENT FILE	: F9137.D	INSTRUMENT ID	: F-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 19:08

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1,1,2-Tetrachloroethane	1.0 UG/L	ND UG/L	
1,1,1-Trichloroethane	1.0 UG/L	ND UG/L	
1,1,2,2-Tetrachloroethane	1.0 UG/L	ND UG/L	
1,1,2-Trichloroethane	1.0 UG/L	ND UG/L	
1,1-Dichloroethane	1.0 UG/L	ND UG/L	
1,1-Dichloroethene	1.0 UG/L	ND UG/L	
1,1-Dichloropropene	1.0 UG/L	ND UG/L	
1,2,3-Trichlorobenzene	1.0 UG/L	ND UG/L	
1,2,3-Trichloropropane	1.0 UG/L	ND UG/L	
1,2,4-Trichlorobenzene	1.0 UG/L	ND UG/L	
1,2,4-Trimethylbenzene	1.0 UG/L	ND UG/L	
1,2-Dibromo-3-chloropropane	1.0 UG/L	ND UG/L	
1,2-Dibromoethane	1.0 UG/L	ND UG/L	
1,2-Dichlorobenzene	1.0 UG/L	ND UG/L	
1,2-Dichloroethane	1.0 UG/L	ND UG/L	
1,2-Dichloropropane	1.0 UG/L	ND UG/L	
1,3,5-Trimethylbenzene	1.0 UG/L	ND UG/L	
1,3-Dichlorobenzene	1.0 UG/L	ND UG/L	
1,3-Dichloropropane	1.0 UG/L	ND UG/L	
1,4-Dichlorobenzene	1.0 UG/L	ND UG/L	
1-Chlorohexane	1.0 UG/L	ND UG/L	
2,2-Dichloropropane	1.0 UG/L	ND UG/L	
2-Butanone	5.0 UG/L	ND UG/L	
2-Chloroethyl vinyl ether	2.0 UG/L	ND UG/L	
2-Chlorotoluene	1.0 UG/L	ND UG/L	
2-Hexanone	5.0 UG/L	ND UG/L	
4-Chlorotoluene	1.0 UG/L	ND UG/L	
4-Methyl-2-pentanone	5.0 UG/L	ND UG/L	
Acetone	5.0 UG/L	ND UG/L	
Acrolein	5.0 UG/L	ND UG/L	
Acrylonitrile	1.0 UG/L	ND UG/L	
Benzene	1.0 UG/L	ND UG/L	
Bromobenzene	1.0 UG/L	ND UG/L	
Bromochloromethane	1.0 UG/L	ND UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-B06-TAP WATERRA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.015RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	WATER	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	0.58	UG/L	J
Bromoform	1.0	UG/L	ND	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	ND	UG/L	
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	ND	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	ND	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-B06-TAP WATERRA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.015RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	WATER	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	79
Dibromofluoromethane	10 UG/L	56 - 153	125
Toluene-d8	10 UG/L	68 - 124	20
1,2-Dichloroethane-d4	10 UG/L	64 - 130	113

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID : FVBLK54 PREP BLANK ID : FVBLK54 LCS ID : FVLCS54

LCSD ID : FVLCS54D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB07-(1.5-2.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.016
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 13:51

% MOISTURE	: 14.05	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5794.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.07 g
TIME ANALYZED	: 18:42		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.7	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.7	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.7	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.7	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.7	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.7	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.7	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.7	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.7	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.7	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.7	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.7	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.7	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.7	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.7	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.7	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.7	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.7	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.7	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.7	UG/KG	ND	UG/KG	
1-Chlorohexane	5.7	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.7	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.7	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.7	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.7	UG/KG	ND	UG/KG	
Benzene	5.7	UG/KG	ND	UG/KG	
Bromobenzene	5.7	UG/KG	ND	UG/KG	
Bromochloromethane	5.7	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB07-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.016
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.7	UG/KG	ND	UG/KG	
Bromoform	5.7	UG/KG	ND	UG/KG	
Bromomethane	5.7	UG/KG	ND	UG/KG	
Carbon disulfide	5.7	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.7	UG/KG	ND	UG/KG	
Chlorobenzene	5.7	UG/KG	ND	UG/KG	
Chloroethane	5.7	UG/KG	ND	UG/KG	
Chloroform	5.7	UG/KG	ND	UG/KG	
Chloromethane	5.7	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.7	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.7	UG/KG	ND	UG/KG	
Dibromochloromethane	5.7	UG/KG	ND	UG/KG	
Dibromomethane	5.7	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.7	UG/KG	ND	UG/KG	
Ethyl benzene	5.7	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.7	UG/KG	ND	UG/KG	
Iodomethane	5.7	UG/KG	ND	UG/KG	
Isopropylbenzene	5.7	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.7	UG/KG	ND	UG/KG	
Methylene chloride	5.7	UG/KG	ND	UG/KG	
n-Butylbenzene	5.7	UG/KG	ND	UG/KG	
n-Propylbenzene	5.7	UG/KG	ND	UG/KG	
Naphthalene	5.7	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.7	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.7	UG/KG	ND	UG/KG	
Styrene	5.7	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.7	UG/KG	ND	UG/KG	
Tetrachloroethene	5.7	UG/KG	ND	UG/KG	
Toluene	5.7	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.7	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.7	UG/KG	ND	UG/KG	
Trichloroethene	5.7	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.7	UG/KG	ND	UG/KG	
Vinyl Acetate	5.7	UG/KG	ND	UG/KG	
Vinyl chloride	5.7	UG/KG	ND	UG/KG	
Xylene (total)	5.7	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB07-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.016
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	57.4 UG/KG	85 - 112	100
1,2-Dichloroethane-d4	57.4 UG/KG	77 - 122	91
4-Bromofluorobenzene	57.4 UG/KG	83 - 116	90
Dibromofluoromethane	57.4 UG/KG	83 - 113	90

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38 LCS ID :GVLCS38

LCSD ID :GVLCS38D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB07-(3.5-4.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.017
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 13:51

% MOISTURE	: 13.75	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5795.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.03 g
TIME ANALYZED	: 19:13		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.8	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.8	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.8	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.8	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.8	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.8	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.8	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.8	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.8	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.8	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.8	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.8	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.8	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.8	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.8	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.8	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.8	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.8	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.8	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.8	UG/KG	ND	UG/KG	
1-Chlorohexane	5.8	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.8	UG/KG	ND	UG/KG	
2-Butanone	12	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	12	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.8	UG/KG	ND	UG/KG	
2-Hexanone	12	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.8	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	12	UG/KG	ND	UG/KG	
Acetone	12	UG/KG	ND	UG/KG	
Acrylonitrile	5.8	UG/KG	ND	UG/KG	
Benzene	5.8	UG/KG	ND	UG/KG	
Bromobenzene	5.8	UG/KG	ND	UG/KG	
Bromochloromethane	5.8	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB07-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.017
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.8	UG/KG	ND	UG/KG	
Bromoform	5.8	UG/KG	ND	UG/KG	
Bromomethane	5.8	UG/KG	ND	UG/KG	
Carbon disulfide	5.8	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.8	UG/KG	ND	UG/KG	
Chlorobenzene	5.8	UG/KG	ND	UG/KG	
Chloroethane	5.8	UG/KG	ND	UG/KG	
Chloroform	5.8	UG/KG	ND	UG/KG	
Chloromethane	5.8	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.8	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.8	UG/KG	ND	UG/KG	
Dibromochloromethane	5.8	UG/KG	ND	UG/KG	
Dibromomethane	5.8	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.8	UG/KG	ND	UG/KG	
Ethyl benzene	5.8	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.8	UG/KG	ND	UG/KG	
Iodomethane	5.8	UG/KG	ND	UG/KG	
Isopropylbenzene	5.8	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.8	UG/KG	ND	UG/KG	
Methylene chloride	5.8	UG/KG	ND	UG/KG	
n-Butylbenzene	5.8	UG/KG	ND	UG/KG	
n-Propylbenzene	5.8	UG/KG	ND	UG/KG	
Naphthalene	5.8	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.8	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.8	UG/KG	ND	UG/KG	
Styrene	5.8	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.8	UG/KG	ND	UG/KG	
Tetrachloroethene	5.8	UG/KG	ND	UG/KG	
Toluene	5.8	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.8	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.8	UG/KG	ND	UG/KG	
Trichloroethene	5.8	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.8	UG/KG	ND	UG/KG	
Vinyl Acetate	5.8	UG/KG	ND	UG/KG	
Vinyl chloride	5.8	UG/KG	ND	UG/KG	
Xylene (total)	5.8	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB07-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.017
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	57.6 UG/KG	85 - 112	103
1,2-Dichloroethane-d4	57.6 UG/KG	77 - 122	88
4-Bromofluorobenzene	57.6 UG/KG	83 - 116	83
Dibromofluoromethane	57.6 UG/KG	83 - 113	92

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38 LCS ID :GVLCS38

LCSD ID :GVLCS38D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB07-(5.5-6.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.018
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 13:51

% MOISTURE	: 6.326	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5796.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.10 g
TIME ANALYZED	: 19:44		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.2	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.2	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.2	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.2	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.2	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.2	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.2	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.2	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.2	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.2	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.2	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.2	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.2	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.2	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.2	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1-Chlorohexane	5.2	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.2	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.2	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.2	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.2	UG/KG	ND	UG/KG	
Benzene	5.2	UG/KG	ND	UG/KG	
Bromobenzene	5.2	UG/KG	ND	UG/KG	
Bromochloromethane	5.2	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB07-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.018
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
Bromodichloromethane	5.2 UG/KG	ND UG/KG	
Bromoform	5.2 UG/KG	ND UG/KG	
Bromomethane	5.2 UG/KG	ND UG/KG	
Carbon disulfide	5.2 UG/KG	ND UG/KG	
Carbon tetrachloride	5.2 UG/KG	ND UG/KG	
Chlorobenzene	5.2 UG/KG	ND UG/KG	
Chloroethane	5.2 UG/KG	ND UG/KG	
Chloroform	5.2 UG/KG	ND UG/KG	
Chloromethane	5.2 UG/KG	ND UG/KG	
cis-1,2-Dichloroethene	5.2 UG/KG	ND UG/KG	
cis-1,3-Dichloropropene	5.2 UG/KG	ND UG/KG	
Dibromochloromethane	5.2 UG/KG	ND UG/KG	
Dibromomethane	5.2 UG/KG	ND UG/KG	
Dichlorodifluoromethane	5.2 UG/KG	ND UG/KG	
Ethyl benzene	5.2 UG/KG	ND UG/KG	
Hexachlorobutadiene	5.2 UG/KG	ND UG/KG	
Iodomethane	5.2 UG/KG	ND UG/KG	
Isopropylbenzene	5.2 UG/KG	ND UG/KG	
Methyl t-Butylether	5.2 UG/KG	ND UG/KG	
Methylene chloride	5.2 UG/KG	ND UG/KG	
n-Butylbenzene	5.2 UG/KG	ND UG/KG	
n-Propylbenzene	5.2 UG/KG	ND UG/KG	
Naphthalene	5.2 UG/KG	ND UG/KG	
p-Isopropyltoluene	5.2 UG/KG	ND UG/KG	
sec-Butylbenzene	5.2 UG/KG	ND UG/KG	
Styrene	5.2 UG/KG	ND UG/KG	
tert-Butylbenzene	5.2 UG/KG	ND UG/KG	
Tetrachloroethene	5.2 UG/KG	ND UG/KG	
Toluene	5.2 UG/KG	ND UG/KG	
trans-1,2-Dichloroethene	5.2 UG/KG	ND UG/KG	
trans-1,3-Dichloropropene	5.2 UG/KG	ND UG/KG	
Trichloroethene	5.2 UG/KG	ND UG/KG	
Trichlorofluoromethane	5.2 UG/KG	ND UG/KG	
Vinyl Acetate	5.2 UG/KG	ND UG/KG	
Vinyl chloride	5.2 UG/KG	ND UG/KG	
Xylene (total)	5.2 UG/KG	ND UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB07-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.018
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	52.3 UG/KG	85 - 112	104
1,2-Dichloroethane-d4	52.3 UG/KG	77 - 122	95
4-Bromofluorobenzene	52.3 UG/KG	83 - 116	81
Dibromofluoromethane	52.3 UG/KG	83 - 113	96

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38 LCS ID :GVLCS38

LCSD ID :GVLCS38D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB07-(11.5-12.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.019
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 13:51

% MOISTURE	: 19.57	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5797.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.42 g
TIME ANALYZED	: 20:15		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.7	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.7	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.7	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.7	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.7	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.7	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.7	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.7	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.7	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.7	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.7	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.7	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.7	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.7	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.7	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.7	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.7	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.7	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.7	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.7	UG/KG	ND	UG/KG	
1-Chlorohexane	5.7	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.7	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.7	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.7	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.7	UG/KG	ND	UG/KG	
Benzene	5.7	UG/KG	ND	UG/KG	
Bromobenzene	5.7	UG/KG	ND	UG/KG	
Bromochloromethane	5.7	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB07-(11.5-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.019
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.7	UG/KG	ND	UG/KG	
Bromoform	5.7	UG/KG	ND	UG/KG	
Bromomethane	5.7	UG/KG	ND	UG/KG	
Carbon disulfide	5.7	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.7	UG/KG	ND	UG/KG	
Chlorobenzene	5.7	UG/KG	ND	UG/KG	
Chloroethane	5.7	UG/KG	ND	UG/KG	
Chloroform	5.7	UG/KG	ND	UG/KG	
Chloromethane	5.7	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.7	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.7	UG/KG	ND	UG/KG	
Dibromochloromethane	5.7	UG/KG	ND	UG/KG	
Dibromomethane	5.7	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.7	UG/KG	ND	UG/KG	
Ethyl benzene	5.7	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.7	UG/KG	ND	UG/KG	
Iodomethane	5.7	UG/KG	ND	UG/KG	
Isopropylbenzene	5.7	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.7	UG/KG	ND	UG/KG	
Methylene chloride	5.7	UG/KG	ND	UG/KG	
n-Butylbenzene	5.7	UG/KG	ND	UG/KG	
n-Propylbenzene	5.7	UG/KG	ND	UG/KG	
Naphthalene	5.7	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.7	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.7	UG/KG	ND	UG/KG	
Styrene	5.7	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.7	UG/KG	ND	UG/KG	
Tetrachloroethene	5.7	UG/KG	ND	UG/KG	
Toluene	5.7	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.7	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.7	UG/KG	ND	UG/KG	
Trichloroethene	5.7	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.7	UG/KG	ND	UG/KG	
Vinyl Acetate	5.7	UG/KG	ND	UG/KG	
Vinyl chloride	5.7	UG/KG	ND	UG/KG	
Xylene (total)	5.7	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB07-(11.5-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.019
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	57.3 UG/KG	85 - 112	103
1,2-Dichloroethane-d4	57.3 UG/KG	77 - 122	80
4-Bromofluorobenzene	57.3 UG/KG	83 - 116	79
Dibromofluoromethane	57.3 UG/KG	83 - 113	87

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38 LCS ID :GVLCS38
LCSD ID :GVLCS38D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB07-(19.5-20.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.020
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 13:51

% MOISTURE	: 7.294	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5798.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.06 g
TIME ANALYZED	: 20:46		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.3	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.3	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.3	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1-Chlorohexane	5.3	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.3	UG/KG	ND	UG/KG	
Benzene	5.3	UG/KG	ND	UG/KG	
Bromobenzene	5.3	UG/KG	ND	UG/KG	
Bromochloromethane	5.3	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB07-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.020
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.3	UG/KG	ND	UG/KG	
Bromoform	5.3	UG/KG	ND	UG/KG	
Bromomethane	5.3	UG/KG	ND	UG/KG	
Carbon disulfide	5.3	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.3	UG/KG	ND	UG/KG	
Chlorobenzene	5.3	UG/KG	ND	UG/KG	
Chloroethane	5.3	UG/KG	ND	UG/KG	
Chloroform	5.3	UG/KG	ND	UG/KG	
Chloromethane	5.3	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Dibromochloromethane	5.3	UG/KG	ND	UG/KG	
Dibromomethane	5.3	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.3	UG/KG	ND	UG/KG	
Ethyl benzene	5.3	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.3	UG/KG	ND	UG/KG	
Iodomethane	5.3	UG/KG	ND	UG/KG	
Isopropylbenzene	5.3	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.3	UG/KG	ND	UG/KG	
Methylene chloride	5.3	UG/KG	ND	UG/KG	
n-Butylbenzene	5.3	UG/KG	ND	UG/KG	
n-Propylbenzene	5.3	UG/KG	ND	UG/KG	
Naphthalene	5.3	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.3	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Styrene	5.3	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Tetrachloroethene	5.3	UG/KG	ND	UG/KG	
Toluene	5.3	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Trichloroethene	5.3	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.3	UG/KG	ND	UG/KG	
Vinyl Acetate	5.3	UG/KG	ND	UG/KG	
Vinyl chloride	5.3	UG/KG	ND	UG/KG	
Xylene (total)	5.3	UG/KG	ND	UG/KG	

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB07-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.020
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	53.3 UG/KG	85 - 112	96
1,2-Dichloroethane-d4	53.3 UG/KG	77 - 122	124
4-Bromofluorobenzene	53.3 UG/KG	83 - 116	78
Dibromofluoromethane	53.3 UG/KG	83 - 113	115

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38 LCS ID :GVLCS38

LCSD ID :GVLCS38D

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB07-(19.5-20.0)RA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.020RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

% MOISTURE	: 7.294	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 12/31/2001
DILUTION	: 1	INSTRUMENT FILE	: G5810.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.08 g
TIME ANALYZED	: 12:44		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.3	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.3	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.3	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1-Chlorohexane	5.3	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.3	UG/KG	ND	UG/KG	
Benzene	5.3	UG/KG	ND	UG/KG	
Bromobenzene	5.3	UG/KG	ND	UG/KG	
Bromochloromethane	5.3	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB07-(19.5-20.0)RA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.020RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.3	UG/KG	ND	UG/KG	
Bromoform	5.3	UG/KG	ND	UG/KG	
Bromomethane	5.3	UG/KG	ND	UG/KG	
Carbon disulfide	5.3	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.3	UG/KG	ND	UG/KG	
Chlorobenzene	5.3	UG/KG	ND	UG/KG	
Chloroethane	5.3	UG/KG	ND	UG/KG	
Chloroform	5.3	UG/KG	ND	UG/KG	
Chloromethane	5.3	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Dibromochloromethane	5.3	UG/KG	ND	UG/KG	
Dibromomethane	5.3	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.3	UG/KG	ND	UG/KG	
Ethyl benzene	5.3	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.3	UG/KG	ND	UG/KG	
Iodomethane	5.3	UG/KG	ND	UG/KG	
Isopropylbenzene	5.3	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.3	UG/KG	ND	UG/KG	
Methylene chloride	5.3	UG/KG	ND	UG/KG	
n-Butylbenzene	5.3	UG/KG	ND	UG/KG	
n-Propylbenzene	5.3	UG/KG	ND	UG/KG	
Naphthalene	5.3	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.3	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Styrene	5.3	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Tetrachloroethene	5.3	UG/KG	ND	UG/KG	
Toluene	5.3	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Trichloroethene	5.3	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.3	UG/KG	ND	UG/KG	
Vinyl Acetate	5.3	UG/KG	ND	UG/KG	
Vinyl chloride	5.3	UG/KG	ND	UG/KG	
Xylene (total)	5.3	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB07-(19.5-20.0)RA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.020RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	53.1 UG/KG	85 - 112	87
1,2-Dichloroethane-d4	53.1 UG/KG	77 - 122	94
4-Bromofluorobenzene	53.1 UG/KG	83 - 116	70
Dibromofluoromethane	53.1 UG/KG	83 - 113	92

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK40 PREP BLANK ID :GVBLK40 LCS ID :GVLCS40

LCSD ID :GVLCS40D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB07-(24.0-25.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.021
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 13:51

% MOISTURE	: 1.661	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 12/31/2001
DILUTION	: 1	INSTRUMENT FILE	: G5811.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.03 g
TIME ANALYZED	: 13:15		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.0	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.0	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.0	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1-Chlorohexane	5.0	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.0	UG/KG	ND	UG/KG	
Benzene	5.0	UG/KG	ND	UG/KG	
Bromobenzene	5.0	UG/KG	ND	UG/KG	
Bromochloromethane	5.0	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB07-(24.0-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.021
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.0	UG/KG	8.6	UG/KG	
Bromoform	5.0	UG/KG	11	UG/KG	
Bromomethane	5.0	UG/KG	ND	UG/KG	
Carbon disulfide	5.0	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.0	UG/KG	ND	UG/KG	
Chlorobenzene	5.0	UG/KG	ND	UG/KG	
Chloroethane	5.0	UG/KG	ND	UG/KG	
Chloroform	5.0	UG/KG	7.7	UG/KG	
Chloromethane	5.0	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Dibromochloromethane	5.0	UG/KG	9.6	UG/KG	
Dibromomethane	5.0	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.0	UG/KG	ND	UG/KG	
Ethyl benzene	5.0	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.0	UG/KG	ND	UG/KG	
Iodomethane	5.0	UG/KG	ND	UG/KG	
Isopropylbenzene	5.0	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.0	UG/KG	ND	UG/KG	
Methylene chloride	5.0	UG/KG	ND	UG/KG	
n-Butylbenzene	5.0	UG/KG	ND	UG/KG	
n-Propylbenzene	5.0	UG/KG	ND	UG/KG	
Naphthalene	5.0	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.0	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Styrene	5.0	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Tetrachloroethene	5.0	UG/KG	ND	UG/KG	
Toluene	5.0	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Trichloroethene	5.0	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.0	UG/KG	ND	UG/KG	
Vinyl Acetate	5.0	UG/KG	ND	UG/KG	
Vinyl chloride	5.0	UG/KG	ND	UG/KG	
Xylene (total)	5.0	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB07-(24.0-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.021
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50.6 UG/KG	85 - 112	101
1,2-Dichloroethane-d4	50.6 UG/KG	77 - 122	85
4-Bromofluorobenzene	50.6 UG/KG	83 - 116	78
Dibromofluoromethane	50.6 UG/KG	83 - 113	88

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK40 PREP BLANK ID :GVBLK40 LCS ID :GVLCS40

LCSD ID :GVLCS40D

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB08-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.022
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

% MOISTURE	: 8.777	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 12/31/2001
DILUTION	: 1	INSTRUMENT FILE	: G5812.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.11 g
TIME ANALYZED	: 14:00		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.4	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.4	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.4	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.4	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.4	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.4	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.4	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.4	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.4	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.4	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.4	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.4	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.4	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.4	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.4	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1-Chlorohexane	5.4	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.4	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.4	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.4	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	24	UG/KG	
Acrylonitrile	5.4	UG/KG	ND	UG/KG	
Benzene	5.4	UG/KG	ND	UG/KG	
Bromobenzene	5.4	UG/KG	ND	UG/KG	
Bromochloromethane	5.4	UG/KG	ND	UG/KG	

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB08-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.022
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.4	UG/KG	18	UG/KG	
Bromoform	5.4	UG/KG	2.3	UG/KG	J
Bromomethane	5.4	UG/KG	ND	UG/KG	
Carbon disulfide	5.4	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.4	UG/KG	ND	UG/KG	
Chlorobenzene	5.4	UG/KG	ND	UG/KG	
Chloroethane	5.4	UG/KG	ND	UG/KG	
Chloroform	5.4	UG/KG	32	UG/KG	
Chloromethane	5.4	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.4	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.4	UG/KG	ND	UG/KG	
Dibromochloromethane	5.4	UG/KG	6.8	UG/KG	
Dibromomethane	5.4	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.4	UG/KG	ND	UG/KG	
Ethyl benzene	5.4	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.4	UG/KG	ND	UG/KG	
Iodomethane	5.4	UG/KG	ND	UG/KG	
Isopropylbenzene	5.4	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.4	UG/KG	ND	UG/KG	
Methylene chloride	5.4	UG/KG	ND	UG/KG	
n-Butylbenzene	5.4	UG/KG	ND	UG/KG	
n-Propylbenzene	5.4	UG/KG	ND	UG/KG	
Naphthalene	5.4	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.4	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.4	UG/KG	ND	UG/KG	
Styrene	5.4	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.4	UG/KG	ND	UG/KG	
Tetrachloroethene	5.4	UG/KG	ND	UG/KG	
Toluene	5.4	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.4	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.4	UG/KG	ND	UG/KG	
Trichloroethene	5.4	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.4	UG/KG	ND	UG/KG	
Vinyl Acetate	5.4	UG/KG	ND	UG/KG	
Vinyl chloride	5.4	UG/KG	ND	UG/KG	
Xylene (total)	5.4	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB08-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.022
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	53.6 UG/KG	85-- 112	101
1,2-Dichloroethane-d4	53.6 UG/KG	77 - 122	119
4-Bromofluorobenzene	53.6 UG/KG	83 - 116	88
Dibromofluoromethane	53.6 UG/KG	83 - 113	106

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK40 PREP BLANK ID :GVBLK40 LCS ID :GVLCS40

LCSD ID :GVLCS40D

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB08-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.023
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

% MOISTURE	: 24.39	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 12/31/2001
DILUTION	: 1	INSTRUMENT FILE	: G5813.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.15 g
TIME ANALYZED	: 14:30		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	6.4	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	6.4	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	6.4	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	6.4	UG/KG	ND	UG/KG	
1,1-Dichloroethane	6.4	UG/KG	ND	UG/KG	
1,1-Dichloroethene	6.4	UG/KG	ND	UG/KG	
1,1-Dichloropropene	6.4	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	6.4	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	6.4	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	6.4	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	6.4	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	6.4	UG/KG	ND	UG/KG	
1,2-Dibromoethane	6.4	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	6.4	UG/KG	ND	UG/KG	
1,2-Dichloroethane	6.4	UG/KG	ND	UG/KG	
1,2-Dichloropropane	6.4	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	6.4	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	6.4	UG/KG	ND	UG/KG	
1,3-Dichloropropane	6.4	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	6.4	UG/KG	ND	UG/KG	
1-Chlorohexane	6.4	UG/KG	ND	UG/KG	
2,2-Dichloropropane	6.4	UG/KG	ND	UG/KG	
2-Butanone	13	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	13	UG/KG	ND	UG/KG	
2-Chlorotoluene	6.4	UG/KG	ND	UG/KG	
2-Hexanone	13	UG/KG	ND	UG/KG	
4-Chlorotoluene	6.4	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	13	UG/KG	ND	UG/KG	
Acetone	13	UG/KG	ND	UG/KG	
Acrylonitrile	6.4	UG/KG	ND	UG/KG	
Benzene	6.4	UG/KG	ND	UG/KG	
Bromobenzene	6.4	UG/KG	ND	UG/KG	
Bromochloromethane	6.4	UG/KG	ND	UG/KG	

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1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB08-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.023
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	6.4	UG/KG	18	UG/KG	
Bromoform	6.4	UG/KG	3.1	UG/KG	J
Bromomethane	6.4	UG/KG	ND	UG/KG	
Carbon disulfide	6.4	UG/KG	ND	UG/KG	
Carbon tetrachloride	6.4	UG/KG	ND	UG/KG	
Chlorobenzene	6.4	UG/KG	ND	UG/KG	
Chloroethane	6.4	UG/KG	ND	UG/KG	
Chloroform	6.4	UG/KG	33	UG/KG	
Chloromethane	6.4	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	6.4	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	6.4	UG/KG	ND	UG/KG	
Dibromochloromethane	6.4	UG/KG	7.7	UG/KG	
Dibromomethane	6.4	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	6.4	UG/KG	ND	UG/KG	
Ethyl benzene	6.4	UG/KG	ND	UG/KG	
Hexachlorobutadiene	6.4	UG/KG	ND	UG/KG	
Iodomethane	6.4	UG/KG	ND	UG/KG	
Isopropylbenzene	6.4	UG/KG	ND	UG/KG	
Methyl t-Butylether	6.4	UG/KG	ND	UG/KG	
Methylene chloride	6.4	UG/KG	ND	UG/KG	
n-Butylbenzene	6.4	UG/KG	ND	UG/KG	
n-Propylbenzene	6.4	UG/KG	ND	UG/KG	
Naphthalene	6.4	UG/KG	ND	UG/KG	
p-Isopropyltoluene	6.4	UG/KG	ND	UG/KG	
sec-Butylbenzene	6.4	UG/KG	ND	UG/KG	
Styrene	6.4	UG/KG	ND	UG/KG	
tert-Butylbenzene	6.4	UG/KG	ND	UG/KG	
Tetrachloroethene	6.4	UG/KG	ND	UG/KG	
Toluene	6.4	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	6.4	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	6.4	UG/KG	ND	UG/KG	
Trichloroethene	6.4	UG/KG	ND	UG/KG	
Trichlorofluoromethane	6.4	UG/KG	ND	UG/KG	
Vinyl Acetate	6.4	UG/KG	ND	UG/KG	
Vinyl chloride	6.4	UG/KG	ND	UG/KG	
Xylene (total)	6.4	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB08-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.023
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	64.2 UG/KG	85 - 112	91
1,2-Dichloroethane-d4	64.2 UG/KG	77 - 122	122
4-Bromofluorobenzene	64.2 UG/KG	83 - 116	81
Dibromofluoromethane	64.2 UG/KG	83 - 113	115

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK40 PREP BLANK ID :GVBLK40 LCS ID :GVLCS40

LCSD ID :GVLCS40D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB08-(5.5-6.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.024
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 13:51

% MOISTURE	: 6.984	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 12/31/2001
DILUTION	: 1	INSTRUMENT FILE	: G5818.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.16 g
TIME ANALYZED	: 17:11		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.2	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.2	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.2	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.2	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.2	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.2	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.2	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.2	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.2	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.2	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.2	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.2	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.2	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.2	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.2	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1-Chlorohexane	5.2	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.2	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.2	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.2	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.2	UG/KG	ND	UG/KG	
Benzene	5.2	UG/KG	ND	UG/KG	
Bromobenzene	5.2	UG/KG	ND	UG/KG	
Bromochloromethane	5.2	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB08-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.024
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.2	UG/KG	ND	UG/KG	
Bromoform	5.2	UG/KG	ND	UG/KG	
Bromomethane	5.2	UG/KG	ND	UG/KG	
Carbon disulfide	5.2	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.2	UG/KG	ND	UG/KG	
Chlorobenzene	5.2	UG/KG	ND	UG/KG	
Chloroethane	5.2	UG/KG	ND	UG/KG	
Chloroform	5.2	UG/KG	ND	UG/KG	
Chloromethane	5.2	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.2	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.2	UG/KG	ND	UG/KG	
Dibromochloromethane	5.2	UG/KG	ND	UG/KG	
Dibromomethane	5.2	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.2	UG/KG	ND	UG/KG	
Ethyl benzene	5.2	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.2	UG/KG	ND	UG/KG	
Iodomethane	5.2	UG/KG	ND	UG/KG	
Isopropylbenzene	5.2	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.2	UG/KG	ND	UG/KG	
Methylene chloride	5.2	UG/KG	ND	UG/KG	
n-Butylbenzene	5.2	UG/KG	ND	UG/KG	
n-Propylbenzene	5.2	UG/KG	ND	UG/KG	
Naphthalene	5.2	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.2	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.2	UG/KG	ND	UG/KG	
Styrene	5.2	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.2	UG/KG	ND	UG/KG	
Tetrachloroethene	5.2	UG/KG	ND	UG/KG	
Toluene	5.2	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.2	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.2	UG/KG	ND	UG/KG	
Trichloroethene	5.2	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.2	UG/KG	ND	UG/KG	
Vinyl Acetate	5.2	UG/KG	ND	UG/KG	
Vinyl chloride	5.2	UG/KG	ND	UG/KG	
Xylene (total)	5.2	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB08-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.024
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	52.1 UG/KG	85 - 112	96
1,2-Dichloroethane-d4	52.1 UG/KG	77 - 122	98
4-Bromofluorobenzene	52.1 UG/KG	83 - 116	78
Dibromofluoromethane	52.1 UG/KG	83 - 113	97

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK40 PREP BLANK ID :GVBLK40 LCS ID :GVLCS40

LCSD ID :GVLCS40D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB08-(11.5-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.025
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

% MOISTURE	: 20.02	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 12/31/2001
DILUTION	: 1	INSTRUMENT FILE	: G5819.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.10 g
TIME ANALYZED	: 17:42		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	6.1	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	6.1	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	6.1	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	6.1	UG/KG	ND	UG/KG	
1,1-Dichloroethane	6.1	UG/KG	ND	UG/KG	
1,1-Dichloroethene	6.1	UG/KG	ND	UG/KG	
1,1-Dichloropropene	6.1	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	6.1	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	6.1	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	6.1	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	6.1	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	6.1	UG/KG	ND	UG/KG	
1,2-Dibromoethane	6.1	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	6.1	UG/KG	ND	UG/KG	
1,2-Dichloroethane	6.1	UG/KG	ND	UG/KG	
1,2-Dichloropropane	6.1	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	6.1	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	6.1	UG/KG	ND	UG/KG	
1,3-Dichloropropane	6.1	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	6.1	UG/KG	ND	UG/KG	
1-Chlorohexane	6.1	UG/KG	ND	UG/KG	
2,2-Dichloropropane	6.1	UG/KG	ND	UG/KG	
2-Butanone	12	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	12	UG/KG	ND	UG/KG	
2-Chlorotoluene	6.1	UG/KG	ND	UG/KG	
2-Hexanone	12	UG/KG	ND	UG/KG	
4-Chlorotoluene	6.1	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	12	UG/KG	ND	UG/KG	
Acetone	12	UG/KG	ND	UG/KG	
Acrylonitrile	6.1	UG/KG	ND	UG/KG	
Benzene	6.1	UG/KG	ND	UG/KG	
Bromobenzene	6.1	UG/KG	ND	UG/KG	
Bromochloromethane	6.1	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB08-(11.5-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.025
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	6.1	UG/KG	ND	UG/KG	
Bromoform	6.1	UG/KG	ND	UG/KG	
Bromomethane	6.1	UG/KG	ND	UG/KG	
Carbon disulfide	6.1	UG/KG	ND	UG/KG	
Carbon tetrachloride	6.1	UG/KG	ND	UG/KG	
Chlorobenzene	6.1	UG/KG	ND	UG/KG	
Chloroethane	6.1	UG/KG	ND	UG/KG	
Chloroform	6.1	UG/KG	ND	UG/KG	
Chloromethane	6.1	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	6.1	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	6.1	UG/KG	ND	UG/KG	
Dibromochloromethane	6.1	UG/KG	ND	UG/KG	
Dibromomethane	6.1	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	6.1	UG/KG	ND	UG/KG	
Ethyl benzene	6.1	UG/KG	ND	UG/KG	
Hexachlorobutadiene	6.1	UG/KG	ND	UG/KG	
Iodomethane	6.1	UG/KG	ND	UG/KG	
Isopropylbenzene	6.1	UG/KG	ND	UG/KG	
Methyl t-Butylether	6.1	UG/KG	ND	UG/KG	
Methylene chloride	6.1	UG/KG	ND	UG/KG	
n-Butylbenzene	6.1	UG/KG	ND	UG/KG	
n-Propylbenzene	6.1	UG/KG	ND	UG/KG	
Naphthalene	6.1	UG/KG	ND	UG/KG	
p-Isopropyltoluene	6.1	UG/KG	ND	UG/KG	
sec-Butylbenzene	6.1	UG/KG	ND	UG/KG	
Styrene	6.1	UG/KG	ND	UG/KG	
tert-Butylbenzene	6.1	UG/KG	ND	UG/KG	
Tetrachloroethene	6.1	UG/KG	ND	UG/KG	
Toluene	6.1	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	6.1	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	6.1	UG/KG	ND	UG/KG	
Trichloroethene	6.1	UG/KG	ND	UG/KG	
Trichlorofluoromethane	6.1	UG/KG	ND	UG/KG	
Vinyl Acetate	6.1	UG/KG	ND	UG/KG	
Vinyl chloride	6.1	UG/KG	ND	UG/KG	
Xylene (total)	6.1	UG/KG	ND	UG/KG	

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB08-(11.5-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.025
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	61.3 UG/KG	85 - 112	93
1,2-Dichloroethane-d4	61.3 UG/KG	77 - 122	95
4-Bromofluorobenzene	61.3 UG/KG	83 - 116	75
Dibromofluoromethane	61.3 UG/KG	83 - 113	94

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK40 PREP BLANK ID :GVBLK40 LCS ID :GVLCS40

LCSD ID :GVLCS40D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB08-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.026
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

% MOISTURE	: 21.63	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 12/31/2001
DILUTION	: 1	INSTRUMENT FILE	: G5820.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 6 g
TIME ANALYZED	: 18:12		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.3	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.3	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.3	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1-Chlorohexane	5.3	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.3	UG/KG	ND	UG/KG	
Benzene	5.3	UG/KG	ND	UG/KG	
Bromobenzene	5.3	UG/KG	ND	UG/KG	
Bromochloromethane	5.3	UG/KG	ND	UG/KG	

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1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB08-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.026
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.3	UG/KG	ND	UG/KG	
Bromoform	5.3	UG/KG	ND	UG/KG	
Bromomethane	5.3	UG/KG	ND	UG/KG	
Carbon disulfide	5.3	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.3	UG/KG	ND	UG/KG	
Chlorobenzene	5.3	UG/KG	ND	UG/KG	
Chloroethane	5.3	UG/KG	ND	UG/KG	
Chloroform	5.3	UG/KG	ND	UG/KG	
Chloromethane	5.3	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Dibromochloromethane	5.3	UG/KG	ND	UG/KG	
Dibromomethane	5.3	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.3	UG/KG	ND	UG/KG	
Ethyl benzene	5.3	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.3	UG/KG	ND	UG/KG	
Iodomethane	5.3	UG/KG	ND	UG/KG	
Isopropylbenzene	5.3	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.3	UG/KG	ND	UG/KG	
Methylene chloride	5.3	UG/KG	ND	UG/KG	
n-Butylbenzene	5.3	UG/KG	ND	UG/KG	
n-Propylbenzene	5.3	UG/KG	ND	UG/KG	
Naphthalene	5.3	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.3	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Styrene	5.3	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Tetrachloroethene	5.3	UG/KG	ND	UG/KG	
Toluene	5.3	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Trichloroethene	5.3	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.3	UG/KG	ND	UG/KG	
Vinyl Acetate	5.3	UG/KG	ND	UG/KG	
Vinyl chloride	5.3	UG/KG	ND	UG/KG	
Xylene (total)	5.3	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB08-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.026
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	53.2 UG/KG	85 - 112	107
1,2-Dichloroethane-d4	53.2 UG/KG	77 - 122	99
4-Bromofluorobenzene	53.2 UG/KG	83 - 116	85
Dibromofluoromethane	53.2 UG/KG	83 - 113	100

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK40 PREP BLANK ID :GVBLK40 LCS ID :GVLCS40

LCSD ID :GVLCS40D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB08-(24.5-25.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.027
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 13:51

% MOISTURE	: 2.855	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 12/31/2001
DILUTION	: 1	INSTRUMENT FILE	: G5817.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.11 g
TIME ANALYZED	: 16:37		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.0	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.0	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.0	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1-Chlorohexane	5.0	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.0	UG/KG	ND	UG/KG	
Benzene	5.0	UG/KG	ND	UG/KG	
Bromobenzene	5.0	UG/KG	ND	UG/KG	
Bromochloromethane	5.0	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB08-(24.5-25.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.027
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.0	UG/KG	12	UG/KG	
Bromoform	5.0	UG/KG	14	UG/KG	
Bromomethane	5.0	UG/KG	ND	UG/KG	
Carbon disulfide	5.0	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.0	UG/KG	ND	UG/KG	
Chlorobenzene	5.0	UG/KG	ND	UG/KG	
Chloroethane	5.0	UG/KG	ND	UG/KG	
Chloroform	5.0	UG/KG	10	UG/KG	
Chloromethane	5.0	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Dibromochloromethane	5.0	UG/KG	15	UG/KG	
Dibromomethane	5.0	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.0	UG/KG	ND	UG/KG	
Ethyl benzene	5.0	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.0	UG/KG	ND	UG/KG	
Iodomethane	5.0	UG/KG	ND	UG/KG	
Isopropylbenzene	5.0	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.0	UG/KG	ND	UG/KG	
Methylene chloride	5.0	UG/KG	ND	UG/KG	
n-Butylbenzene	5.0	UG/KG	ND	UG/KG	
n-Propylbenzene	5.0	UG/KG	ND	UG/KG	
Naphthalene	5.0	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.0	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Styrene	5.0	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Tetrachloroethene	5.0	UG/KG	ND	UG/KG	
Toluene	5.0	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Trichloroethene	5.0	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.0	UG/KG	ND	UG/KG	
Vinyl Acetate	5.0	UG/KG	ND	UG/KG	
Vinyl chloride	5.0	UG/KG	ND	UG/KG	
Xylene (total)	5.0	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB08-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.027
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50.4 UG/KG	85 - 112	88
1,2-Dichloroethane-d4	50.4 UG/KG	77 - 122	130
4-Bromofluorobenzene	50.4 UG/KG	83 - 116	75
Dibromofluoromethane	50.4 UG/KG	83 - 113	117

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK40 PREP BLANK ID :GVBLK40 LCS ID :GVLCS40

LCSD ID :GVLCS40D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB08-(24.5-25.0)RA1
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7426.027RA1
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/18/01	DATE RECEIVED	: 12/20/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/9/2002 13:51

% MOISTURE	: 2.855	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 12/31/2001
DILUTION	: 1	INSTRUMENT FILE	: G5821.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.15 g
TIME ANALYZED	: 18:43		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.0	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.0	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.0	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1-Chlorohexane	5.0	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
2-Butanone	10.	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10.	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
2-Hexanone	10.	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10.	UG/KG	ND	UG/KG	
Acetone	10.	UG/KG	ND	UG/KG	
Acrylonitrile	5.0	UG/KG	ND	UG/KG	
Benzene	5.0	UG/KG	ND	UG/KG	
Bromobenzene	5.0	UG/KG	ND	UG/KG	
Bromochloromethane	5.0	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB08-(24.5-25.0)RA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.027RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.0	UG/KG	7.6	UG/KG	
Bromoform	5.0	UG/KG	ND	UG/KG	
Bromomethane	5.0	UG/KG	ND	UG/KG	
Carbon disulfide	5.0	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.0	UG/KG	ND	UG/KG	
Chlorobenzene	5.0	UG/KG	ND	UG/KG	
Chloroethane	5.0	UG/KG	ND	UG/KG	
Chloroform	5.0	UG/KG	21	UG/KG	
Chloromethane	5.0	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Dibromochloromethane	5.0	UG/KG	ND	UG/KG	
Dibromomethane	5.0	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.0	UG/KG	ND	UG/KG	
Ethyl benzene	5.0	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.0	UG/KG	ND	UG/KG	
Iodomethane	5.0	UG/KG	ND	UG/KG	
Isopropylbenzene	5.0	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.0	UG/KG	ND	UG/KG	
Methylene chloride	5.0	UG/KG	ND	UG/KG	
n-Butylbenzene	5.0	UG/KG	ND	UG/KG	
n-Propylbenzene	5.0	UG/KG	ND	UG/KG	
Naphthalene	5.0	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.0	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Styrene	5.0	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Tetrachloroethene	5.0	UG/KG	ND	UG/KG	
Toluene	5.0	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Trichloroethene	5.0	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.0	UG/KG	ND	UG/KG	
Vinyl Acetate	5.0	UG/KG	ND	UG/KG	
Vinyl chloride	5.0	UG/KG	ND	UG/KG	
Xylene (total)	5.0	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB08-(24.5-25.0)RA1
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7426.027RA1
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/18/01	DATE RECEIVED :	12/20/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	92
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	133
4-Bromofluorobenzene	50 UG/KG	83 - 116	71
Dibromofluoromethane	50 UG/KG	83 - 113	119

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK40 PREP BLANK ID :GVBLK40 LCS ID :GVLCS40

LCSD ID :GVLCS40D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	FVBLK54
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/9/2002 13:51

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 1/1/2002	DILUTION	: 1
INSTRUMENT FILE	: F9131.D	INSTRUMENT ID	: F-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 16:03

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,1-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1,2,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,2-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethene	1.0	UG/L	ND	UG/L	
1,1-Dichloropropene	1.0	UG/L	ND	UG/L	
1,2,3-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,3-Trichloropropane	1.0	UG/L	ND	UG/L	
1,2,4-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,4-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,2-Dibromo-3-chloropropane	1.0	UG/L	ND	UG/L	
1,2-Dibromoethane	1.0	UG/L	ND	UG/L	
1,2-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,2-Dichloroethane	1.0	UG/L	ND	UG/L	
1,2-Dichloropropane	1.0	UG/L	ND	UG/L	
1,3,5-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,3-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,3-Dichloropropane	1.0	UG/L	ND	UG/L	
1,4-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1-Chlorohexane	1.0	UG/L	ND	UG/L	
2,2-Dichloropropane	1.0	UG/L	ND	UG/L	
2-Butanone	5.0	UG/L	ND	UG/L	
2-Chloroethyl vinyl ether	2.0	UG/L	ND	UG/L	
2-Chlorotoluene	1.0	UG/L	ND	UG/L	
2-Hexanone	5.0	UG/L	ND	UG/L	
4-Chlorotoluene	1.0	UG/L	ND	UG/L	
4-Methyl-2-pentanone	5.0	UG/L	ND	UG/L	
Acetone	5.0	UG/L	ND	UG/L	
Acrolein	5.0	UG/L	ND	UG/L	
Acrylonitrile	1.0	UG/L	ND	UG/L	
Benzene	1.0	UG/L	ND	UG/L	
Bromobenzene	1.0	UG/L	ND	UG/L	
Bromochloromethane	1.0	UG/L	ND	UG/L	

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	FVBLK54
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	ND	UG/L	
Bromoform	1.0	UG/L	ND	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	ND	UG/L	
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	ND	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	ND	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	FVBLK54
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	88
Dibromofluoromethane	10 UG/L	56 - 153	124
Toluene-d8	10 UG/L	68 - 124	106
1,2-Dichloroethane-d4	10 UG/L	64 - 130	114

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID : FVBLK54 PREP BLANK ID : FVBLK54

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK38
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 13:51

% MOISTURE :		ANALYST	: ESP
CONTAINER ID :	UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5776.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5 g
TIME ANALYZED	: 9:18		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.0	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.0	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.0	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1-Chlorohexane	5.0	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.0	UG/KG	ND	UG/KG	
Benzene	5.0	UG/KG	ND	UG/KG	
Bromobenzene	5.0	UG/KG	ND	UG/KG	
Bromochloromethane	5.0	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK38
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.0	UG/KG	ND	UG/KG	
Bromoform	5.0	UG/KG	ND	UG/KG	
Bromomethane	5.0	UG/KG	ND	UG/KG	
Carbon disulfide	5.0	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.0	UG/KG	ND	UG/KG	
Chlorobenzene	5.0	UG/KG	ND	UG/KG	
Chloroethane	5.0	UG/KG	ND	UG/KG	
Chloroform	5.0	UG/KG	ND	UG/KG	
Chloromethane	5.0	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Dibromochloromethane	5.0	UG/KG	ND	UG/KG	
Dibromomethane	5.0	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.0	UG/KG	ND	UG/KG	
Ethyl benzene	5.0	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.0	UG/KG	ND	UG/KG	
Iodomethane	5.0	UG/KG	ND	UG/KG	
Isopropylbenzene	5.0	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.0	UG/KG	ND	UG/KG	
Methylene chloride	5.0	UG/KG	ND	UG/KG	
n-Butylbenzene	5.0	UG/KG	ND	UG/KG	
n-Propylbenzene	5.0	UG/KG	ND	UG/KG	
Naphthalene	5.0	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.0	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Styrene	5.0	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Tetrachloroethene	5.0	UG/KG	ND	UG/KG	
Toluene	5.0	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Trichloroethene	5.0	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.0	UG/KG	ND	UG/KG	
Vinyl Acetate	5.0	UG/KG	ND	UG/KG	
Vinyl chloride	5.0	UG/KG	ND	UG/KG	
Xylene (total)	5.0	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK38
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	100
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	92
4-Bromofluorobenzene	50 UG/KG	83 - 116	108
Dibromofluoromethane	50 UG/KG	83 - 113	93

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	:	CLIENT SAMPLE ID	: Prep Blank
PROJECT NAME	:	LAB SAMPLE ID	: GVBLK40
PROJECT NUMBER	:	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	:	DATE RECEIVED	:
SAMPLE MATRIX	: SOLID	PRINTED ON	: 1/9/2002 13:51

% MOISTURE	:	ANALYST	: RKG
CONTAINER ID	: UL	DATE ANALYZED	: 12/31/2001
DILUTION	: 1	INSTRUMENT FILE	: G5808.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5 g
TIME ANALYZED	: 11:31		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.0	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.0	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.0	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1-Chlorohexane	5.0	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.0	UG/KG	ND	UG/KG	
Benzene	5.0	UG/KG	ND	UG/KG	
Bromobenzene	5.0	UG/KG	ND	UG/KG	
Bromochloromethane	5.0	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK40
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 13:51

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.0	UG/KG	ND	UG/KG	
Bromoform	5.0	UG/KG	ND	UG/KG	
Bromomethane	5.0	UG/KG	ND	UG/KG	
Carbon disulfide	5.0	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.0	UG/KG	ND	UG/KG	
Chlorobenzene	5.0	UG/KG	ND	UG/KG	
Chloroethane	5.0	UG/KG	ND	UG/KG	
Chloroform	5.0	UG/KG	ND	UG/KG	
Chloromethane	5.0	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Dibromochloromethane	5.0	UG/KG	ND	UG/KG	
Dibromomethane	5.0	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.0	UG/KG	ND	UG/KG	
Ethyl benzene	5.0	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.0	UG/KG	ND	UG/KG	
Iodomethane	5.0	UG/KG	ND	UG/KG	
Isopropylbenzene	5.0	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.0	UG/KG	ND	UG/KG	
Methylene chloride	5.0	UG/KG	ND	UG/KG	
n-Butylbenzene	5.0	UG/KG	ND	UG/KG	
n-Propylbenzene	5.0	UG/KG	ND	UG/KG	
Naphthalene	5.0	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.0	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Styrene	5.0	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Tetrachloroethene	5.0	UG/KG	ND	UG/KG	
Toluene	5.0	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Trichloroethene	5.0	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.0	UG/KG	ND	UG/KG	
Vinyl Acetate	5.0	UG/KG	ND	UG/KG	
Vinyl chloride	5.0	UG/KG	ND	UG/KG	
Xylene (total)	5.0	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK40
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 13:51

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	111
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	97
4-Bromofluorobenzene	50 UG/KG	83 - 116	93
Dibromofluoromethane	50 UG/KG	83 - 113	103

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK40 PREP BLANK ID :GVBLK40

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	FVLCS54
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/9/2002 13:51

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 1/1/2002	DILUTION	: 1
INSTRUMENT FILE	: F9128.D	INSTRUMENT ID	: F-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 14:30

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	1.0 UG/L	8.6 UG/L	
Benzene	1.0 UG/L	11 UG/L	
Chlorobenzene	1.0 UG/L	10 UG/L	
Toluene	1.0 UG/L	9.8 UG/L	
Trichloroethene	1.0 UG/L	10 UG/L	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	85
Dibromofluoromethane	10 UG/L	56 - 153	103
Toluene-d8	10 UG/L	68 - 124	91
1,2-Dichloroethane-d4	10 UG/L	64 - 130	101

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID : FVBLK54 PREP BLANK ID : FVBLK54

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	FVLCS54D
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/9/2002 13:51

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 1/1/2002	DILUTION	: 1
INSTRUMENT FILE	: F9129.D	INSTRUMENT ID	: F-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 14:59

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	1.0 UG/L	10 UG/L	
Benzene	1.0 UG/L	11 UG/L	
Chlorobenzene	1.0 UG/L	10 UG/L	
Toluene	1.0 UG/L	10 UG/L	
Trichloroethene	1.0 UG/L	10 UG/L	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	91
Dibromofluoromethane	10 UG/L	56 - 153	106
Toluene-d8	10 UG/L	68 - 124	94
1,2-Dichloroethane-d4	10 UG/L	64 - 130	107

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID : FVBLK54 PREP BLANK ID : FVBLK54 LCS ID : FVLCS54

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LCS/LCSD SUMMARY REPORT

VOLATILES BY GC/MS

CLIENT NAME :
PROJECT NAME :
PROJECT NUMBER :

DATE RECEIVED :
PRINTED ON : 1/9/2002 13:51

SAMPLE MATRIX : LIQUID

METHOD REFERENCE : SW846-8260B

LAB CONTROL SAMPLE

LCS SAMPLE ID : FVLCS54
CLIENT SAMPLE ID :
DATE ANALYZED : 1/1/2002
INSTRUMENT FILE : F9128.D

LAB CONTROL SAMPLE DUPLICATE

LCSD SAMPLE ID : FVLCS54D
CLIENT SAMPLE ID :
DATE ANALYZED : 1/1/2002
INSTRUMENT FILE : F9129.D

PARAMETER	UNITS	LCS TRUE VALUE	LCSD TRUE VALUE	LCS FOUND VALUE	LCSD FOUND VALUE	LCS RECOVER (%)	LCSD RECOVERY (%)	RPD	RPD LIMIT	QC LIMIT REC.
1,1-Dichloroethene	UG/L	10.0	10.0	8.56	10.4	86	104	18.9	20	64 - 132
Benzene	UG/L	10.0	10.0	10.6	11.2	106	112	5.5	20	74 - 131
Chlorobenzene	UG/L	10.0	10.0	10.0	10.4	100	104	3.9	20	81 - 126
Toluene	UG/L	10.0	10.0	9.80	10.4	98	104	5.9	20	62 - 162
Trichloroethene	UG/L	10.0	10.0	10.0	10.4	100	104	3.9	20	67 - 132

* Indicate values outside of QC limits

RPD : 0 out of 5 outside limits
Spike Recovery : 0 out of 10 outside limits

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	GVLCS38
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 13:51

% MOISTURE	:	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5777.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5 g
TIME ANALYZED	: 9:49		

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	5.0 UG/KG	89 UG/KG	
Benzene	5.0 UG/KG	47 UG/KG	
Chlorobenzene	5.0 UG/KG	48 UG/KG	
Toluene	5.0 UG/KG	53 UG/KG	
Trichloroethene	5.0 UG/KG	49 UG/KG	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	101
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	102
4-Bromofluorobenzene	50 UG/KG	83 - 116	110
Dibromofluoromethane	50 UG/KG	83 - 113	98

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	GVLCS38D
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 13:51

% MOISTURE :		ANALYST	: ESP
CONTAINER ID :	UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5778.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5 g
TIME ANALYZED	: 10:20		

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	5.0 UG/KG	54 UG/KG	
Benzene	5.0 UG/KG	46 UG/KG	
Chlorobenzene	5.0 UG/KG	47 UG/KG	
Toluene	5.0 UG/KG	50 UG/KG	
Trichloroethene	5.0 UG/KG	50 UG/KG	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	102
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	90
4-Bromofluorobenzene	50 UG/KG	83 - 116	101
Dibromofluoromethane	50 UG/KG	83 - 113	90

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38	PREP BLANK ID :GVBLK38	LCS ID :GVLCS38

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LCS/LCSD SUMMARY REPORT

VOLATILES BY GC/MS

CLIENT NAME :
PROJECT NAME :
PROJECT NUMBER :

DATE RECEIVED :
PRINTED ON : 1/9/2002 13:51

SAMPLE MATRIX : SOLID

METHOD REFERENCE : SW846-8260B

LAB CONTROL SAMPLE

LCS SAMPLE ID : GVLCS38
CLIENT SAMPLE ID :
DATE ANALYZED : 12/28/2001
INSTRUMENT FILE : G5777.D

LAB CONTROL SAMPLE DUPLICATE

LCSD SAMPLE ID : GVLCS38D
CLIENT SAMPLE ID :
DATE ANALYZED : 12/28/2001
INSTRUMENT FILE : G5778.D

PARAMETER	UNITS	LCS TRUE VALUE	LCSD TRUE VALUE	LCS FOUND VALUE	LCSD FOUND VALUE	LCS RECOVER (%)	LCSD RECOVERY (%)	RPD	RPD LIMIT	QC LIMIT REC.
1,1-Dichloroethene	UG/KG	50.0	50.0	88.9	54.5	178 *	109	48.1 *	20	62 - 136
Benzene	UG/KG	50.0	50.0	47.5	46.1	95	92	3.2	20	69 - 130
Chlorobenzene	UG/KG	50.0	50.0	48.5	46.9	97	94	3.1	20	72 - 112
Toluene	UG/KG	50.0	50.0	52.6	50.0	105	100	4.9	20	66 - 137
Trichloroethene	UG/KG	50.0	50.0	48.7	49.8	97	100	3.0	20	62 - 138

* Indicate values outside of QC limits

RPD : 1 out of 5 outside limits
Spike Recovery : 1 out of 10 outside limits

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	GVLCS40
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 13:51

% MOISTURE :		ANALYST	: RKG
CONTAINER ID :	UL	DATE ANALYZED	: 12/31/2001
DILUTION	: 1	INSTRUMENT FILE	: G5806.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5 g
TIME ANALYZED	: 10:22		

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	5.0 UG/KG	51 UG/KG	
Benzene	5.0 UG/KG	47 UG/KG	
Chlorobenzene	5.0 UG/KG	47 UG/KG	
Toluene	5.0 UG/KG	47 UG/KG	
Trichloroethene	5.0 UG/KG	50 UG/KG	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	96
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	85
4-Bromofluorobenzene	50 UG/KG	83 - 116	89
Dibromofluoromethane	50 UG/KG	83 - 113	86

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK40 PREP BLANK ID :GVBLK40

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	GVLCS40D
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/9/2002 13:51

% MOISTURE :		ANALYST :	RKG
CONTAINER ID :	UL	DATE ANALYZED :	12/31/2001
DILUTION :	1	INSTRUMENT FILE :	G5807.D
INSTRUMENT ID :	G-HP5973	SAMPLE WEIGHT :	5 g
TIME ANALYZED :	10:52		

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	5.0 UG/KG	48 UG/KG	
Benzene	5.0 UG/KG	44 UG/KG	
Chlorobenzene	5.0 UG/KG	44 UG/KG	
Toluene	5.0 UG/KG	45 UG/KG	
Trichloroethene	5.0 UG/KG	47 UG/KG	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	97
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	87
4-Bromofluorobenzene	50 UG/KG	83 - 116	90
Dibromofluoromethane	50 UG/KG	83 - 113	87

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK40 PREP BLANK ID :GVBLK40 LCS ID :GVLCS40

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LCS/LCSD SUMMARY REPORT

VOLATILES BY GC/MS

CLIENT NAME :
PROJECT NAME :
PROJECT NUMBER :

DATE RECEIVED :
PRINTED ON : 1/9/2002 13:51

SAMPLE MATRIX : SOLID

METHOD REFERENCE : SW846-8260B

LAB CONTROL SAMPLE

LCS SAMPLE ID : GVLCS40
CLIENT SAMPLE ID :
DATE ANALYZED : 12/31/2001
INSTRUMENT FILE : G5806.D

LAB CONTROL SAMPLE DUPLICATE

LCSD SAMPLE ID : GVLCS40D
CLIENT SAMPLE ID :
DATE ANALYZED : 12/31/2001
INSTRUMENT FILE : G5807.D

PARAMETER	UNITS	LCS TRUE VALUE	LCSD TRUE VALUE	LCS FOUND VALUE	LCSD FOUND VALUE	LCS RECOVER (%)	LCSD RECOVERY (%)	RPD	RPD LIMIT	QC LIMIT REC.
1,1-Dichloroethene	UG/KG	50.0	50.0	51.0	48.0	102	96	6.1	20	62 - 136
Benzene	UG/KG	50.0	50.0	46.6	44.0	93	88	5.5	20	69 - 130
Chlorobenzene	UG/KG	50.0	50.0	46.7	44.0	93	88	5.5	20	72 - 112
Toluene	UG/KG	50.0	50.0	47.1	45.1	94	90	4.3	20	66 - 137
Trichloroethene	UG/KG	50.0	50.0	49.6	47.2	99	94	5.2	20	62 - 138

* Indicate values outside of QC limits

RPD : 0 out of 5 outside limits
Spike Recovery : 0 out of 10 outside limits

END OF REPORT

TOTAL NUMBER OF PAGES: 121

PDP
Analytical Services

1680 Lake Front Circle, Suite B
The Woodlands, Texas 77380
Phone (281) 363-2233
Fax (281) 298-5784
e-mail pdp@pdpanalytical.com

January 8, 2002

Mr. Greg Watterson
MEVATEC Corporation
P.O. Box 399
Bldg. 126
WSMR, NM 88002

Episode: 7416
Project ID: 800-A9

Dear Mr. Watterson:

Enclosed are the analytical results for the samples received in our laboratory on December 19th, 2001. The samples were analyzed for the parameters indicated on the Chain-of-Custody (COC).

Please be advised that unused portions of your samples, sample extracts and digestates will be stored for 30 days from the date of this report. Unless prior arrangements were made, at the end of this period your samples will either be disposed of, or returned to you if your samples were determined to be hazardous.

Should you have any questions or need assistance with this report, please feel free to call me, at (281) 363-2233.

Sincerely,

Dr. Siva S Palchuru, Ph.D. (for)
Laboratory Director

Enclosures
cc: Episode File – 7416

CHAIN OF CUSTODY

PDP PO# 01P-2055

MEVATEC CORPORATION
P.O. Box 399
Bldg. 126
WSMR, NM 88002
(505) 678-0263

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NO.: 800A9
PROJECT NAME: HWSF Evaporation Tank
SAMPLER'S SIGNATURE: [signature]

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	8260										REMARKS
12-17-01	1140	HWSF-SB09-(1.5-2.0)	Soil		1	X										7416.001
	1150	HWSF-SB09-(3.5-4.0)			1	X										.002
	1155	HWSF-SB09-(5.5-6.0)			1	X										.003
	1220	HWSF-SB09-(11.5-12.0)			1	X										.004
	1300	HWSF-SB09-(19.5-20.0)			1	X										.005
	1320	HWSF-SB09-(24.5-25.0)			1	X										.006
	1425	HWSF-SB10-(1.5-2.0)			1	X										.007
	1437	HWSF-SB10-(3.5-4.0)			1	X										.008
	1443	HWSF-SB10-(5.5-6.0)			1	X										.009
	1450	HWSF-SB10-(11.0-12.0)			1	X										.010
	1504	HWSF-SB10-(19.5-20.0)			1	X										.011
	1522	HWSF-SB10-(24.5-25.0)			1	X										.012
	1542	HWSF-TripBlank-01	Aqueous		3	X										Trip Blank .013
	1542	Temperature Blank	Aqueous		1											Temperature Blank

PROJECT INFORMATION			1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER: Willie Little	SAMPLES RECEIVED		(PRINTED NAME) Greg Watterson	(PRINTED NAME)	(PRINTED NAME) SIVA PALCHORU
SHIPPING ID. NO.	TOTAL NO. OF CONTAINERS		RECEIVED BY:	RECEIVED BY:	(COMPANY)
VIA: FedEx	CHAIN OF CUSTODY SEALS		(TIME / DATE)	(TIME / DATE)	(TIME / DATE) 12/19/01 1400
	GOOD CONDITION/CHILLED		SPECIAL INSTRUCTIONS / COMMENTS:		
	CONFORMS TO RECORD				

PLEASE USE BALL POINT PEN

DISTRIBUTION: WHITE - PROJECT FILES; YELLOW - LAB; PINK - FIELD COPY

PDP ANALYTICAL SERVICES
1680 Lake Front Circle, Suite B, The Woodlands, TX 77380
SAMPLE LOG-IN CHECKLIST/DISCREPANCY REPORT

EPISODE #: 7416 DATE/ REC'D: 12/19/01 TIME

TEMP & ID: 1) 4°C #

CLIENT NAME: MEVATEC

2) #

PROJECT NAME: HWSF EVAPORATION TANK

3) #

PROJECT NUMBER: 80009

4) #

1 AQUEOUS, # 12 SOIL SAMPLES

5) #

COURIER/AIRBILL # 7917 3504 4990

6) #

SAMPLE CONTAINER SEALS: present absent intact broken

COOLER CUSTODY SEALS: present absent intact broken NAME & DATE:

HOW MANY AND WHERE

	YES	NO
Were samples screened for radioactivity?		
Chain-of-custody present?		✓
Custody documents: Sealed in a plastic bag?	✓	
Signed and dated by field personnel	✓	
Filled out properly in indelable ink?	✓	
Signed and dated by log-in personnel?	✓	
Container Condition: Each containers sealed in a separate plastic bag?	✓	
Labels complete (ID, date, time, signature, preservative, etc.)?	✓	
Labels agree with chain-of-custody?		✓
Received without leakage or breakage? If no, list :	✓	
Correct quantity indicated on chain-of-custody?		
Sample Integrity: Correct containers used for the test indicated? If no, list:	✓	
Correct preservatives added to the samples? If no, list:		
Sufficient sample amount sent for the tests indicated? If no, list	✓	
VOA vials filled completely? If no, list: BUBBLES		
Aqueous volatiles samples preserved? If no, list:		

Descrepancy Report:

Discepancies to be discussed with the client?

Project Manager's recommendations?

Who was notified? By whom? Date:

Client's comments:

Corrective actions carried out?

COMMENTS:

For those short holding time and fast turn-around parameters, has a Rush Notification sheet been issued to the lab?

LOG-IN BY: FC

DATE: 12-19-01

0000003

Z:\Forms\Admin\scdr0398.doc

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands TX 77380
Sample Log-In Report

Logged By: HP

Report Date: 12/19/2001 18:16:53

Client Name: MEVATEC CORPORATION
Client Project Name: HWSF EVAPORATION TANK
ClientProject #: 800A9
P.O. No.: 01P-2055
Courier/No.:

Lab Project ID: Q1702
Date Logged: 12/19/01
Date Received: 12/19/01
Time Received: 14:00

Lab Sample ID	Client Sample ID	No. Cont.	Sample Matrix	Date Sampled	Time Sampled	Chain Of Custody No.	Date Due	Remarks
7416.001	HWSF-SB09-(1.5-2.0)	1	SOIL	12/17/01	11:40	7416		
	Tests Required							
	- VOA8260B						01/09/02	
7416.002	HWSF-SB09-(3.5-4.0)	1	SOIL	12/17/01	11:50	7416		
	Tests Required							
	- VOA8260B						01/09/02	
7416.003	HWSF-SB09-(5.5-6.0)	1	SOIL	12/17/01	11:55	7416		
	Tests Required							
	- VOA8260B						01/09/02	
7416.004	HWSF-SB09-(11.5-12.0)	1	SOIL	12/17/01	12:20	7416		
	Tests Required							
	- VOA8260B						01/09/02	
7416.005	HWSF-SB09-(19.5-20.0)	1	SOIL	12/17/01	13:00	7416		
	Tests Required							
	- VOA8260B						01/09/02	
7416.006	HWSF-SB09-(24.5-25.0)	1	SOIL	12/17/01	13:20	7416		
	Tests Required							
	- VOA8260B						01/09/02	
7416.007	HWSF-SB10-(1.5-2.0)	1	SOIL	12/17/01	14:25	7416		
	Tests Required							
	- VOA8260B						01/09/02	
7416.008	HWSF-SB10-(3.5-4.0)	1	SOIL	12/17/01	14:37	7416		
	Tests Required							
	- VOA8260B						01/09/02	
7416.009	HWSF-SB10-(5.5-6.0)	1	SOIL	12/17/01	14:43	7416		
	Tests Required							
	- VOA8260B						01/09/02	
7416.010	HWSF-SB10-(11.0-12.0)	1	SOIL	12/17/01	14:50	7416		
	Tests Required							
	- VOA8260B						01/09/02	
7416.011	HWSF-SB10-(19.5-20.0)	1	SOIL	12/17/01	15:04	7416		
	Tests Required							
	- VOA8260B						01/09/02	
7416.012	HWSF-SB10-(24.5-25.0)	1	SOIL	12/17/01	15:22	7416		
	Tests Required							
	- VOA8260B						01/09/02	

12/19/01

Lab Approval

Client Approval

0000004

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands TX 77380
Sample Log-In Report

Logged By: HP

Report Date: 12/19/2001 18:16:53

Client Name: MEVATEC CORPORATION
Client Project Name: HWSF EVAPORATION TANK
ClientProject #: 800A9
P.O. No.: 01P-2055
Courier/No.:

Lab Project ID: Q1702
Date Logged: 12/19/01
Date Received: 12/19/01
Time Received: 14:00

Lab Sample ID	Client Sample ID	No. Cont.	Sample Matrix	Date Sampled	Time Sampled	Chain Of Custody No.	Date Due	Remarks
7416.013	HWSF-Trip Blank-01	1	WATER	12/17/01	15:42	7416		
	Tests Required							
	- VOA8260B						01/09/02	

Instructions To Lab:

12/19/01

Lab Approval

Client Approval

0000005

VOA

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB09-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.001
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

% MOISTURE	: 5.603	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/27/2001
DILUTION	: 1	INSTRUMENT FILE	: G5765.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.03 g
TIME ANALYZED	: 19:28		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.3	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.3	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.3	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1-Chlorohexane	5.3	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.3	UG/KG	ND	UG/KG	
Benzene	5.3	UG/KG	ND	UG/KG	
Bromobenzene	5.3	UG/KG	ND	UG/KG	
Bromochloromethane	5.3	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB09-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.001
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.3	UG/KG	ND	UG/KG	
Bromoform	5.3	UG/KG	ND	UG/KG	
Bromomethane	5.3	UG/KG	ND	UG/KG	
Carbon disulfide	5.3	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.3	UG/KG	ND	UG/KG	
Chlorobenzene	5.3	UG/KG	ND	UG/KG	
Chloroethane	5.3	UG/KG	ND	UG/KG	
Chloroform	5.3	UG/KG	ND	UG/KG	
Chloromethane	5.3	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Dibromochloromethane	5.3	UG/KG	ND	UG/KG	
Dibromomethane	5.3	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.3	UG/KG	ND	UG/KG	
Ethyl benzene	5.3	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.3	UG/KG	ND	UG/KG	
Iodomethane	5.3	UG/KG	ND	UG/KG	
Isopropylbenzene	5.3	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.3	UG/KG	ND	UG/KG	
Methylene chloride	5.3	UG/KG	8.6	UG/KG	
n-Butylbenzene	5.3	UG/KG	ND	UG/KG	
n-Propylbenzene	5.3	UG/KG	ND	UG/KG	
Naphthalene	5.3	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.3	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Styrene	5.3	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Tetrachloroethene	5.3	UG/KG	ND	UG/KG	
Toluene	5.3	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Trichloroethene	5.3	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.3	UG/KG	ND	UG/KG	
Vinyl Acetate	5.3	UG/KG	ND	UG/KG	
Vinyl chloride	5.3	UG/KG	ND	UG/KG	
Xylene (total)	5.3	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB09-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.001
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	52.6 UG/KG	85 - 112	104
1,2-Dichloroethane-d4	52.6 UG/KG	77 - 122	105
4-Bromofluorobenzene	52.6 UG/KG	83 - 116	80
Dibromofluoromethane	52.6 UG/KG	83 - 113	103

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK37 PREP BLANK ID :GVBLK37 LCS ID :GVLCS37

LCSD ID :GVLCS37D

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB09-(3.5-4.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7416.002
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/17/01	DATE RECEIVED	: 12/19/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/8/2002 17:27

% MOISTURE	: 6.963	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/27/2001
DILUTION	: 1	INSTRUMENT FILE	: G5766.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.01 g
TIME ANALYZED	: 19:59		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.4	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.4	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.4	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.4	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.4	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.4	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.4	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.4	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.4	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.4	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.4	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.4	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.4	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.4	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.4	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1-Chlorohexane	5.4	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.4	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.4	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.4	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.4	UG/KG	ND	UG/KG	
Benzene	5.4	UG/KG	ND	UG/KG	
Bromobenzene	5.4	UG/KG	ND	UG/KG	
Bromochloromethane	5.4	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB09-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.002
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.4	UG/KG	ND	UG/KG	
Bromoform	5.4	UG/KG	ND	UG/KG	
Bromomethane	5.4	UG/KG	ND	UG/KG	
Carbon disulfide	5.4	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.4	UG/KG	ND	UG/KG	
Chlorobenzene	5.4	UG/KG	ND	UG/KG	
Chloroethane	5.4	UG/KG	ND	UG/KG	
Chloroform	5.4	UG/KG	ND	UG/KG	
Chloromethane	5.4	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.4	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.4	UG/KG	ND	UG/KG	
Dibromochloromethane	5.4	UG/KG	ND	UG/KG	
Dibromomethane	5.4	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.4	UG/KG	ND	UG/KG	
Ethyl benzene	5.4	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.4	UG/KG	ND	UG/KG	
Iodomethane	5.4	UG/KG	ND	UG/KG	
Isopropylbenzene	5.4	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.4	UG/KG	ND	UG/KG	
Methylene chloride	5.4	UG/KG	7.1	UG/KG	
n-Butylbenzene	5.4	UG/KG	ND	UG/KG	
n-Propylbenzene	5.4	UG/KG	ND	UG/KG	
Naphthalene	5.4	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.4	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.4	UG/KG	ND	UG/KG	
Styrene	5.4	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.4	UG/KG	ND	UG/KG	
Tetrachloroethene	5.4	UG/KG	ND	UG/KG	
Toluene	5.4	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.4	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.4	UG/KG	ND	UG/KG	
Trichloroethene	5.4	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.4	UG/KG	ND	UG/KG	
Vinyl Acetate	5.4	UG/KG	ND	UG/KG	
Vinyl chloride	5.4	UG/KG	ND	UG/KG	
Xylene (total)	5.4	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB09-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.002
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	53.6 UG/KG	85 - 112	102
1,2-Dichloroethane-d4	53.6 UG/KG	77 - 122	98
4-Bromofluorobenzene	53.6 UG/KG	83 - 116	89
Dibromofluoromethane	53.6 UG/KG	83 - 113	95

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK37 PREP BLANK ID :GVBLK37 LCS ID :GVLCS37

LCSD ID :GVLCS37D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB09-(5.5-6.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7416.003
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/17/01	DATE RECEIVED	: 12/19/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/8/2002 17:27

% MOISTURE	: 6.6	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/27/2001
DILUTION	: 1	INSTRUMENT FILE	: G5767.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.12 g
TIME ANALYZED	: 20:29		

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1,1,2-Tetrachloroethane	5.2 UG/KG	ND UG/KG	
1,1,1-Trichloroethane	5.2 UG/KG	ND UG/KG	
1,1,2,2-Tetrachloroethane	5.2 UG/KG	ND UG/KG	
1,1,2-Trichloroethane	5.2 UG/KG	ND UG/KG	
1,1-Dichloroethane	5.2 UG/KG	ND UG/KG	
1,1-Dichloroethene	5.2 UG/KG	ND UG/KG	
1,1-Dichloropropene	5.2 UG/KG	ND UG/KG	
1,2,3-Trichlorobenzene	5.2 UG/KG	ND UG/KG	
1,2,3-Trichloropropane	5.2 UG/KG	ND UG/KG	
1,2,4-Trichlorobenzene	5.2 UG/KG	ND UG/KG	
1,2,4-Trimethylbenzene	5.2 UG/KG	ND UG/KG	
1,2-Dibromo-3-chloropropane	5.2 UG/KG	ND UG/KG	
1,2-Dibromoethane	5.2 UG/KG	ND UG/KG	
1,2-Dichlorobenzene	5.2 UG/KG	ND UG/KG	
1,2-Dichloroethane	5.2 UG/KG	ND UG/KG	
1,2-Dichloropropane	5.2 UG/KG	ND UG/KG	
1,3,5-Trimethylbenzene	5.2 UG/KG	ND UG/KG	
1,3-Dichlorobenzene	5.2 UG/KG	ND UG/KG	
1,3-Dichloropropane	5.2 UG/KG	ND UG/KG	
1,4-Dichlorobenzene	5.2 UG/KG	ND UG/KG	
1-Chlorohexane	5.2 UG/KG	ND UG/KG	
2,2-Dichloropropane	5.2 UG/KG	ND UG/KG	
2-Butanone	10 UG/KG	ND UG/KG	
2-Chloroethyl vinyl ether	10 UG/KG	ND UG/KG	
2-Chlorotoluene	5.2 UG/KG	ND UG/KG	
2-Hexanone	10 UG/KG	ND UG/KG	
4-Chlorotoluene	5.2 UG/KG	ND UG/KG	
4-Methyl-2-pentanone	10 UG/KG	ND UG/KG	
Acetone	10 UG/KG	ND UG/KG	
Acrylonitrile	5.2 UG/KG	ND UG/KG	
Benzene	5.2 UG/KG	ND UG/KG	
Bromobenzene	5.2 UG/KG	ND UG/KG	
Bromochloromethane	5.2 UG/KG	ND UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB09-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.003
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.2	UG/KG	ND	UG/KG	
Bromoform	5.2	UG/KG	ND	UG/KG	
Bromomethane	5.2	UG/KG	ND	UG/KG	
Carbon disulfide	5.2	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.2	UG/KG	ND	UG/KG	
Chlorobenzene	5.2	UG/KG	ND	UG/KG	
Chloroethane	5.2	UG/KG	ND	UG/KG	
Chloroform	5.2	UG/KG	ND	UG/KG	
Chloromethane	5.2	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.2	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.2	UG/KG	ND	UG/KG	
Dibromochloromethane	5.2	UG/KG	ND	UG/KG	
Dibromomethane	5.2	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.2	UG/KG	ND	UG/KG	
Ethyl benzene	5.2	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.2	UG/KG	ND	UG/KG	
Iodomethane	5.2	UG/KG	ND	UG/KG	
Isopropylbenzene	5.2	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.2	UG/KG	ND	UG/KG	
Methylene chloride	5.2	UG/KG	6.8	UG/KG	
n-Butylbenzene	5.2	UG/KG	ND	UG/KG	
n-Propylbenzene	5.2	UG/KG	ND	UG/KG	
Naphthalene	5.2	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.2	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.2	UG/KG	ND	UG/KG	
Styrene	5.2	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.2	UG/KG	ND	UG/KG	
Tetrachloroethene	5.2	UG/KG	ND	UG/KG	
Toluene	5.2	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.2	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.2	UG/KG	ND	UG/KG	
Trichloroethene	5.2	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.2	UG/KG	ND	UG/KG	
Vinyl Acetate	5.2	UG/KG	ND	UG/KG	
Vinyl chloride	5.2	UG/KG	ND	UG/KG	
Xylene (total)	5.2	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB09-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.003
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	52.3 UG/KG	85 - 112	91
1,2-Dichloroethane-d4	52.3 UG/KG	77 - 122	116
4-Bromofluorobenzene	52.3 UG/KG	83 - 116	94
Dibromofluoromethane	52.3 UG/KG	83 - 113	98

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK37 PREP BLANK ID :GVBLK37 LCS ID :GVLCS37

LCSD ID :GVLCS37D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB09-(11.5-12.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7416.004
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/17/01	DATE RECEIVED	: 12/19/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/8/2002 17:27

% MOISTURE	: 7.121	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/27/2001
DILUTION	: 1	INSTRUMENT FILE	: G5768.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.03 g
TIME ANALYZED	: 21:00		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.3	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.3	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.3	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1-Chlorohexane	5.3	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.3	UG/KG	ND	UG/KG	
Benzene	5.3	UG/KG	ND	UG/KG	
Bromobenzene	5.3	UG/KG	ND	UG/KG	
Bromochloromethane	5.3	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB09-(11.5-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.004
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.3	UG/KG	ND	UG/KG	
Bromoform	5.3	UG/KG	ND	UG/KG	
Bromomethane	5.3	UG/KG	ND	UG/KG	
Carbon disulfide	5.3	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.3	UG/KG	ND	UG/KG	
Chlorobenzene	5.3	UG/KG	ND	UG/KG	
Chloroethane	5.3	UG/KG	ND	UG/KG	
Chloroform	5.3	UG/KG	ND	UG/KG	
Chloromethane	5.3	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Dibromochloromethane	5.3	UG/KG	ND	UG/KG	
Dibromomethane	5.3	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.3	UG/KG	ND	UG/KG	
Ethyl benzene	5.3	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.3	UG/KG	ND	UG/KG	
Iodomethane	5.3	UG/KG	ND	UG/KG	
Isopropylbenzene	5.3	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.3	UG/KG	ND	UG/KG	
Methylene chloride	5.3	UG/KG	6.4	UG/KG	
n-Butylbenzene	5.3	UG/KG	ND	UG/KG	
n-Propylbenzene	5.3	UG/KG	ND	UG/KG	
Naphthalene	5.3	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.3	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Styrene	5.3	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Tetrachloroethene	5.3	UG/KG	ND	UG/KG	
Toluene	5.3	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Trichloroethene	5.3	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.3	UG/KG	ND	UG/KG	
Vinyl Acetate	5.3	UG/KG	ND	UG/KG	
Vinyl chloride	5.3	UG/KG	ND	UG/KG	
Xylene (total)	5.3	UG/KG	ND	UG/KG	

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB09-(11.5-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.004
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	53.6 UG/KG	85 - 112	108
1,2-Dichloroethane-d4	53.6 UG/KG	77 - 122	99
4-Bromofluorobenzene	53.6 UG/KG	83 - 116	84
Dibromofluoromethane	53.6 UG/KG	83 - 113	98

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK37 PREP BLANK ID :GVBLK37 LCS ID :GVLCS37

LCSD ID :GVLCS37D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB09-(19.5-20.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7416.005
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/17/01	DATE RECEIVED	: 12/19/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/8/2002 17:27

% MOISTURE	: 3.693	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/27/2001
DILUTION	: 1	INSTRUMENT FILE	: G5769.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.01 g
TIME ANALYZED	: 21:31		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.2	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.2	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.2	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.2	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.2	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.2	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.2	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.2	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.2	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.2	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.2	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.2	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.2	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.2	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.2	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.2	UG/KG	ND	UG/KG	
1-Chlorohexane	5.2	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.2	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.2	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.2	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.2	UG/KG	ND	UG/KG	
Benzene	5.2	UG/KG	ND	UG/KG	
Bromobenzene	5.2	UG/KG	ND	UG/KG	
Bromochloromethane	5.2	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB09-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.005
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.2	UG/KG	ND	UG/KG	
Bromoform	5.2	UG/KG	ND	UG/KG	
Bromomethane	5.2	UG/KG	ND	UG/KG	
Carbon disulfide	5.2	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.2	UG/KG	ND	UG/KG	
Chlorobenzene	5.2	UG/KG	ND	UG/KG	
Chloroethane	5.2	UG/KG	ND	UG/KG	
Chloroform	5.2	UG/KG	ND	UG/KG	
Chloromethane	5.2	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.2	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.2	UG/KG	ND	UG/KG	
Dibromochloromethane	5.2	UG/KG	ND	UG/KG	
Dibromomethane	5.2	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.2	UG/KG	ND	UG/KG	
Ethyl benzene	5.2	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.2	UG/KG	ND	UG/KG	
Iodomethane	5.2	UG/KG	ND	UG/KG	
Isopropylbenzene	5.2	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.2	UG/KG	ND	UG/KG	
Methylene chloride	5.2	UG/KG	5.8	UG/KG	
n-Butylbenzene	5.2	UG/KG	ND	UG/KG	
n-Propylbenzene	5.2	UG/KG	ND	UG/KG	
Naphthalene	5.2	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.2	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.2	UG/KG	ND	UG/KG	
Styrene	5.2	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.2	UG/KG	ND	UG/KG	
Tetrachloroethene	5.2	UG/KG	ND	UG/KG	
Toluene	5.2	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.2	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.2	UG/KG	ND	UG/KG	
Trichloroethene	5.2	UG/KG	3.3	UG/KG	J
Trichlorofluoromethane	5.2	UG/KG	ND	UG/KG	
Vinyl Acetate	5.2	UG/KG	ND	UG/KG	
Vinyl chloride	5.2	UG/KG	ND	UG/KG	
Xylene (total)	5.2	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB09-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.005
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	51.8 UG/KG	85 - 112	102
1,2-Dichloroethane-d4	51.8 UG/KG	77 - 122	96
4-Bromofluorobenzene	51.8 UG/KG	83 - 116	85
Dibromofluoromethane	51.8 UG/KG	83 - 113	92

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK37 PREP BLANK ID :GVBLK37 LCS ID :GVLCS37

LCSD ID :GVLCS37D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB09-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.006
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

% MOISTURE	: 3.247	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/27/2001
DILUTION	: 1	INSTRUMENT FILE	: G5770.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.03 g
TIME ANALYZED	: 22:01		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.1	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.1	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.1	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.1	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.1	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.1	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.1	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.1	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.1	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.1	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.1	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.1	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.1	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.1	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.1	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.1	UG/KG	ND	UG/KG	
1-Chlorohexane	5.1	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.1	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.1	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.1	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.1	UG/KG	ND	UG/KG	
Benzene	5.1	UG/KG	ND	UG/KG	
Bromobenzene	5.1	UG/KG	ND	UG/KG	
Bromochloromethane	5.1	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB09-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.006
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.1	UG/KG	ND	UG/KG	
Bromoform	5.1	UG/KG	ND	UG/KG	
Bromomethane	5.1	UG/KG	ND	UG/KG	
Carbon disulfide	5.1	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.1	UG/KG	ND	UG/KG	
Chlorobenzene	5.1	UG/KG	ND	UG/KG	
Chloroethane	5.1	UG/KG	ND	UG/KG	
Chloroform	5.1	UG/KG	ND	UG/KG	
Chloromethane	5.1	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.1	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.1	UG/KG	ND	UG/KG	
Dibromochloromethane	5.1	UG/KG	ND	UG/KG	
Dibromomethane	5.1	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.1	UG/KG	ND	UG/KG	
Ethyl benzene	5.1	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.1	UG/KG	ND	UG/KG	
Iodomethane	5.1	UG/KG	ND	UG/KG	
Isopropylbenzene	5.1	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.1	UG/KG	ND	UG/KG	
Methylene chloride	5.1	UG/KG	5.4	UG/KG	
n-Butylbenzene	5.1	UG/KG	ND	UG/KG	
n-Propylbenzene	5.1	UG/KG	ND	UG/KG	
Naphthalene	5.1	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.1	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.1	UG/KG	ND	UG/KG	
Styrene	5.1	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.1	UG/KG	ND	UG/KG	
Tetrachloroethene	5.1	UG/KG	ND	UG/KG	
Toluene	5.1	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.1	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.1	UG/KG	ND	UG/KG	
Trichloroethene	5.1	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.1	UG/KG	ND	UG/KG	
Vinyl Acetate	5.1	UG/KG	ND	UG/KG	
Vinyl chloride	5.1	UG/KG	ND	UG/KG	
Xylene (total)	5.1	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB09-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.006
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	51.4 UG/KG	85 - 112	101
1,2-Dichloroethane-d4	51.4 UG/KG	77 - 122	96
4-Bromofluorobenzene	51.4 UG/KG	83 - 116	81
Dibromofluoromethane	51.4 UG/KG	83 - 113	92

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK37 PREP BLANK ID :GVBLK37 LCS ID :GVLCS37

LCSD ID :GVLCS37D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB10-(1.5-2.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7416.007
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/17/01	DATE RECEIVED	: 12/19/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/8/2002 17:27

% MOISTURE	: 5.951	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/27/2001
DILUTION	: 1	INSTRUMENT FILE	: G5771.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.05 g
TIME ANALYZED	: 22:32		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.3	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.3	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.3	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1-Chlorohexane	5.3	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.3	UG/KG	ND	UG/KG	
Benzene	5.3	UG/KG	ND	UG/KG	
Bromobenzene	5.3	UG/KG	ND	UG/KG	
Bromochloromethane	5.3	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB10-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.007
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.3	UG/KG	ND	UG/KG	
Bromoform	5.3	UG/KG	ND	UG/KG	
Bromomethane	5.3	UG/KG	ND	UG/KG	
Carbon disulfide	5.3	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.3	UG/KG	ND	UG/KG	
Chlorobenzene	5.3	UG/KG	ND	UG/KG	
Chloroethane	5.3	UG/KG	ND	UG/KG	
Chloroform	5.3	UG/KG	ND	UG/KG	
Chloromethane	5.3	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Dibromochloromethane	5.3	UG/KG	ND	UG/KG	
Dibromomethane	5.3	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.3	UG/KG	ND	UG/KG	
Ethyl benzene	5.3	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.3	UG/KG	ND	UG/KG	
Iodomethane	5.3	UG/KG	ND	UG/KG	
Isopropylbenzene	5.3	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.3	UG/KG	ND	UG/KG	
Methylene chloride	5.3	UG/KG	5.8	UG/KG	
n-Butylbenzene	5.3	UG/KG	ND	UG/KG	
n-Propylbenzene	5.3	UG/KG	ND	UG/KG	
Naphthalene	5.3	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.3	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Styrene	5.3	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Tetrachloroethene	5.3	UG/KG	ND	UG/KG	
Toluene	5.3	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Trichloroethene	5.3	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.3	UG/KG	ND	UG/KG	
Vinyl Acetate	5.3	UG/KG	ND	UG/KG	
Vinyl chloride	5.3	UG/KG	ND	UG/KG	
Xylene (total)	5.3	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB10-(1.5-2.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.007
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	52.6 UG/KG	85 - 112	103
1,2-Dichloroethane-d4	52.6 UG/KG	77 - 122	96
4-Bromofluorobenzene	52.6 UG/KG	83 - 116	89
Dibromofluoromethane	52.6 UG/KG	83 - 113	95

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK37 PREP BLANK ID :GVBLK37 LCS ID :GVLCS37
LCSD ID :GVLCS37D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB10-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.008
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

% MOISTURE	: 9.339	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/27/2001
DILUTION	: 1	INSTRUMENT FILE	: G5772.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.02 g
TIME ANALYZED	: 23:03		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.5	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.5	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.5	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.5	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.5	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.5	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.5	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.5	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.5	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.5	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.5	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.5	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.5	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.5	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.5	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.5	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.5	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.5	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.5	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.5	UG/KG	ND	UG/KG	
1-Chlorohexane	5.5	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.5	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.5	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.5	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.5	UG/KG	ND	UG/KG	
Benzene	5.5	UG/KG	ND	UG/KG	
Bromobenzene	5.5	UG/KG	ND	UG/KG	
Bromochloromethane	5.5	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB10-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.008
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.5	UG/KG	ND	UG/KG	
Bromoform	5.5	UG/KG	ND	UG/KG	
Bromomethane	5.5	UG/KG	ND	UG/KG	
Carbon disulfide	5.5	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.5	UG/KG	ND	UG/KG	
Chlorobenzene	5.5	UG/KG	ND	UG/KG	
Chloroethane	5.5	UG/KG	ND	UG/KG	
Chloroform	5.5	UG/KG	ND	UG/KG	
Chloromethane	5.5	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.5	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.5	UG/KG	ND	UG/KG	
Dibromochloromethane	5.5	UG/KG	ND	UG/KG	
Dibromomethane	5.5	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.5	UG/KG	ND	UG/KG	
Ethyl benzene	5.5	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.5	UG/KG	ND	UG/KG	
Iodomethane	5.5	UG/KG	ND	UG/KG	
Isopropylbenzene	5.5	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.5	UG/KG	ND	UG/KG	
Methylene chloride	5.5	UG/KG	5.8	UG/KG	
n-Butylbenzene	5.5	UG/KG	ND	UG/KG	
n-Propylbenzene	5.5	UG/KG	ND	UG/KG	
Naphthalene	5.5	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.5	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.5	UG/KG	ND	UG/KG	
Styrene	5.5	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.5	UG/KG	ND	UG/KG	
Tetrachloroethene	5.5	UG/KG	ND	UG/KG	
Toluene	5.5	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.5	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.5	UG/KG	ND	UG/KG	
Trichloroethene	5.5	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.5	UG/KG	ND	UG/KG	
Vinyl Acetate	5.5	UG/KG	ND	UG/KG	
Vinyl chloride	5.5	UG/KG	ND	UG/KG	
Xylene (total)	5.5	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB10-(3.5-4.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.008
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	54.9 UG/KG	85 - 112	100
1,2-Dichloroethane-d4	54.9 UG/KG	77 - 122	85
4-Bromofluorobenzene	54.9 UG/KG	83 - 116	96
Dibromofluoromethane	54.9 UG/KG	83 - 113	86

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK37 PREP BLANK ID :GVBLK37 LCS ID :GVLCS37

LCSD ID :GVLCS37D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-SB10-(5.5-6.0)
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7416.009
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/17/01	DATE RECEIVED	: 12/19/2001
SAMPLE MATRIX	: SOIL	PRINTED ON	: 1/8/2002 17:27

% MOISTURE	: 7.257	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/27/2001
DILUTION	: 1	INSTRUMENT FILE	: G5773.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5 g
TIME ANALYZED	: 23:34		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.4	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.4	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.4	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.4	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.4	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.4	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.4	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.4	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.4	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.4	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.4	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.4	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.4	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.4	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.4	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.4	UG/KG	ND	UG/KG	
1-Chlorohexane	5.4	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.4	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.4	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.4	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.4	UG/KG	ND	UG/KG	
Benzene	5.4	UG/KG	ND	UG/KG	
Bromobenzene	5.4	UG/KG	ND	UG/KG	
Bromochloromethane	5.4	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB10-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.009
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.4	UG/KG	ND	UG/KG	
Bromoform	5.4	UG/KG	ND	UG/KG	
Bromomethane	5.4	UG/KG	ND	UG/KG	
Carbon disulfide	5.4	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.4	UG/KG	ND	UG/KG	
Chlorobenzene	5.4	UG/KG	ND	UG/KG	
Chloroethane	5.4	UG/KG	ND	UG/KG	
Chloroform	5.4	UG/KG	ND	UG/KG	
Chloromethane	5.4	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.4	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.4	UG/KG	ND	UG/KG	
Dibromochloromethane	5.4	UG/KG	ND	UG/KG	
Dibromomethane	5.4	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.4	UG/KG	ND	UG/KG	
Ethyl benzene	5.4	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.4	UG/KG	ND	UG/KG	
Iodomethane	5.4	UG/KG	ND	UG/KG	
Isopropylbenzene	5.4	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.4	UG/KG	ND	UG/KG	
Methylene chloride	5.4	UG/KG	5.3	UG/KG	
n-Butylbenzene	5.4	UG/KG	ND	UG/KG	
n-Propylbenzene	5.4	UG/KG	ND	UG/KG	
Naphthalene	5.4	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.4	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.4	UG/KG	ND	UG/KG	
Styrene	5.4	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.4	UG/KG	ND	UG/KG	
Tetrachloroethene	5.4	UG/KG	ND	UG/KG	
Toluene	5.4	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.4	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.4	UG/KG	ND	UG/KG	
Trichloroethene	5.4	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.4	UG/KG	ND	UG/KG	
Vinyl Acetate	5.4	UG/KG	ND	UG/KG	
Vinyl chloride	5.4	UG/KG	ND	UG/KG	
Xylene (total)	5.4	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB10-(5.5-6.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.009
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	53.9 UG/KG	85 - 112	101
1,2-Dichloroethane-d4	53.9 UG/KG	77 - 122	90
4-Bromofluorobenzene	53.9 UG/KG	83 - 116	99
Dibromofluoromethane	53.9 UG/KG	83 - 113	91

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK37 PREP BLANK ID :GVBLK37 LCS ID :GVLCS37

LCSD ID :GVLCS37D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB10-(11.0-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.010
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 18:02

% MOISTURE	: 6.275	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5779.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.02 g
TIME ANALYZED	: 10:51		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.3	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.3	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.3	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.3	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.3	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.3	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.3	UG/KG	ND	UG/KG	
1-Chlorohexane	5.3	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.3	UG/KG	ND	UG/KG	
2-Butanone	11	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	11	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
2-Hexanone	11	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.3	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	11	UG/KG	ND	UG/KG	
Acetone	11	UG/KG	ND	UG/KG	
Acrylonitrile	5.3	UG/KG	ND	UG/KG	
Benzene	5.3	UG/KG	ND	UG/KG	
Bromobenzene	5.3	UG/KG	ND	UG/KG	
Bromochloromethane	5.3	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB10-(11.0-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.010
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 18:02

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.3	UG/KG	ND	UG/KG	
Bromoform	5.3	UG/KG	ND	UG/KG	
Bromomethane	5.3	UG/KG	ND	UG/KG	
Carbon disulfide	5.3	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.3	UG/KG	ND	UG/KG	
Chlorobenzene	5.3	UG/KG	ND	UG/KG	
Chloroethane	5.3	UG/KG	ND	UG/KG	
Chloroform	5.3	UG/KG	ND	UG/KG	
Chloromethane	5.3	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Dibromochloromethane	5.3	UG/KG	ND	UG/KG	
Dibromomethane	5.3	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.3	UG/KG	ND	UG/KG	
Ethyl benzene	5.3	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.3	UG/KG	ND	UG/KG	
Iodomethane	5.3	UG/KG	ND	UG/KG	
Isopropylbenzene	5.3	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.3	UG/KG	ND	UG/KG	
Methylene chloride	5.3	UG/KG	ND	UG/KG	
n-Butylbenzene	5.3	UG/KG	ND	UG/KG	
n-Propylbenzene	5.3	UG/KG	ND	UG/KG	
Naphthalene	5.3	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.3	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Styrene	5.3	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.3	UG/KG	ND	UG/KG	
Tetrachloroethene	5.3	UG/KG	ND	UG/KG	
Toluene	5.3	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.3	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.3	UG/KG	ND	UG/KG	
Trichloroethene	5.3	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.3	UG/KG	ND	UG/KG	
Vinyl Acetate	5.3	UG/KG	ND	UG/KG	
Vinyl chloride	5.3	UG/KG	ND	UG/KG	
Xylene (total)	5.3	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB10-(11.0-12.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.010
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 18:02

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	53.1 UG/KG	85 - 112	99
1,2-Dichloroethane-d4	53.1 UG/KG	77 - 122	91
4-Bromofluorobenzene	53.1 UG/KG	83 - 116	90
Dibromofluoromethane	53.1 UG/KG	83 - 113	93

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38 LCS ID :GVLCS38

LCSD ID :GVLCS38D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB10-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.011
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

% MOISTURE	: 2.477	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5780.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.08 g
TIME ANALYZED	: 11:22		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.0	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.0	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.0	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1-Chlorohexane	5.0	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.0	UG/KG	ND	UG/KG	
Benzene	5.0	UG/KG	ND	UG/KG	
Bromobenzene	5.0	UG/KG	ND	UG/KG	
Bromochloromethane	5.0	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB10-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.011
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.0	UG/KG	ND	UG/KG	
Bromoform	5.0	UG/KG	ND	UG/KG	
Bromomethane	5.0	UG/KG	ND	UG/KG	
Carbon disulfide	5.0	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.0	UG/KG	ND	UG/KG	
Chlorobenzene	5.0	UG/KG	ND	UG/KG	
Chloroethane	5.0	UG/KG	ND	UG/KG	
Chloroform	5.0	UG/KG	ND	UG/KG	
Chloromethane	5.0	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Dibromochloromethane	5.0	UG/KG	ND	UG/KG	
Dibromomethane	5.0	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.0	UG/KG	ND	UG/KG	
Ethyl benzene	5.0	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.0	UG/KG	ND	UG/KG	
Iodomethane	5.0	UG/KG	ND	UG/KG	
Isopropylbenzene	5.0	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.0	UG/KG	ND	UG/KG	
Methylene chloride	5.0	UG/KG	ND	UG/KG	
n-Butylbenzene	5.0	UG/KG	ND	UG/KG	
n-Propylbenzene	5.0	UG/KG	ND	UG/KG	
Naphthalene	5.0	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.0	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Styrene	5.0	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Tetrachloroethene	5.0	UG/KG	ND	UG/KG	
Toluene	5.0	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Trichloroethene	5.0	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.0	UG/KG	ND	UG/KG	
Vinyl Acetate	5.0	UG/KG	ND	UG/KG	
Vinyl chloride	5.0	UG/KG	ND	UG/KG	
Xylene (total)	5.0	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB10-(19.5-20.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.011
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50.5 UG/KG	85 - 112	102
1,2-Dichloroethane-d4	50.5 UG/KG	77 - 122	95
4-Bromofluorobenzene	50.5 UG/KG	83 - 116	89
Dibromofluoromethane	50.5 UG/KG	83 - 113	95

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38 LCS ID :GVLCS38

LCSD ID :GVLCS38D

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB10-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.012
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

% MOISTURE	: 2.932	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5781.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5.06 g
TIME ANALYZED	: 11:54		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.1	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.1	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.1	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.1	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.1	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.1	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.1	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.1	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.1	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.1	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.1	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.1	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.1	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.1	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.1	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.1	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.1	UG/KG	ND	UG/KG	
1-Chlorohexane	5.1	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.1	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.1	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.1	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.1	UG/KG	ND	UG/KG	
Benzene	5.1	UG/KG	ND	UG/KG	
Bromobenzene	5.1	UG/KG	ND	UG/KG	
Bromochloromethane	5.1	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB10-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.012
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.1	UG/KG	ND	UG/KG	
Bromoform	5.1	UG/KG	ND	UG/KG	
Bromomethane	5.1	UG/KG	ND	UG/KG	
Carbon disulfide	5.1	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.1	UG/KG	ND	UG/KG	
Chlorobenzene	5.1	UG/KG	ND	UG/KG	
Chloroethane	5.1	UG/KG	ND	UG/KG	
Chloroform	5.1	UG/KG	ND	UG/KG	
Chloromethane	5.1	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.1	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.1	UG/KG	ND	UG/KG	
Dibromochloromethane	5.1	UG/KG	ND	UG/KG	
Dibromomethane	5.1	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.1	UG/KG	ND	UG/KG	
Ethyl benzene	5.1	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.1	UG/KG	ND	UG/KG	
Iodomethane	5.1	UG/KG	ND	UG/KG	
Isopropylbenzene	5.1	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.1	UG/KG	ND	UG/KG	
Methylene chloride	5.1	UG/KG	ND	UG/KG	
n-Butylbenzene	5.1	UG/KG	ND	UG/KG	
n-Propylbenzene	5.1	UG/KG	ND	UG/KG	
Naphthalene	5.1	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.1	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.1	UG/KG	ND	UG/KG	
Styrene	5.1	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.1	UG/KG	ND	UG/KG	
Tetrachloroethene	5.1	UG/KG	ND	UG/KG	
Toluene	5.1	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.1	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.1	UG/KG	ND	UG/KG	
Trichloroethene	5.1	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.1	UG/KG	ND	UG/KG	
Vinyl Acetate	5.1	UG/KG	ND	UG/KG	
Vinyl chloride	5.1	UG/KG	ND	UG/KG	
Xylene (total)	5.1	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-SB10-(24.5-25.0)
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.012
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	SOIL	PRINTED ON :	1/8/2002 17:27

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50.9 UG/KG	85 - 112	95
1,2-Dichloroethane-d4	50.9 UG/KG	77 - 122	107
4-Bromofluorobenzene	50.9 UG/KG	83 - 116	99
Dibromofluoromethane	50.9 UG/KG	83 - 113	96

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38 LCS ID :GVLCS38

LCSD ID :GVLCS38D

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-Trip Blank-01
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7416.013
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/17/01	DATE RECEIVED	: 12/19/2001
SAMPLE MATRIX	: WATER	PRINTED ON	: 1/8/2002 18:12

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 12/31/2001	DILUTION	: 1
INSTRUMENT FILE	: F9113.D	INSTRUMENT ID	: F-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 21:08

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,1-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1,2,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,2-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethene	1.0	UG/L	ND	UG/L	
1,1-Dichloropropene	1.0	UG/L	ND	UG/L	
1,2,3-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,3-Trichloropropane	1.0	UG/L	ND	UG/L	
1,2,4-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,4-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,2-Dibromo-3-chloropropane	1.0	UG/L	ND	UG/L	
1,2-Dibromoethane	1.0	UG/L	ND	UG/L	
1,2-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,2-Dichloroethane	1.0	UG/L	ND	UG/L	
1,2-Dichloropropane	1.0	UG/L	ND	UG/L	
1,3,5-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,3-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,3-Dichloropropane	1.0	UG/L	ND	UG/L	
1,4-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1-Chlorohexane	1.0	UG/L	ND	UG/L	
2,2-Dichloropropane	1.0	UG/L	ND	UG/L	
2-Butanone	5.0	UG/L	ND	UG/L	
2-Chloroethyl vinyl ether	2.0	UG/L	ND	UG/L	
2-Chlorotoluene	1.0	UG/L	ND	UG/L	
2-Hexanone	5.0	UG/L	ND	UG/L	
4-Chlorotoluene	1.0	UG/L	ND	UG/L	
4-Methyl-2-pentanone	5.0	UG/L	ND	UG/L	
Acetone	5.0	UG/L	ND	UG/L	
Acrolein	5.0	UG/L	ND	UG/L	
Acrylonitrile	1.0	UG/L	ND	UG/L	
Benzene	1.0	UG/L	ND	UG/L	
Bromobenzene	1.0	UG/L	ND	UG/L	
Bromochloromethane	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-Trip Blank-01
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.013
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	WATER	PRINTED ON :	1/8/2002 18:12

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	ND	UG/L	
Bromoform	1.0	UG/L	ND	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	ND	UG/L	
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	ND	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	ND	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-Trip Blank-01
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7416.013
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/17/01	DATE RECEIVED :	12/19/2001
SAMPLE MATRIX :	WATER	PRINTED ON :	1/8/2002 18:12

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	97
Dibromofluoromethane	10 UG/L	56 - 153	126
Toluene-d8	10 UG/L	68 - 124	115
1,2-Dichloroethane-d4	10 UG/L	64 - 130	122

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID : FVBLK53 PREP BLANK ID : FVBLK53 LCS ID : FVLCS53

LCSD ID : FVLCS53D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	:	CLIENT SAMPLE ID	: Prep Blank
PROJECT NAME	:	LAB SAMPLE ID	: GVBLK37
PROJECT NUMBER	:	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	:	DATE RECEIVED	:
SAMPLE MATRIX	: SOLID	PRINTED ON	: 1/8/2002 17:27

% MOISTURE	:	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/27/2001
DILUTION	: 1	INSTRUMENT FILE	: G5759.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5 g
TIME ANALYZED	: 16:25		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.0	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.0	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.0	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1-Chlorohexane	5.0	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.0	UG/KG	ND	UG/KG	
Benzene	5.0	UG/KG	ND	UG/KG	
Bromobenzene	5.0	UG/KG	ND	UG/KG	
Bromochloromethane	5.0	UG/KG	ND	UG/KG	

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK37
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/8/2002 17:27

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.0	UG/KG	ND	UG/KG	
Bromoform	5.0	UG/KG	ND	UG/KG	
Bromomethane	5.0	UG/KG	ND	UG/KG	
Carbon disulfide	5.0	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.0	UG/KG	ND	UG/KG	
Chlorobenzene	5.0	UG/KG	ND	UG/KG	
Chloroethane	5.0	UG/KG	ND	UG/KG	
Chloroform	5.0	UG/KG	ND	UG/KG	
Chloromethane	5.0	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Dibromochloromethane	5.0	UG/KG	ND	UG/KG	
Dibromomethane	5.0	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.0	UG/KG	ND	UG/KG	
Ethyl benzene	5.0	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.0	UG/KG	ND	UG/KG	
Iodomethane	5.0	UG/KG	ND	UG/KG	
Isopropylbenzene	5.0	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.0	UG/KG	ND	UG/KG	
Methylene chloride	5.0	UG/KG	ND	UG/KG	
n-Butylbenzene	5.0	UG/KG	ND	UG/KG	
n-Propylbenzene	5.0	UG/KG	ND	UG/KG	
Naphthalene	5.0	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.0	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Styrene	5.0	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Tetrachloroethene	5.0	UG/KG	ND	UG/KG	
Toluene	5.0	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Trichloroethene	5.0	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.0	UG/KG	ND	UG/KG	
Vinyl Acetate	5.0	UG/KG	ND	UG/KG	
Vinyl chloride	5.0	UG/KG	ND	UG/KG	
Xylene (total)	5.0	UG/KG	ND	UG/KG	

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK37
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/8/2002 17:27

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	102
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	92
4-Bromofluorobenzene	50 UG/KG	83 - 116	92
Dibromofluoromethane	50 UG/KG	83 - 113	94

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK37 PREP BLANK ID :GVBLK37

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	:	CLIENT SAMPLE ID	: Prep Blank
PROJECT NAME	:	LAB SAMPLE ID	: GVBLK38
PROJECT NUMBER	:	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	:	DATE RECEIVED	:
SAMPLE MATRIX	: SOLID	PRINTED ON	: 1/8/2002 17:27

% MOISTURE	:	ANALYST	: ESP
CONTAINER ID	: UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5776.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5 g
TIME ANALYZED	: 9:18		

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,1-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2,2-Tetrachloroethane	5.0	UG/KG	ND	UG/KG	
1,1,2-Trichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,1-Dichloroethene	5.0	UG/KG	ND	UG/KG	
1,1-Dichloropropene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,3-Trichloropropane	5.0	UG/KG	ND	UG/KG	
1,2,4-Trichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2,4-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dibromo-3-chloropropane	5.0	UG/KG	ND	UG/KG	
1,2-Dibromoethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,2-Dichloroethane	5.0	UG/KG	ND	UG/KG	
1,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,3,5-Trimethylbenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1,3-Dichloropropane	5.0	UG/KG	ND	UG/KG	
1,4-Dichlorobenzene	5.0	UG/KG	ND	UG/KG	
1-Chlorohexane	5.0	UG/KG	ND	UG/KG	
2,2-Dichloropropane	5.0	UG/KG	ND	UG/KG	
2-Butanone	10	UG/KG	ND	UG/KG	
2-Chloroethyl vinyl ether	10	UG/KG	ND	UG/KG	
2-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
2-Hexanone	10	UG/KG	ND	UG/KG	
4-Chlorotoluene	5.0	UG/KG	ND	UG/KG	
4-Methyl-2-pentanone	10	UG/KG	ND	UG/KG	
Acetone	10	UG/KG	ND	UG/KG	
Acrylonitrile	5.0	UG/KG	ND	UG/KG	
Benzene	5.0	UG/KG	ND	UG/KG	
Bromobenzene	5.0	UG/KG	ND	UG/KG	
Bromochloromethane	5.0	UG/KG	ND	UG/KG	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK38
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/8/2002 17:27

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	5.0	UG/KG	ND	UG/KG	
Bromoform	5.0	UG/KG	ND	UG/KG	
Bromomethane	5.0	UG/KG	ND	UG/KG	
Carbon disulfide	5.0	UG/KG	ND	UG/KG	
Carbon tetrachloride	5.0	UG/KG	ND	UG/KG	
Chlorobenzene	5.0	UG/KG	ND	UG/KG	
Chloroethane	5.0	UG/KG	ND	UG/KG	
Chloroform	5.0	UG/KG	ND	UG/KG	
Chloromethane	5.0	UG/KG	ND	UG/KG	
cis-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
cis-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Dibromochloromethane	5.0	UG/KG	ND	UG/KG	
Dibromomethane	5.0	UG/KG	ND	UG/KG	
Dichlorodifluoromethane	5.0	UG/KG	ND	UG/KG	
Ethyl benzene	5.0	UG/KG	ND	UG/KG	
Hexachlorobutadiene	5.0	UG/KG	ND	UG/KG	
Iodomethane	5.0	UG/KG	ND	UG/KG	
Isopropylbenzene	5.0	UG/KG	ND	UG/KG	
Methyl t-Butylether	5.0	UG/KG	ND	UG/KG	
Methylene chloride	5.0	UG/KG	ND	UG/KG	
n-Butylbenzene	5.0	UG/KG	ND	UG/KG	
n-Propylbenzene	5.0	UG/KG	ND	UG/KG	
Naphthalene	5.0	UG/KG	ND	UG/KG	
p-Isopropyltoluene	5.0	UG/KG	ND	UG/KG	
sec-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Styrene	5.0	UG/KG	ND	UG/KG	
tert-Butylbenzene	5.0	UG/KG	ND	UG/KG	
Tetrachloroethene	5.0	UG/KG	ND	UG/KG	
Toluene	5.0	UG/KG	ND	UG/KG	
trans-1,2-Dichloroethene	5.0	UG/KG	ND	UG/KG	
trans-1,3-Dichloropropene	5.0	UG/KG	ND	UG/KG	
Trichloroethene	5.0	UG/KG	ND	UG/KG	
Trichlorofluoromethane	5.0	UG/KG	ND	UG/KG	
Vinyl Acetate	5.0	UG/KG	ND	UG/KG	
Vinyl chloride	5.0	UG/KG	ND	UG/KG	
Xylene (total)	5.0	UG/KG	ND	UG/KG	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK38
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/8/2002 17:27

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	100
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	92
4-Bromofluorobenzene	50 UG/KG	83 - 116	108
Dibromofluoromethane	50 UG/KG	83 - 113	93

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	FVBLK53
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/8/2002 18:12

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 12/31/2001	DILUTION	: 1
INSTRUMENT FILE	: F9111.D	INSTRUMENT ID	: F-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 19:53

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,1-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1,2,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,2-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethene	1.0	UG/L	ND	UG/L	
1,1-Dichloropropene	1.0	UG/L	ND	UG/L	
1,2,3-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,3-Trichloropropane	1.0	UG/L	ND	UG/L	
1,2,4-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,4-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,2-Dibromo-3-chloropropane	1.0	UG/L	ND	UG/L	
1,2-Dibromoethane	1.0	UG/L	ND	UG/L	
1,2-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,2-Dichloroethane	1.0	UG/L	ND	UG/L	
1,2-Dichloropropane	1.0	UG/L	ND	UG/L	
1,3,5-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,3-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,3-Dichloropropane	1.0	UG/L	ND	UG/L	
1,4-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1-Chlorohexane	1.0	UG/L	ND	UG/L	
2,2-Dichloropropane	1.0	UG/L	ND	UG/L	
2-Butanone	5.0	UG/L	ND	UG/L	
2-Chloroethyl vinyl ether	2.0	UG/L	ND	UG/L	
2-Chlorotoluene	1.0	UG/L	ND	UG/L	
2-Hexanone	5.0	UG/L	ND	UG/L	
4-Chlorotoluene	1.0	UG/L	ND	UG/L	
4-Methyl-2-pentanone	5.0	UG/L	ND	UG/L	
Acetone	5.0	UG/L	ND	UG/L	
Acrolein	5.0	UG/L	ND	UG/L	
Acrylonitrile	1.0	UG/L	ND	UG/L	
Benzene	1.0	UG/L	ND	UG/L	
Bromobenzene	1.0	UG/L	ND	UG/L	
Bromochloromethane	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	FVBLK53
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/8/2002 18:12

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	ND	UG/L	
Bromoform	1.0	UG/L	ND	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	ND	UG/L	
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	ND	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	ND	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	FVBLK53
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/8/2002 18:12

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	73
Dibromofluoromethane	10 UG/L	56 - 153	111
Toluene-d8	10 UG/L	68 - 124	100
1,2-Dichloroethane-d4	10 UG/L	64 - 130	108

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID : FVBLK53 PREP BLANK ID : FVBLK53

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	GVLCS37
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/8/2002 17:27

% MOISTURE :		ANALYST	: ESP
CONTAINER ID :	UL	DATE ANALYZED	: 12/27/2001
DILUTION	: 1	INSTRUMENT FILE	: G5760.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5 g
TIME ANALYZED	: 16:56		

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	5.0 UG/KG	48 UG/KG	
Benzene	5.0 UG/KG	47 UG/KG	
Chlorobenzene	5.0 UG/KG	47 UG/KG	
Toluene	5.0 UG/KG	50 UG/KG	
Trichloroethene	5.0 UG/KG	50 UG/KG	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	99
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	93
4-Bromofluorobenzene	50 UG/KG	83 - 116	101
Dibromofluoromethane	50 UG/KG	83 - 113	91

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK37 PREP BLANK ID :GVBLK37

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	GVLCS37D
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/8/2002 17:27

% MOISTURE :		ANALYST	: ESP
CONTAINER ID :	UL	DATE ANALYZED	: 12/27/2001
DILUTION	: 1	INSTRUMENT FILE	: G5761.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5 g
TIME ANALYZED	: 17:26		

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	5.0 UG/KG	48 UG/KG	
Benzene	5.0 UG/KG	48 UG/KG	
Chlorobenzene	5.0 UG/KG	48 UG/KG	
Toluene	5.0 UG/KG	48 UG/KG	
Trichloroethene	5.0 UG/KG	50 UG/KG	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	103
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	90
4-Bromofluorobenzene	50 UG/KG	83 - 116	95
Dibromofluoromethane	50 UG/KG	83 - 113	92

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK37	PREP BLANK ID :GVBLK37	LCS ID :GVLCS37

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LCS/LCSD SUMMARY REPORT

VOLATILES BY GC/MS

CLIENT NAME :
PROJECT NAME :
PROJECT NUMBER :

DATE RECEIVED :
PRINTED ON : 1/8/2002 17:27

SAMPLE MATRIX : SOLID

METHOD REFERENCE : SW846-8260B

LAB CONTROL SAMPLE
LCS SAMPLE ID : GVLCS37
CLIENT SAMPLE ID :
DATE ANALYZED : 12/27/2001
INSTRUMENT FILE : G5760.D

LAB CONTROL SAMPLE DUPLICATE
LCSD SAMPLE ID : GVLCS37D
CLIENT SAMPLE ID :
DATE ANALYZED : 12/27/2001
INSTRUMENT FILE : G5761.D

PARAMETER	UNITS	LCS TRUE VALUE	LCSD TRUE VALUE	LCS FOUND VALUE	LCSD FOUND VALUE	LCS RECOVER (%)	LCSD RECOVERY (%)	RPD	RPD LIMIT	QC LIMIT REC.
1,1-Dichloroethene	UG/KG	50.0	50.0	47.6	48.4	95	97	2.1	20	62 - 136
Benzene	UG/KG	50.0	50.0	47.0	48.2	94	96	2.1	20	69 - 130
Chlorobenzene	UG/KG	50.0	50.0	46.8	47.7	94	95	1.1	20	72 - 112
Toluene	UG/KG	50.0	50.0	50.2	48.5	100	97	3.0	20	66 - 137
Trichloroethene	UG/KG	50.0	50.0	50.4	50.5	101	101	0.0	20	62 - 138

* Indicate values outside of QC limits

RPD : 0 out of 5 outside limits
Spike Recovery : 0 out of 10 outside limits

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	GVLCS38
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/8/2002 17:27

% MOISTURE :		ANALYST	: ESP
CONTAINER ID :	UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5777.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5 g
TIME ANALYZED	: 9:49		

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	5.0 UG/KG	89 UG/KG	
Benzene	5.0 UG/KG	47 UG/KG	
Chlorobenzene	5.0 UG/KG	48 UG/KG	
Toluene	5.0 UG/KG	53 UG/KG	
Trichloroethene	5.0 UG/KG	49 UG/KG	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	101
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	102
4-Bromofluorobenzene	50 UG/KG	83 - 116	110
Dibromofluoromethane	50 UG/KG	83 - 113	98

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38

PDP Analytical Services

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	GVLCS38D
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	SOLID	PRINTED ON :	1/8/2002 17:27

% MOISTURE :		ANALYST	: ESP
CONTAINER ID :	UL	DATE ANALYZED	: 12/28/2001
DILUTION	: 1	INSTRUMENT FILE	: G5778.D
INSTRUMENT ID	: G-HP5973	SAMPLE WEIGHT	: 5 g
TIME ANALYZED	: 10:20		

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	5.0 UG/KG	54 UG/KG	
Benzene	5.0 UG/KG	46 UG/KG	
Chlorobenzene	5.0 UG/KG	47 UG/KG	
Toluene	5.0 UG/KG	50 UG/KG	
Trichloroethene	5.0 UG/KG	50 UG/KG	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
Toluene-d8	50 UG/KG	85 - 112	102
1,2-Dichloroethane-d4	50 UG/KG	77 - 122	90
4-Bromofluorobenzene	50 UG/KG	83 - 116	101
Dibromofluoromethane	50 UG/KG	83 - 113	90

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK38 PREP BLANK ID :GVBLK38 LCS ID :GVLCS38

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LCS/LCSD SUMMARY REPORT

VOLATILES BY GC/MS

CLIENT NAME :
PROJECT NAME :
PROJECT NUMBER :

DATE RECEIVED :
PRINTED ON :1/8/2002 17:27

SAMPLE MATRIX :SOLID

METHOD REFERENCE :SW846-8260B

LAB CONTROL SAMPLE
LCS SAMPLE ID :GVLCS38
CLIENT SAMPLE ID :
DATE ANALYZED :12/28/2001
INSTRUMENT FILE :G5777.D

LAB CONTROL SAMPLE DUPLICATE
LCSD SAMPLE ID :GVLCS38D
CLIENT SAMPLE ID :
DATE ANALYZED :12/28/2001
INSTRUMENT FILE : G5778.D

PARAMETER	UNITS	LCS TRUE VALUE	LCSD TRUE VALUE	LCS FOUND VALUE	LCSD FOUND VALUE	LCS RECOVER (%)	LCSD RECOVERY (%)	RPD	RPD LIMIT	QC LIMIT REC.
1,1-Dichloroethene	UG/KG	50.0	50.0	88.9	54.5	178 *	109	48.1 *	20	62 - 136
Benzene	UG/KG	50.0	50.0	47.5	46.1	95	92	3.2	20	69 - 130
Chlorobenzene	UG/KG	50.0	50.0	48.5	46.9	97	94	3.1	20	72 - 112
Toluene	UG/KG	50.0	50.0	52.6	50.0	105	100	4.9	20	66 - 137
Trichloroethene	UG/KG	50.0	50.0	48.7	49.8	97	100	3.0	20	62 - 138

* Indicate values outside of QC limits

RPD : 1 out of 5 outside limits
Spike Recovery : 1 out of 10 outside limits

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	:	CLIENT SAMPLE ID	: Lab Control Sample
PROJECT NAME	:	LAB SAMPLE ID	: FVLCS53
PROJECT NUMBER	:	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	:	DATE RECEIVED	:
SAMPLE MATRIX	: LIQUID	PRINTED ON	: 1/8/2002 18:12

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 12/31/2001	DILUTION	: 1
INSTRUMENT FILE	: F9109.D	INSTRUMENT ID	: F-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 18:50

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	1.0 UG/L	10 UG/L	
Benzene	1.0 UG/L	10 UG/L	
Chlorobenzene	1.0 UG/L	9.9 UG/L	
Toluene	1.0 UG/L	9.6 UG/L	
Trichloroethene	1.0 UG/L	9.7 UG/L	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	93
Dibromofluoromethane	10 UG/L	56 - 153	100
Toluene-d8	10 UG/L	68 - 124	95
1,2-Dichloroethane-d4	10 UG/L	64 - 130	103

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID : FVBLK53 PREP BLANK ID : FVBLK53

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	FVLCS53D
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/8/2002 18:12

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 12/31/2001	DILUTION	: 1
INSTRUMENT FILE	: F9110.D	INSTRUMENT ID	: F-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 19:20

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	1.0 UG/L	11 UG/L	
Benzene	1.0 UG/L	11 UG/L	
Chlorobenzene	1.0 UG/L	10 UG/L	
Toluene	1.0 UG/L	10 UG/L	
Trichloroethene	1.0 UG/L	10 UG/L	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	94
Dibromofluoromethane	10 UG/L	56 - 153	102
Toluene-d8	10 UG/L	68 - 124	97
1,2-Dichloroethane-d4	10 UG/L	64 - 130	102

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID : FVBLK53 PREP BLANK ID : FVBLK53 LCS ID : FVLCS53

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LCS/LCSD SUMMARY REPORT

VOLATILES BY GC/MS

CLIENT NAME :
PROJECT NAME :
PROJECT NUMBER :

DATE RECEIVED :
PRINTED ON : 1/8/2002 18:12

SAMPLE MATRIX : LIQUID

METHOD REFERENCE : SW846-8260B

LAB CONTROL SAMPLE

LCS SAMPLE ID : FVLCS53
CLIENT SAMPLE ID :
DATE ANALYZED : 12/31/2001
INSTRUMENT FILE : F9109.D

LAB CONTROL SAMPLE DUPLICATE

LCSD SAMPLE ID : FVLCS53D
CLIENT SAMPLE ID :
DATE ANALYZED : 12/31/2001
INSTRUMENT FILE : F9110.D

PARAMETER	UNITS	LCS TRUE VALUE	LCSD TRUE VALUE	LCS FOUND VALUE	LCSD FOUND VALUE	LCS RECOVER (%)	LCSD RECOVERY (%)	RPD	RPD LIMIT	QC LIMIT REC.
1,1-Dichloroethene	UG/L	10.0	10.0	10.0	10.8	100	108	7.7	20	64 - 132
Benzene	UG/L	10.0	10.0	10.5	10.9	105	109	3.7	20	74 - 131
Chlorobenzene	UG/L	10.0	10.0	9.88	10.4	99	104	4.9	20	81 - 126
Toluene	UG/L	10.0	10.0	9.62	10.1	96	101	5.1	20	62 - 162
Trichloroethene	UG/L	10.0	10.0	9.67	10.2	97	102	5.0	20	67 - 132

* Indicate values outside of QC limits

RPD : 0 out of 5 outside limits
Spike Recovery : 0 out of 10 outside limits

END OF REPORT

TOTAL NUMBER OF PAGES: 64

PDP
Analytical Services

1680 Lake Front Circle, Suite B
The Woodlands, Texas 77380
Phone (281) 363-2233
Fax (281) 298-5784
e-mail pdp@pdpanalytical.com

January 5, 2002

Mr. Greg Watterson
MEVATEC Corporation
P.O. Box 399
Bldg. 126
WSMR, NM 88002

Episode: 7398
Project ID: 800-A9

Dear Mr. Watterson:

Enclosed are the analytical results for the samples received in our laboratory on December 14th, 2001. The samples were analyzed for the parameters indicated on the Chain-of-Custody (COC).

Please note that if a sample concentration exceeds the linear range of the detector, the value is flagged with the appropriate "E", "J" qualifiers to indicate an estimated concentration. A subsequent dilution is performed on the sample and both the original analysis and the dilution(s) are provided for your review.

It should also be noted that, upon occasion, the surrogate recoveries for the samples may be outside acceptance limits due to the nature of the sample. Those samples were reanalyzed for nonconformances. If the Laboratory Control Spike (LCS) recovery meets acceptance criteria, then the analytical system is deemed to be in control and the data is accepted.

Please be advised that unused portions of your samples, sample extracts and digestates will be stored for 30 days from the date of this report. Unless prior arrangements were made, at the end of this period your samples will either be disposed of, or returned to you if your samples were determined to be hazardous.

Should you have any questions or need assistance with this report, please feel free to call me, at (281) 363-2233.

Sincerely,

Dr. Siva S Palchuru, Ph.D.
Laboratory Director

Enclosures
cc: Episode File – 7398

CHAIN OF CUSTODY

PDP PO#: will call + give #

MEVATEC CORPORATION
P.O. Box 399
Bldg. 126
WSMR, NM 88002
(505) 678-0263

CHAIN OF CUSTODY RECORD

PROJECT NO.: 800A9

PROJECT NAME: HWSF Evaporation Tank

SAMPLER'S SIGNATURE: [signature]

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	VOC (8260)	PH (EPA 150.1)	TDS (EPA 160.1)	Specific Conductivity (EPA 120.1)							REMARKS
12/12/01	1342	HWSF-TW Ø3-12Ø1	Aqueous		4	X	X	X	X							
12/12/01	1342	HWSF-TWØ3-12Ø1	Aqueous		3	X										Trip Blank
12/12/01	1532	HWSF-TWØ1-12Ø1	Aqueous		4	X	X	X	X							
12/12/01		Temp Blank			1											Temp Blank

PROJECT INFORMATION			1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER: William Little	SAMPLES RECEIVED		(PRINTED NAME) Greg Watterson	(PRINTED NAME)	(PRINTED NAME)
SHIPPING ID. NO.	TOTAL NO. OF CONTAINERS		RECEIVED BY:	RECEIVED BY: John	(COMPANY)
VIA: FedEx	CHAIN OF CUSTODY SEALS		(TIME / DATE)	(TIME / DATE) 10:30 12/14/01	(TIME / DATE)
	GOOD CONDITION/CHILLED		SPECIAL INSTRUCTIONS / COMMENTS:		
	CONFORMS TO RECORD				

PLEASE USE BALL POINT PEN

DISTRIBUTION: WHITE - PROJECT FILES; YELLOW - LAB; PINK - FIELD COPY

PDP ANALYTICAL SERVICES 1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

SAMPLE LOG-IN CHECKLIST/DISCREPANCY REPORT

FID: SLCDR01.96

EPISODE #: 7398 DATE/ REC'D: 12/14/01 TIME 12.00 TEMP & ID: 1) 3.5 °C #

CLIENT NAME: MevaTeC 2) #

PROJECT NAME: HWSF Evaporation Tank 3) #

PROJECT NUMBER: 800 Ag 4) #

3 AQUEOUS, # SOIL SAMPLES 5) #

COURIER/AIRBILL # FedEx 6) #

SAMPLE CONTAINER SEALS: present absent intact broken

COOLER CUSTODY SEALS: present absent intact broken NAME & DATE: 12/13/01

HOW MANY AND WHERE 2 on cooler

	YES
Were samples screened for radioactivity?	✓
Chain-of-custody present?	✓
Custody documents: Sealed in a plastic bag?	✓
Signed and dated by field personnel	✓
Filled out properly in indelable ink?	✓
Signed and dated by log-in personnel?	✓
Container Condition: Each containers sealed in a separate plastic bag?	✓
Labels complete (ID, date, time, signature, preservative, etc.)?	✓
Labels agree with chain-of-custody?	✓
Received without leakage or breakage? If no, list :	✓
Correct quantity indicated on chain-of-custody?	✓
Sample Integrity: Correct containers used for the test indicated? If no, list:	✓
Correct preservatives added to the samples? If no, list:	•
Sufficient sample amount sent for the tests indicated? If no, list	✓
VOA vials filled completely? If no, list:	✓
Aqueous volatiles samples preserved? If no, list:	✓

Descrepancy Report:

Discepancies to be discussed with the client?

Project Manager's recommendations?

Who was notified? By whom? Date:

Client's comments:

Corrective actions carried out?

COMMENTS:

For those short holding time and fast turn-around parameters, has a Rush Notification sheet been issued to the lab? 0000003

LOG-IN BY: John DATE: 12/14/01

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands TX 77380
Sample Log-In Report

Logged By: SP

Report Date: 1/5/2002 14:14:27

Client Name: MEVATEC CORPORATION
Client Project Name: HWSF EVAPORATION TANK
ClientProject #: 800A9
P.O. No.: 01P-2055
Courier/No.:

Lab Project ID: Q1702
Date Logged: 12/16/01
Date Received: 12/14/01
Time Received: 10:30

Lab Sample ID	Client Sample ID	No. Cont.	Sample Matrix	Date Sampled	Time Sampled	Chain Of Custody No.	Date Due	Remarks
7398.001	HWSF-TW03-1201	4	WATER	12/12/01	13:42	7398		
	Tests Required							
	- CONDUCTIVITY_120.1						01/04/02	
	- PH_150.1						01/04/02	
	- TDS_160.1						01/04/02	
	- VOA8260B						01/04/02	
7398.002	HWSF-TW03-1201-TB	3	WATER	12/12/01	13:42	7398		
	Tests Required							
	- VOA8260B						01/04/02	
7398.003	HWSF-TW01-1201	4	WATER	12/12/01	15:32	7398		
	Tests Required							
	- CONDUCTIVITY_120.1						01/04/02	
	- PH_150.1						01/04/02	
	- TDS_160.1						01/04/02	
	- VOA8260B						01/04/02	

Instructions To Lab:

Lab Approval

Client Approval

0000004

CONDUCTIVITY

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

SPECIFIC CONDUCTANCE

CLIENT NAME : MEVATEC CORPORATION
PROJECT NAME : HWSF EVAPORATION TANK
PROJECT NUMBER : 800A9
PRINTED ON : 12/20/2001 12:16

PARAMETER: Conductivity

CLIENT SAMPLE ID	HWSF-TW03-1201	HWSF-TW01-1201	HWSF-TW03-1201DUP	LAB CONTROL SAMP
SAMPLE ID	7398.001	7398.003	7398.001DUP1	LCSW 30
SAMPLE MATRIX	WATER	WATER	WATER	
DATE SAMPLED	12/12/01	12/12/01	12/12/01	
DATE RECEIVED	12/14/01	12/14/01	12/14/01	
METHOD REFERENCE	EPA-120.1	EPA-120.1	EPA-120.1	EPA-120.1
QUANTITATION LIMIT	1	1	1	1
RESULTS	27200	28000	27000	100
UNITS	US/CM	US/CM	US/CM	UMHO/CM
QUALIFIER				
ANALYST	HT	HT	HT	HT
CONTAINER ID				
DATE ANALYZED	12/17/01	12/17/01	12/17/01	12/17/01
TIME ANALYZED	09:00	09:00	09:00	09:00
QC BATCH ID	PBW 30	PBW 30	PBW 30	PBW 30
PRE-PREP BLANK ID				
PREP BLANK ID	PBW 30	PBW 30	PBW 30	PBW 30
LCS ID	LCSW 30	LCSW 30	LCSW 30	
LCSD ID				
DUP ID	7398.001DUP1	7398.001DUP1	7398.001DUP1	

PDP Analytical Services

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LABORATORY REPORT

SPECIFIC CONDUCTANCE

CLIENT NAME : MEVATEC CORPORATION
PROJECT NAME : HWSF EVAPORATION TANK

PROJECT NUMBER : 800A9
PRINTED ON : 12/20/2001 12:17

PARAMETER: Conductivity

CLIENT SAMPLE ID	**PREP BLANK**			
SAMPLE ID	**PBW 30**			
SAMPLE MATRIX				
DATE SAMPLED				
DATE RECEIVED				
METHOD REFERENCE	EPA-120.1			
QUANTITATION LIMIT	1			
RESULTS	ND			
UNITS	US/CM			
QUALIFIER				
ANALYST	HT			
CONTAINER ID				
DATE ANALYZED	12/17/01			
TIME ANALYZED	09:00			
QC BATCH ID	PBW 30			
PRE-PREP BLANK ID				
PREP BLANK ID	PBW 30			
LCS ID				
LCSD ID				
DUP ID				

PDP Analytical Services

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DUPLICATE SUMMARY REPORT

SPECIFIC CONDUCTANCE

CLIENT NAME	: MEVATEC CORPORATION	DATE RECEIVED	: 12/14/01
PROJECT NAME	: HWSF EVAPORATION TANK	PRINTED ON	: 12/20/2001
PROJECT NUMBER	: 800A9		
SAMPLE MATRIX	: WATER	METHOD REFERENCE	: EPA-120.1
SAMPLE		SAMPLE DUPLICATE	
SAMPLE ID	:	DUP SAMPLE ID	: 7398.001DUP1
CLIENT SAMPLE ID	: HWSF-TW03-1201	CLIENT SAMPLE ID	: HWSF-TW03-1201DUP
DATE ANALYZED	: 12/17/01	DATE ANALYZED	: 12/17/01
GC FILE ID	:	INSTRUMENT FILE	:

COMPOUND	SAMPLE CONC.	DUP. CONC.	UNITS	RPD	RPD LIMITS
Conductivity	27200	27000	US/CM	0.7	20

* Indicate values outside of QC limits

RPD : 0 out of 1 outside limits

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LCS/LCSD SUMMARY REPORT

SPECIFIC CONDUCTANCE

CLIENT NAME :
PROJECT NAME :
PROJECT NUMBER :

DATE RECEIVED :
PRINTED ON : 12/20/2001 12:16

SAMPLE MATRIX : LIQUID
METHOD REFERENCE : EPA-120.1

LAB CONTROL SAMPLE
LCS SAMPLE ID : LCSW 30
CLIENT SAMPLE ID :
DATE ANALYZED : 12/17/01
INSTRUMENT FILE :

LAB CONTROL SAMPLE DUPLICATE
LCSD SAMPLE ID :
CLIENT SAMPLE ID :
DATE ANALYZED :
INSTRUMENT FILE :

PARAMETER	UNITS	LCS TRUE VALUE	LCSD TRUE VALUE	LCS FOUND VALUE	LCSD FOUND VALUE	LCS RECOVER (%)	LCSD RECOVERY (%)	RPD	RPD LIMIT	QC LIMIT REC.
Conductivity	UMHO/	100		100		100			20	80 - 120

* Indicate values outside of QC limits

RPD : 0 out of 0 outside limits
Spike Recovery : 0 out of 1 outside limits

pH

PDP Analytical Services

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LABORATORY REPORT

pH

CLIENT NAME : MEVATEC CORPORATION
PROJECT NAME : HWSF EVAPORATION TANK

PROJECT NUMBER : 800A9
PRINTED ON : 12/17/2001 12:12

PARAMETER: pH

CLIENT SAMPLE ID	HWSF-TW03-1201	HWSF-TW01-1201	HWSF-TW03-1201DUP	LAB CONTROL SAMP
SAMPLE ID	7398.001	7398.003	7398.001DUP1	LCSW 138
SAMPLE MATRIX	WATER	WATER	WATER	
DATE SAMPLED	12/12/01	12/12/01	12/12/01	
DATE RECEIVED	12/14/01	12/14/01	12/14/01	
METHOD REFERENCE	EPA-150.1	EPA-150.1	EPA-150.1	EPA-150.1
QUANTITATION LIMIT	0	0	0	0
RESULTS	6.87	6.97	6.88	8.93
UNITS	UNITS	UNITS	UNITS	UNITS
QUALIFIER				
ANALYST	HT	HT	HT	HT
CONTAINER ID				
DATE ANALYZED	12/17/01	12/17/01	12/17/01	12/17/01
QC BATCH ID	PBW 141	PBW 141	PBW 141	PBW 141
PRE-PREP BLANK ID				
PREP BLANK ID	PBW 141	PBW 141	PBW 141	PBW 141
LCS ID	LCSW 138	LCSW 138	LCSW 138	
LCSD ID				
DUP ID	7398.001DUP1	7398.001DUP1	7398.001DUP1	

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LABORATORY REPORT

pH

CLIENT NAME	:	MEVATEC CORPORATION	PROJECT NUMBER	:	800A9
PROJECT NAME	:	HWSF EVAPORATION TANK	PRINTED ON	:	12/17/2001 12:12

PARAMETER: pH

CLIENT SAMPLE ID	**PREP BLANK**			
SAMPLE ID	**PBW 141**			
SAMPLE MATRIX				
DATE SAMPLED				
DATE RECEIVED				
METHOD REFERENCE	EPA-150.1			
QUANTITATION LIMIT	0			
RESULTS	6.50			
UNITS	UNITS			
QUALIFIER				
ANALYST	HT			
CONTAINER ID				
DATE ANALYZED	12/17/01			
QC BATCH ID	PBW 141			
PRE-PREP BLANK ID				
PREP BLANK ID	PBW 141			
LCS ID				
LCSD ID				
DUP ID				

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

DUPLICATE SUMMARY REPORT

pH

CLIENT NAME	: MEVATEC CORPORATION	DATE RECEIVED	: 12/14/01
PROJECT NAME	: HWSF EVAPORATION TANK	PRINTED ON	: 12/17/2001
PROJECT NUMBER	: 800A9		
SAMPLE MATRIX	: WATER	METHOD REFERENCE	: EPA-150.1
SAMPLE		SAMPLE DUPLICATE	
SAMPLE ID	:	DUP SAMPLE ID	: 7398.001DUP1
CLIENT SAMPLE ID	: HWSF-TW03-1201	CLIENT SAMPLE ID	: HWSF-TW03-1201DUP
DATE ANALYZED	: 12/17/01	DATE ANALYZED	: 12/17/01
GC FILE ID	:	INSTRUMENT FILE	:

COMPOUND	SAMPLE CONC.	DUP. CONC.	UNITS	RPD	RPD LIMITS
pH	6.87	6.88	UNITS	0.1	20

* Indicate values outside of QC limits

RPD : 0 out of 1 outside limits

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LCS/LCSD SUMMARY REPORT

pH

CLIENT NAME :
PROJECT NAME :
PROJECT NUMBER :

DATE RECEIVED :
PRINTED ON : 12/17/2001 12:12

SAMPLE MATRIX : LIQUID

METHOD REFERENCE : EPA-150.1

LAB CONTROL SAMPLE

LCS SAMPLE ID : LCSW 138
CLIENT SAMPLE ID :
DATE ANALYZED : 12/17/01
INSTRUMENT FILE :

LAB CONTROL SAMPLE DUPLICATE

LCSD SAMPLE ID :
CLIENT SAMPLE ID :
DATE ANALYZED :
INSTRUMENT FILE :

PARAMETER	UNITS	LCS TRUE VALUE	LCSD TRUE VALUE	LCS FOUND VALUE	LCSD FOUND VALUE	LCS RECOVER (%)	LCSD RECOVERY (%)	RPD	RPD LIMIT	QC LIMIT REC.
pH	UNITS	9.00		8.93		99			0	98 - 102

* Indicate values outside of QC limits

RPD : 0 out of 0 outside limits
Spike Recovery : 0 out of 1 outside limits

TOTAL DISSOLVED SOLIDS(TDS)

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

TOTAL DISSOLVED SOLIDS (TDS)

CLIENT NAME : MEVATEC CORPORATION
PROJECT NAME : HWSF EVAPORATION TANK
PROJECT NUMBER : 800A9
PRINTED ON : 12/20/2001 12:15

PARAMETER: Total Dissolved Solids

CLIENT SAMPLE ID	HWSF-TW03-1201	HWSF-TW01-1201	HWSF-TW03-1201DUP	LAB CONTROL SAMP
SAMPLE ID	7398.001	7398.003	7398.001DUP1	LCSW 84
SAMPLE MATRIX	WATER	WATER	WATER	
DATE SAMPLED	12/12/01	12/12/01	12/12/01	
DATE RECEIVED	12/14/01	12/14/01	12/14/01	
METHOD REFERENCE	EPA-160.1	EPA-160.1	EPA-160.1	EPA-160.1
QUANTITATION LIMIT	10	10	10	10
RESULTS	18000	17000	18000	500
UNITS	MG/L	MG/L	MG/L	MG/L
QUALIFIER				
ANALYST	FC	FC	FC	FC
CONTAINER ID				
DATE ANALYZED	12/19/01	12/19/01	12/19/01	12/19/01
QC BATCH ID	PBW 84	PBW 84	PBW 84	PBW 84
PRE-PREP BLANK ID				
PREP BLANK ID	PBW 84	PBW 84	PBW 84	PBW 84
LCS ID	LCSW 84	LCSW 84	LCSW 84	
LCSD ID				
DUP ID	7398.001DUP1	7398.001DUP1	7398.001DUP1	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

TOTAL DISSOLVED SOLIDS (TDS)

CLIENT NAME : MEVATEC CORPORATION PROJECT NUMBER : 800A9

PROJECT NAME : HWSF EVAPORATION TANK PRINTED ON : 12/20/2001 12:15

PARAMETER: Total Dissolved Solids

CLIENT SAMPLE ID	**PREP BLANK**			
SAMPLE ID	**PBW 84**			
SAMPLE MATRIX				
DATE SAMPLED				
DATE RECEIVED				
METHOD REFERENCE	EPA-160.1			
QUANTITATION LIMIT	10			
RESULTS	ND			
UNITS	MG/L			
QUALIFIER				
ANALYST	FC			
CONTAINER ID				
DATE ANALYZED	12/19/01			
QC BATCH ID	PBW 84			
PRE-PREP BLANK ID				
PREP BLANK ID	PBW 84			
LCS ID				
LCSD ID				
DUP ID				

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

DUPLICATE SUMMARY REPORT

TOTAL DISSOLVED SOLIDS (TDS)

CLIENT NAME	: MEVATEC CORPORATION	DATE RECEIVED	: 12/14/01
PROJECT NAME	: HWSF EVAPORATION TANK	PRINTED ON	: 12/20/2001
PROJECT NUMBER	: 800A9		
SAMPLE MATRIX	: WATER	METHOD REFERENCE	: EPA-160.1
SAMPLE		SAMPLE DUPLICATE	
SAMPLE ID	:	DUP SAMPLE ID	: 7398.001DUP1
CLIENT SAMPLE ID	: HWSF-TW03-1201	CLIENT SAMPLE ID	: HWSF-TW03-1201DUP
DATE ANALYZED	: 12/19/01	DATE ANALYZED	: 12/19/01
GC FILE ID	:	INSTRUMENT FILE	:

COMPOUND	SAMPLE CONC.	DUP. CONC.	UNITS	RPD	RPD LIMITS
Total Dissolved Solids	18000	18000	MG/L	0.0	20

* Indicate values outside of QC limits

RPD : 0 out of 1 outside limits

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LCS/LCSD SUMMARY REPORT

TOTAL DISSOLVED SOLIDS (TDS)

CLIENT NAME :
PROJECT NAME :
PROJECT NUMBER :

DATE RECEIVED :
PRINTED ON : 12/20/2001 12:15

SAMPLE MATRIX : LIQUID
METHOD REFERENCE : EPA-160.1

LAB CONTROL SAMPLE
LCS SAMPLE ID : LCSW 84
CLIENT SAMPLE ID :
DATE ANALYZED : 12/19/01
INSTRUMENT FILE :

LAB CONTROL SAMPLE DUPLICATE
LCSD SAMPLE ID :
CLIENT SAMPLE ID :
DATE ANALYZED :
INSTRUMENT FILE :

PARAMETER	UNITS	LCS TRUE VALUE	LCSD TRUE VALUE	LCS FOUND VALUE	LCSD FOUND VALUE	LCS RECOVER (%)	LCSD RECOVERY (%)	RPD	RPD LIMIT	QC LIMIT REC.
Total Dissolved Solids	MG/L	500		500		100			20	80 - 120

* Indicate values outside of QC limits

RPD : 0 out of 0 outside limits
Spike Recovery : 0 out of 1 outside limits

VOA

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW03-1201
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7398.001
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/12/01	DATE RECEIVED :	12/14/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 18:28

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 12/19/2001	DILUTION	: 1
INSTRUMENT FILE	: G5679.D	INSTRUMENT ID	: G-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 18:05

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,1-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1,2,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,2-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethene	1.0	UG/L	ND	UG/L	
1,1-Dichloropropene	1.0	UG/L	ND	UG/L	
1,2,3-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,3-Trichloropropane	1.0	UG/L	ND	UG/L	
1,2,4-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,4-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,2-Dibromo-3-chloropropane	1.0	UG/L	ND	UG/L	
1,2-Dibromoethane	1.0	UG/L	ND	UG/L	
1,2-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,2-Dichloroethane	1.0	UG/L	ND	UG/L	
1,2-Dichloropropane	1.0	UG/L	ND	UG/L	
1,3,5-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,3-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,3-Dichloropropane	1.0	UG/L	ND	UG/L	
1,4-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1-Chlorohexane	1.0	UG/L	ND	UG/L	
2,2-Dichloropropane	1.0	UG/L	ND	UG/L	
2-Butanone	5.0	UG/L	ND	UG/L	
2-Chloroethyl vinyl ether	2.0	UG/L	ND	UG/L	
2-Chlorotoluene	1.0	UG/L	ND	UG/L	
2-Hexanone	5.0	UG/L	ND	UG/L	
4-Chlorotoluene	1.0	UG/L	ND	UG/L	
4-Methyl-2-pentanone	5.0	UG/L	ND	UG/L	
Acetone	5.0	UG/L	ND	UG/L	
Acrolein	5.0	UG/L	ND	UG/L	
Acrylonitrile	1.0	UG/L	ND	UG/L	
Benzene	1.0	UG/L	ND	UG/L	
Bromobenzene	1.0	UG/L	ND	UG/L	
Bromochloromethane	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW03-1201
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7398.001
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/12/01	DATE RECEIVED :	12/14/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 18:28

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	ND	UG/L	
Bromoform	1.0	UG/L	ND	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	ND	UG/L	
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	ND	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	ND	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW03-1201
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7398.001
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/12/01	DATE RECEIVED :	12/14/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 18:28

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	77
Dibromofluoromethane	10 UG/L	56 - 153	96
Toluene-d8	10 UG/L	68 - 124	85
1,2-Dichloroethane-d4	10 UG/L	64 - 130	112

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK33 PREP BLANK ID :GVBLK33 LCS ID :GVLCS33

LCSD ID :GVLCS33D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-TW03-1201-TB
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7398.002
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/12/01	DATE RECEIVED	: 12/14/01
SAMPLE MATRIX	: WATER	PRINTED ON	: 1/4/2002 18:28

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 12/19/2001	DILUTION	: 1
INSTRUMENT FILE	: G5682.D	INSTRUMENT ID	: G-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 19:36

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,1-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1,2,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,2-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethene	1.0	UG/L	ND	UG/L	
1,1-Dichloropropene	1.0	UG/L	ND	UG/L	
1,2,3-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,3-Trichloropropane	1.0	UG/L	ND	UG/L	
1,2,4-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,4-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,2-Dibromo-3-chloropropane	1.0	UG/L	ND	UG/L	
1,2-Dibromoethane	1.0	UG/L	ND	UG/L	
1,2-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,2-Dichloroethane	1.0	UG/L	ND	UG/L	
1,2-Dichloropropane	1.0	UG/L	ND	UG/L	
1,3,5-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,3-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,3-Dichloropropane	1.0	UG/L	ND	UG/L	
1,4-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1-Chlorohexane	1.0	UG/L	ND	UG/L	
2,2-Dichloropropane	1.0	UG/L	ND	UG/L	
2-Butanone	5.0	UG/L	ND	UG/L	
2-Chloroethyl vinyl ether	2.0	UG/L	ND	UG/L	
2-Chlorotoluene	1.0	UG/L	ND	UG/L	
2-Hexanone	5.0	UG/L	ND	UG/L	
4-Chlorotoluene	1.0	UG/L	ND	UG/L	
4-Methyl-2-pentanone	5.0	UG/L	ND	UG/L	
Acetone	5.0	UG/L	ND	UG/L	
Acrolein	5.0	UG/L	ND	UG/L	
Acrylonitrile	1.0	UG/L	ND	UG/L	
Benzene	1.0	UG/L	ND	UG/L	
Bromobenzene	1.0	UG/L	ND	UG/L	
Bromochloromethane	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW03-1201-TB
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7398.002
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/12/01	DATE RECEIVED :	12/14/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 18:28

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	ND	UG/L	
Bromoform	1.0	UG/L	ND	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	ND	UG/L	
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	ND	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	ND	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW03-1201-TB
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7398.002
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/12/01	DATE RECEIVED :	12/14/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 18:28

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	91
Dibromofluoromethane	10 UG/L	56 - 153	108
Toluene-d8	10 UG/L	68 - 124	95
1,2-Dichloroethane-d4	10 UG/L	64 - 130	124

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK33 PREP BLANK ID :GVBLK33 LCS ID :GVLCS33

LCSD ID :GVLCS33D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME	: MEVATEC CORPORATION	CLIENT SAMPLE ID	: HWSF-TW01-1201
PROJECT NAME	: HWSF EVAPORATION TANK	LAB SAMPLE ID	: 7398.003
PROJECT NUMBER	: 800A9	METHOD REFERENCE	: SW846-8260B
DATE SAMPLED	: 12/12/01	DATE RECEIVED	: 12/14/01
SAMPLE MATRIX	: WATER	PRINTED ON	: 1/4/2002 18:28

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 12/19/2001	DILUTION	: 1
INSTRUMENT FILE	: G5681.D	INSTRUMENT ID	: G-HP5973
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 19:05

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,1-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1,2,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,2-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethene	1.0	UG/L	ND	UG/L	
1,1-Dichloropropene	1.0	UG/L	ND	UG/L	
1,2,3-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,3-Trichloropropane	1.0	UG/L	ND	UG/L	
1,2,4-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,4-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,2-Dibromo-3-chloropropane	1.0	UG/L	ND	UG/L	
1,2-Dibromoethane	1.0	UG/L	ND	UG/L	
1,2-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,2-Dichloroethane	1.0	UG/L	ND	UG/L	
1,2-Dichloropropane	1.0	UG/L	ND	UG/L	
1,3,5-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,3-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,3-Dichloropropane	1.0	UG/L	ND	UG/L	
1,4-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1-Chlorohexane	1.0	UG/L	ND	UG/L	
2,2-Dichloropropane	1.0	UG/L	ND	UG/L	
2-Butanone	5.0	UG/L	ND	UG/L	
2-Chloroethyl vinyl ether	2.0	UG/L	ND	UG/L	
2-Chlorotoluene	1.0	UG/L	ND	UG/L	
2-Hexanone	5.0	UG/L	ND	UG/L	
4-Chlorotoluene	1.0	UG/L	ND	UG/L	
4-Methyl-2-pentanone	5.0	UG/L	ND	UG/L	
Acetone	5.0	UG/L	ND	UG/L	
Acrolein	5.0	UG/L	ND	UG/L	
Acrylonitrile	1.0	UG/L	ND	UG/L	
Benzene	1.0	UG/L	ND	UG/L	
Bromobenzene	1.0	UG/L	ND	UG/L	
Bromochloromethane	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW01-1201
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7398.003
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/12/01	DATE RECEIVED :	12/14/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 18:28

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	ND	UG/L	
Bromoform	1.0	UG/L	ND	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	ND	UG/L	
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	ND	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	ND	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :	MEVATEC CORPORATION	CLIENT SAMPLE ID :	HWSF-TW01-1201
PROJECT NAME :	HWSF EVAPORATION TANK	LAB SAMPLE ID :	7398.003
PROJECT NUMBER :	800A9	METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :	12/12/01	DATE RECEIVED :	12/14/01
SAMPLE MATRIX :	WATER	PRINTED ON :	1/4/2002 18:28

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	85
Dibromofluoromethane	10 UG/L	56 - 153	104
Toluene-d8	10 UG/L	68 - 124	88
1,2-Dichloroethane-d4	10 UG/L	64 - 130	120

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK33 PREP BLANK ID :GVBLK33 LCS ID :GVLCS33

LCSD ID :GVLCS33D

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK33
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/4/2002 18:28

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 12/19/2001	DILUTION	: 1
INSTRUMENT FILE	: G5675.D	INSTRUMENT ID	: G-HP5974
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 14:56

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
1,1,1,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,1-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1,2,2-Tetrachloroethane	1.0	UG/L	ND	UG/L	
1,1,2-Trichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethane	1.0	UG/L	ND	UG/L	
1,1-Dichloroethene	1.0	UG/L	ND	UG/L	
1,1-Dichloropropene	1.0	UG/L	ND	UG/L	
1,2,3-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,3-Trichloropropane	1.0	UG/L	ND	UG/L	
1,2,4-Trichlorobenzene	1.0	UG/L	ND	UG/L	
1,2,4-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,2-Dibromo-3-chloropropane	1.0	UG/L	ND	UG/L	
1,2-Dibromoethane	1.0	UG/L	ND	UG/L	
1,2-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,2-Dichloroethane	1.0	UG/L	ND	UG/L	
1,2-Dichloropropane	1.0	UG/L	ND	UG/L	
1,3,5-Trimethylbenzene	1.0	UG/L	ND	UG/L	
1,3-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1,3-Dichloropropane	1.0	UG/L	ND	UG/L	
1,4-Dichlorobenzene	1.0	UG/L	ND	UG/L	
1-Chlorohexane	1.0	UG/L	ND	UG/L	
2,2-Dichloropropane	1.0	UG/L	ND	UG/L	
2-Butanone	5.0	UG/L	ND	UG/L	
2-Chloroethyl vinyl ether	2.0	UG/L	ND	UG/L	
2-Chlorotoluene	1.0	UG/L	ND	UG/L	
2-Hexanone	5.0	UG/L	ND	UG/L	
4-Chlorotoluene	1.0	UG/L	ND	UG/L	
4-Methyl-2-pentanone	5.0	UG/L	ND	UG/L	
Acetone	5.0	UG/L	ND	UG/L	
Acrolein	5.0	UG/L	ND	UG/L	
Acrylonitrile	1.0	UG/L	ND	UG/L	
Benzene	1.0	UG/L	ND	UG/L	
Bromobenzene	1.0	UG/L	ND	UG/L	
Bromochloromethane	1.0	UG/L	ND	UG/L	

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LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK33
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/4/2002 18:28

PARAMETER	QUANTITATION LIMIT		RESULTS		QUALIFIER
Bromodichloromethane	1.0	UG/L	ND	UG/L	
Bromoform	1.0	UG/L	ND	UG/L	
Bromomethane	2.0	UG/L	ND	UG/L	
Carbon disulfide	1.0	UG/L	ND	UG/L	
Carbon tetrachloride	1.0	UG/L	ND	UG/L	
Chlorobenzene	1.0	UG/L	ND	UG/L	
Chloroethane	2.0	UG/L	ND	UG/L	
Chloroform	1.0	UG/L	ND	UG/L	
Chloromethane	2.0	UG/L	ND	UG/L	
cis-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
cis-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Dibromochloromethane	1.0	UG/L	ND	UG/L	
Dibromomethane	1.0	UG/L	ND	UG/L	
Dichlorodifluoromethane	2.0	UG/L	ND	UG/L	
Ethyl benzene	1.0	UG/L	ND	UG/L	
Hexachlorobutadiene	1.0	UG/L	ND	UG/L	
Iodomethane	1.0	UG/L	ND	UG/L	
Isopropylbenzene	1.0	UG/L	ND	UG/L	
Methyl t-Butylether	1.0	UG/L	ND	UG/L	
Methylene chloride	2.0	UG/L	ND	UG/L	
n-Butylbenzene	1.0	UG/L	ND	UG/L	
n-Propylbenzene	1.0	UG/L	ND	UG/L	
Naphthalene	1.0	UG/L	ND	UG/L	
p-Isopropyltoluene	1.0	UG/L	ND	UG/L	
sec-Butylbenzene	1.0	UG/L	ND	UG/L	
Styrene	1.0	UG/L	ND	UG/L	
tert-Butylbenzene	1.0	UG/L	ND	UG/L	
Tetrachloroethene	1.0	UG/L	ND	UG/L	
Toluene	1.0	UG/L	ND	UG/L	
trans-1,2-Dichloroethene	1.0	UG/L	ND	UG/L	
trans-1,3-Dichloropropene	1.0	UG/L	ND	UG/L	
Trichloroethene	1.0	UG/L	ND	UG/L	
Trichlorofluoromethane	1.0	UG/L	ND	UG/L	
Vinyl Acetate	5.0	UG/L	ND	UG/L	
Vinyl chloride	1.0	UG/L	ND	UG/L	
Xylene (total)	1.0	UG/L	ND	UG/L	

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Prep Blank
PROJECT NAME :		LAB SAMPLE ID :	GVBLK33
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/4/2002 18:28

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	85
Dibromofluoromethane	10 UG/L	56 - 153	98
Toluene-d8	10 UG/L	68 - 124	94
1,2-Dichloroethane-d4	10 UG/L	64 - 130	106

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK33 PREP BLANK ID :GVBLK33

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	GVLCS33
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/4/2002 18:28

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 12/19/2001	DILUTION	: 1
INSTRUMENT FILE	: G5672.D	INSTRUMENT ID	: G-HP5974
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 12:53

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	1.0 UG/L	9.7 UG/L	
Benzene	1.0 UG/L	10 UG/L	
Chlorobenzene	1.0 UG/L	10 UG/L	
Toluene	1.0 UG/L	11 UG/L	
Trichloroethene	1.0 UG/L	10 UG/L	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	100
Dibromofluoromethane	10 UG/L	56 - 153	97
Toluene-d8	10 UG/L	68 - 124	93
1,2-Dichloroethane-d4	10 UG/L	64 - 130	109

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK33 PREP BLANK ID :GVBLK33

PDP Analytical Services

1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LABORATORY REPORT

VOLATILES BY GC/MS

CLIENT NAME :		CLIENT SAMPLE ID :	Lab Control Sample
PROJECT NAME :		LAB SAMPLE ID :	GVLCS33D
PROJECT NUMBER :		METHOD REFERENCE :	SW846-8260B
DATE SAMPLED :		DATE RECEIVED :	
SAMPLE MATRIX :	LIQUID	PRINTED ON :	1/4/2002 18:28

ANALYST	: RKG	CONTAINER ID	:
DATE ANALYZED	: 12/19/2001	DILUTION	: 1
INSTRUMENT FILE	: G5673.D	INSTRUMENT ID	: G-HP5974
PURGE VOLUME	: 10 mL	TIME ANALYZED	: 13:24

PARAMETER	QUANTITATION LIMIT	RESULTS	QUALIFIER
1,1-Dichloroethene	1.0 UG/L	10 UG/L	
Benzene	1.0 UG/L	10 UG/L	
Chlorobenzene	1.0 UG/L	10 UG/L	
Toluene	1.0 UG/L	10 UG/L	
Trichloroethene	1.0 UG/L	10 UG/L	

QUALITY CONTROL DATA

SURROGATE COMPOUND	SPIKE ADDED	QC RECOVERY LIMITS	%RECOVERY
4-Bromofluorobenzene	10 UG/L	72 - 137	101
Dibromofluoromethane	10 UG/L	56 - 153	99
Toluene-d8	10 UG/L	68 - 124	95
1,2-Dichloroethane-d4	10 UG/L	64 - 130	113

BATCH QUALITY CONTROL SAMPLE IDs

QC BATCH ID :GVBLK33 PREP BLANK ID :GVBLK33 LCS ID :GVLCS33

PDP Analytical Services
1680 Lake Front Circle, Suite B, The Woodlands, TX 77380

LCS/LCSD SUMMARY REPORT

VOLATILES BY GC/MS

CLIENT NAME :
PROJECT NAME :
PROJECT NUMBER :

DATE RECEIVED :
PRINTED ON : 1/4/2002 18:28

SAMPLE MATRIX : LIQUID

METHOD REFERENCE : SW846-8260B

LAB CONTROL SAMPLE

LCS SAMPLE ID : GVLCS33
CLIENT SAMPLE ID :
DATE ANALYZED : 12/19/2001
INSTRUMENT FILE : G5672.D

LAB CONTROL SAMPLE DUPLICATE

LCSD SAMPLE ID : GVLCS33D
CLIENT SAMPLE ID :
DATE ANALYZED : 12/19/2001
INSTRUMENT FILE : G5673.D

PARAMETER	UNITS	LCS TRUE VALUE	LCSD TRUE VALUE	LCS FOUND VALUE	LCSD FOUND VALUE	LCS RECOVER (%)	LCSD RECOVERY (%)	RPD	RPD LIMIT	QC LIMIT REC.
1,1-Dichloroethene	UG/L	10.0	10.0	9.73	10.1	97	101	4.0	20	64 - 132
Benzene	UG/L	10.0	10.0	10.1	10.1	101	101	0.0	20	74 - 131
Chlorobenzene	UG/L	10.0	10.0	10.2	10.0	102	100	2.0	20	81 - 126
Toluene	UG/L	10.0	10.0	10.6	10.4	106	104	1.9	20	62 - 162
Trichloroethene	UG/L	10.0	10.0	10.4	10.2	104	102	1.9	20	67 - 132

* Indicate values outside of QC limits

RPD : 0 out of 5 outside limits
Spike Recovery : 0 out of 10 outside limits

END OF REPORT

TOTAL NUMBER OF PAGES: 36

APPENDIX J

Analytical Data – Assaigai Analytical Laboratories, Inc.

ASSAIGAI
ANALYTICAL
LABORATORIES, INC.
7300 Jefferson, NE • Albuquerque, New Mexico 87109 • (505) 345-8964 • FAX (505) 345-7259
3332 Wedgewood Dr., Suite N • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820
127 Eastgate Drive, 212-C • Los Alamos, New Mexico 87544 • (505) 662-2558

Explanation of codes	
B	analyte detected in Method Blank
E	result is estimated
H	analyzed out of hold time
N	tentatively identified compound
S	subcontracted
1-9	see footnote

MEVATEC CORPORATION
attn: **WILLIAM LITTLE**
PO BOX 399, BLDG 126
WSMR NM 88002

STANDARD

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

ORIGINAL

Client: **MEVATEC CORPORATION**
Project: **HWSF EVAPORATION TANK**
Order: **0112364** **MEVA1E** Receipt: **12-20-01**

William P. Biava: President of Assaigai Analytical Laboratories, Inc.

Sample: ***HWSF-SB10-(11.0-12.0)-QA*** Collected: *12-17-01 14:50:00* By: *GW*
Matrix: ***SOIL***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0112364-01A		**SW846 8260B Purgeable VOCs by GC/MS**					By:	JAA		
X01536	XG.2002.15.2	75-34-3	1,1 Dichloroethane	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	75-34-3	1,1 Dichloroethene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	71-55-6	1,1,1 Trichloroethane	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	630-20-6	1,1,1,2 Tetrachloroethane	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	79-00-5	1,1,2 Trichloroethane	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	79-34-5	1,1,2,2 Tetrachloroethane	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	106-93-4	1,2 Dibromoethane (EDB)	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	95-50-1	1,2 Dichlorobenzene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	107-06-2	1,2 Dichloroethane (EDC)	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	78-87-5	1,2 Dichloropropane	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	96-18-4	1,2,3 Trichloropropane	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	95-63-6	1,2,4-Trimethylbenzene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	541-73-1	1,3 Dichlorobenzene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	108-67-8	1,3,5-Trimethylbenzene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	764-41-0	1,4 Dichloro-2-butene	ND	mg / Kg	1	0.05		12-28-01	12-28-01
X01536	XG.2002.15.2	106-46-7	1,4 Dichlorobenzene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	90-12-0	1-Methylnaphthalene	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.2	78-93-3	2-Butanone (MEK)	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.2	110-75-8	2-Chloroethylvinylether	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.2	591-78-6	2-Hexanone (MBK)	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.2	91-57-6	2-Methylnaphthalene	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.2	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	mg / Kg	1	0.025		12-28-01	12-28-01
536	XG.2002.15.2	67-64-1	Acetone	ND	mg / Kg	1	0.05		12-28-01	12-28-01
X01536	XG.2002.15.2	107-02-8	Acrolein	ND	mg / Kg	1	0.1		12-28-01	12-28-01

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Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

ORIGINAL

Client: **MEVATEC CORPORATION**

Project: **HWSF EVAPORATION TANK**

Order: **0112364** **MEVA1E** Receipt: **12-20-01**

Sample: ***HWSF-SB10-(11.0-12.0)-QA*** Collected: *12-17-01 14:50:00* By: *GW*

Matrix: ***SOIL***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0112364-01A		**SW846 8260B Purgeable VOCs by GC/MS**					By:	JAA		
X01536	XG.2002.15.2	107-13-1	Acrylonitrile	ND	mg / Kg	1	0.1		12-28-01	12-28-01
X01536	XG.2002.15.2	71-43-2	Benzene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	75-27-4	Bromodichloromethane	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	75-25-2	Bromoform	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	74-83-9	Bromomethane	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.2	75-15-0	Carbon disulfide	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.2	56-23-5	Carbon tetrachloride	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	108-90-7	Chlorobenzene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	124-48-1	Chlorodibromomethane	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	75-00-3	Chloroethane	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.2	67-66-3	Chloroform	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	74-87-3	Chloromethane	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.2	156-59-2	cis-1,2 dichloroethene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	10061-01-5	cis-1,3 dichloropropene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	74-95-3	Dibromomethane	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	97-63-2	Ethyl methacrylate	ND	mg / Kg	1	0.025		12-28-01	1
X01536	XG.2002.15.2	100-41-4	Ethylbenzene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2		Freon 113	ND	mg / Kg	1	0.035		12-28-01	12-28-01
X01536	XG.2002.15.2	75-71-8	Freon 12	ND	mg / Kg	1	0.05		12-28-01	12-28-01
X01536	XG.2002.15.2	74-88-4	Iodomethane	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.2	1634-04-4	Methyl t-butyl ether (MTBE)	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	75-09-2	Methylene chloride	ND	mg / Kg	1	0.05		12-28-01	12-28-01
X01536	XG.2002.15.2	91-20-3	Naphthalene	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.2	95-47-6	o-Xylene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	108-38-3/106-42	p/m Xylenes	ND	mg / Kg	1	0.01		12-28-01	12-28-01
X01536	XG.2002.15.2	100-42-5	Styrene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	156-60-5	t-1,2 Dichloroethene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	10061-02-6	t-1,3 Dichloropropene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	127-18-4	Tetrachloroethene (PCE)	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	108-88-3	Toluene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	79-01-6	Trichloroethene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.2	75-69-4	Trichlorofluoromethane	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.2	108-05-4	Vinyl acetate	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.2	75-01-4	Vinyl chloride	ND	mg / Kg	1	0.01		12-28-01	12-28-01

Sample: ***HWSF-TB-01-QA*** Collected: *12-17-01 15:42:00* By: *GW*

Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0112364-02A		**SW846 8260B Purgeable VOCs by GC/MS**					By:	JAA		
X01549	XG.2002.7.8	75-34-3	1,1 Dichloroethane	ND	ug / L	1	1		12-28-01	12-28-01

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

ORIGINAL

Client: **MEVATEC CORPORATION**
ɜct: **HWSF EVAPORATION TANK**
Order: **0112364** **MEVA1E** Receipt: **12-20-01**

Sample: ***HWSF-TB-01-QA*** Collected: *12-17-01 15:42:00* By: *GW*
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0112364-02A		**SW846 8260B Purgeable VOCs by GC/MS**					By:	JAA		
X01549	XG.2002.7.8	75-34-3	1,1 Dichloroethene	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	71-55-6	1,1,1 Trichloroethane	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	79-00-5	1,1,2 Trichloroethane	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	95-50-1	1,2 Dichlorobenzene	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	78-87-5	1,2 Dichloropropane	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	96-18-4	1,2,3 Trichloropropane	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	95-63-6	1,2,4-Trimethylbenzene	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	541-73-1	1,3 Dichlorobenzene	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	108-67-8	1,3,5-Trimethylbenzene	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	764-41-0	1,4 Dichloro-2-butene	ND	ug / L	1	10		12-28-01	12-28-01
X01549	XG.2002.7.8	106-46-7	1,4 Dichlorobenzene	ND	ug / L	1	1		12-28-01	12-28-01
˜49	XG.2002.7.8	90-12-0	1-Methylnaphthalene	ND	ug / L	1	5		12-28-01	12-28-01
,49	XG.2002.7.8	78-93-3	2-Butanone (MEK)	ND	ug / L	1	5		12-28-01	12-28-01
X01549	XG.2002.7.8	110-75-8	2-Chloroethylvinylether	ND	ug / L	1	5		12-28-01	12-28-01
X01549	XG.2002.7.8	591-78-6	2-Hexanone (MBK)	ND	ug / L	1	5		12-28-01	12-28-01
X01549	XG.2002.7.8	91-57-6	2-Methylnaphthalene	ND	ug / L	1	5		12-28-01	12-28-01
X01549	XG.2002.7.8	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L	1	5		12-28-01	12-28-01
X01549	XG.2002.7.8	67-64-1	Acetone	ND	ug / L	1	10		12-28-01	12-28-01
X01549	XG.2002.7.8	107-02-8	Acrolein	ND	ug / L	1	20		12-28-01	12-28-01
X01549	XG.2002.7.8	107-13-1	Acrylonitrile	ND	ug / L	1	20		12-28-01	12-28-01
X01549	XG.2002.7.8	71-43-2	Benzene	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	75-27-4	Bromodichloromethane	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	75-25-2	Bromoform	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	74-83-9	Bromomethane	ND	ug / L	1	5		12-28-01	12-28-01
X01549	XG.2002.7.8	75-15-0	Carbon disulfide	ND	ug / L	1	5		12-28-01	12-28-01
X01549	XG.2002.7.8	56-23-5	Carbon tetrachloride	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	108-90-7	Chlorobenzene	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	124-48-1	Chlorodibromomethane	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	75-00-3	Chloroethane	ND	ug / L	1	5		12-28-01	12-28-01
X01549	XG.2002.7.8	67-66-3	Chloroform	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	74-87-3	Chloromethane	ND	ug / L	1	5		12-28-01	12-28-01
X01549	XG.2002.7.8	156-59-2	cis-1,2 dichloroethene	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	10061-01-5	cis-1,3 dichloropropene	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	74-95-3	Dibromomethane	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	97-63-2	Ethyl methacrylate	ND	ug / L	1	5		12-28-01	12-28-01
X01549	XG.2002.7.8	100-41-4	Ethylbenzene	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8		Freon 113	ND	ug / L	1	5		12-28-01	12-28-01
49	XG.2002.7.8	75-71-8	Freon 12	ND	ug / L	1	10		12-28-01	12-28-01
549	XG.2002.7.8	74-88-4	Iodomethane	ND	ug / L	1	5		12-28-01	12-28-01

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Certificate of Analysis

ORIGINAL

Client: **MEVATEC CORPORATION**
Project: **HWSF EVAPORATION TANK**
Order: **0112364** **MEVA1E** Receipt: **12-20-01**

Sample: ***HWSF-TB-01-QA*** Collected: *12-17-01 15:42:00* By: *GW*
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0112364-02A		**SW846 8260B Purgeable VOCs by GC/MS**					By:	JAA		
X01549	XG.2002.7.8	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	75-09-2	Methylene chloride	ND	ug / L	1	10		12-28-01	12-28-01
X01549	XG.2002.7.8	91-20-3	Naphthalene	ND	ug / L	1	5		12-28-01	12-28-01
X01549	XG.2002.7.8	95-47-6	o-Xylene	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	108-38-3/106-42	p/m Xylenes	ND	ug / L	1	2		12-28-01	12-28-01
X01549	XG.2002.7.8	100-42-5	Styrene	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	156-60-5	t-1,2 Dichloroethene	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	10061-02-6	t-1,3 Dichloropropene	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	127-18-4	Tetrachloroethene (PCE)	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	108-88-3	Toluene	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	79-01-6	Trichloroethene	ND	ug / L	1	1		12-28-01	12-28-01
X01549	XG.2002.7.8	75-69-4	Trichlorofluoromethane	ND	ug / L	1	5		12-28-01	12-28-01
X01549	XG.2002.7.8	108-05-4	Vinyl acetate	ND	ug / L	1	5		12-28-01	12-28-01
X01549	XG.2002.7.8	75-01-4	Vinyl chloride	ND	ug / L	1	5		12-28-01	12-28-01

Sample: ***HWSF-SB06-(3.0-4.0)-QA*** Collected: *12-18-01 12:31:00* By: *GW*
Matrix: ***SOIL***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0112364-03A		**SW846 8260B Purgeable VOCs by GC/MS**					By:	JAA		
X01536	XG.2002.15.3	75-34-3	1,1 Dichloroethane	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	75-34-3	1,1 Dichloroethene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	71-55-6	1,1,1 Trichloroethane	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	630-20-6	1,1,1,2 Tetrachloroethane	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	79-00-5	1,1,2 Trichloroethane	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	79-34-5	1,1,2,2 Tetrachloroethane	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	106-93-4	1,2 Dibromoethane (EDB)	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	95-50-1	1,2 Dichlorobenzene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	107-06-2	1,2 Dichloroethane (EDC)	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	78-87-5	1,2 Dichloropropane	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	96-18-4	1,2,3 Trichloropropane	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	95-63-6	1,2,4-Trimethylbenzene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	541-73-1	1,3 Dichlorobenzene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	108-67-8	1,3,5-Trimethylbenzene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	764-41-0	1,4 Dichloro-2-butene	ND	mg / Kg	1	0.05		12-28-01	12-28-01
X01536	XG.2002.15.3	106-46-7	1,4 Dichlorobenzene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	90-12-0	1-Methylnaphthalene	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.3	78-93-3	2-Butanone (MEK)	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.3	110-75-8	2-Chloroethylvinylether	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.3	591-78-6	2-Hexanone (MBK)	ND	mg / Kg	1	0.025		12-28-01	1
X01536	XG.2002.15.3	91-57-6	2-Methylnaphthalene	ND	mg / Kg	1	0.025		12-28-01	12-28-01

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Certificate of Analysis

ORIGINAL

Client: **MEVATEC CORPORATION**

ect: **HWSF EVAPORATION TANK**

Order: **0112364** **MEVA1E** Receipt: **12-20-01**

Sample: ***HWSF-SB06-(3.0-4.0)-QA*** Collected: *12-18-01 12:31:00* By: *GW*

Matrix: ***SOIL***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0112364-03A		**SW846 8260B Purgeable VOCs by GC/MS**					By:	JAA		
X01536	XG.2002.15.3	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.3	67-64-1	Acetone	ND	mg / Kg	1	0.05		12-28-01	12-28-01
X01536	XG.2002.15.3	107-02-8	Acrolein	ND	mg / Kg	1	0.1		12-28-01	12-28-01
X01536	XG.2002.15.3	107-13-1	Acrylonitrile	ND	mg / Kg	1	0.1		12-28-01	12-28-01
X01536	XG.2002.15.3	71-43-2	Benzene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	75-27-4	Bromodichloromethane	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	75-25-2	Bromoform	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	74-83-9	Bromomethane	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.3	75-15-0	Carbon disulfide	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.3	56-23-5	Carbon tetrachloride	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	108-90-7	Chlorobenzene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	124-48-1	Chlorodibromomethane	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	75-00-3	Chloroethane	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.3	67-66-3	Chloroform	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	74-87-3	Chloromethane	ND	mg / Kg	1	0.025		12-28-01	12-28-01
536	XG.2002.15.3	156-59-2	cis-1,2 dichloroethene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
536	XG.2002.15.3	10061-01-5	cis-1,3 dichloropropene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	74-95-3	Dibromomethane	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	97-63-2	Ethyl methacrylate	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.3	100-41-4	Ethylbenzene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3		Freon 113	ND	mg / Kg	1	0.035		12-28-01	12-28-01
X01536	XG.2002.15.3	75-71-8	Freon 12	ND	mg / Kg	1	0.05		12-28-01	12-28-01
X01536	XG.2002.15.3	74-88-4	Iodomethane	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.3	1634-04-4	Methyl t-butyl ether (MTBE)	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	75-09-2	Methylene chloride	ND	mg / Kg	1	0.05		12-28-01	12-28-01
X01536	XG.2002.15.3	91-20-3	Naphthalene	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.3	95-47-6	o-Xylene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	108-38-3/106-42	p/m Xylenes	ND	mg / Kg	1	0.01		12-28-01	12-28-01
X01536	XG.2002.15.3	100-42-5	Styrene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	156-60-5	t-1,2 Dichloroethene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	10061-02-6	t-1,3 Dichloropropene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	127-18-4	Tetrachloroethene (PCE)	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	108-88-3	Toluene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	79-01-6	Trichloroethene	ND	mg / Kg	1	0.005		12-28-01	12-28-01
X01536	XG.2002.15.3	75-69-4	Trichlorofluoromethane	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.3	108-05-4	Vinyl acetate	ND	mg / Kg	1	0.025		12-28-01	12-28-01
X01536	XG.2002.15.3	75-01-4	Vinyl chloride	ND	mg / Kg	1	0.01		12-28-01	12-28-01

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **MEVATEC CORPORATION**
Project: **HWSF EVAPORATION TANK**
Order: **0112364** **MEVA1E** Receipt: **12-20-01**

ORIGINAL

Sample: ***HWSF-SB07-(24.0-25.0)-QA*** Collected: *12-18-01 14:57:00* By: *GW*
Matrix: ***SOIL***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0112364-04A		**SW846 8260B Purgeable VOCs by GC/MS**					By:	JAA		
X01536	XG.2002.15.5	75-34-3	1,1 Dichloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	75-34-3	1,1 Dichloroethene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	71-55-6	1,1,1 Trichloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	630-20-6	1,1,1,2 Tetrachloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	79-00-5	1,1,2 Trichloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	79-34-5	1,1,2,2 Tetrachloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	106-93-4	1,2 Dibromoethane (EDB)	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	95-50-1	1,2 Dichlorobenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	107-06-2	1,2 Dichloroethane (EDC)	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	78-87-5	1,2 Dichloropropane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	96-18-4	1,2,3 Trichloropropane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	95-63-6	1,2,4-Trimethylbenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	541-73-1	1,3 Dichlorobenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	108-67-8	1,3,5-Trimethylbenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	764-41-0	1,4 Dichloro-2-butene	ND	mg / Kg	1	0.05		12-31-01	12-31-01
X01536	XG.2002.15.5	106-46-7	1,4 Dichlorobenzene	ND	mg / Kg	1	0.005		12-31-01	[illegible]
X01536	XG.2002.15.5	90-12-0	1-Methylnaphthalene	ND	mg / Kg	1	0.025		12-31-01	[illegible]
X01536	XG.2002.15.5	78-93-3	2-Butanone (MEK)	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.5	110-75-8	2-Chloroethylvinylether	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.5	591-78-6	2-Hexanone (MBK)	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.5	91-57-6	2-Methylnaphthalene	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.5	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.5	67-64-1	Acetone	ND	mg / Kg	1	0.05		12-31-01	12-31-01
X01536	XG.2002.15.5	107-02-8	Acrolein	ND	mg / Kg	1	0.1		12-31-01	12-31-01
X01536	XG.2002.15.5	107-13-1	Acrylonitrile	ND	mg / Kg	1	0.1		12-31-01	12-31-01
X01536	XG.2002.15.5	71-43-2	Benzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	75-27-4	Bromodichloromethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	75-25-2	Bromoform	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	74-83-9	Bromomethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.5	75-15-0	Carbon disulfide	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.5	56-23-5	Carbon tetrachloride	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	108-90-7	Chlorobenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	124-48-1	Chlorodibromomethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	75-00-3	Chloroethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.5	67-66-3	Chloroform	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	74-87-3	Chloromethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.5	156-59-2	cis-1,2 dichloroethene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	10061-01-5	cis-1,3 dichloropropene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	74-95-3	Dibromomethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	97-63-2	Ethyl methacrylate	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.5	100-41-4	Ethylbenzene	ND	mg / Kg	1	0.005		12-31-01	[illegible]
X01536	XG.2002.15.5		Freon 113	ND	mg / Kg	1	0.035		12-31-01	[illegible]
X01536	XG.2002.15.5	75-71-8	Freon 12	ND	mg / Kg	1	0.05		12-31-01	12-31-01

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

ORIGINAL

Client: **MEVATEC CORPORATION**
Project: **HWSF EVAPORATION TANK**
Order: **0112364** **MEVA1E** Receipt: **12-20-01**

Sample: ***HWSF-SB07-(24.0-25.0)-QA*** Collected: *12-18-01 14:57:00* By: *GW*
Matrix: ***SOIL***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0112364-04A		**SW846 8260B Purgeable VOCs by GC/MS**					By:	JAA		
X01536	XG.2002.15.5	74-88-4	Iodomethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.5	1634-04-4	Methyl t-butyl ether (MTBE)	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.17.1	75-09-2	Methylene chloride	ND	mg / Kg	1	0.05		12-31-01	12-31-01
X01536	XG.2002.15.5	91-20-3	Naphthalene	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.5	95-47-6	o-Xylene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	108-38-3/106-42	p/m Xylenes	ND	mg / Kg	1	0.01		12-31-01	12-31-01
X01536	XG.2002.15.5	100-42-5	Styrene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	156-60-5	t-1,2 Dichloroethene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	10061-02-6	t-1,3 Dichloropropene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	127-18-4	Tetrachloroethene (PCE)	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	108-88-3	Toluene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	79-01-6	Trichloroethene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.5	75-69-4	Trichlorofluoromethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.5	108-05-4	Vinyl acetate	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.5	75-01-4	Vinyl chloride	ND	mg / Kg	1	0.01		12-31-01	12-31-01

Sample: ***HWSF-SB03-(24.0-25.0)-QA*** Collected: *12-19-01 13:31:00* By: *GW*
Matrix: ***SOIL***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0112364-05A		**SW846 8260B Purgeable VOCs by GC/MS**					By:	JAA		
X01536	XG.2002.15.6	75-34-3	1,1 Dichloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	75-34-3	1,1 Dichloroethene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	71-55-6	1,1,1 Trichloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	630-20-6	1,1,1,2 Tetrachloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	79-00-5	1,1,2 Trichloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	79-34-5	1,1,2,2 Tetrachloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	106-93-4	1,2 Dibromoethane (EDB)	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	95-50-1	1,2 Dichlorobenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	107-06-2	1,2 Dichloroethane (EDC)	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	78-87-5	1,2 Dichloropropane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	96-18-4	1,2,3 Trichloropropane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	95-63-6	1,2,4-Trimethylbenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	541-73-1	1,3 Dichlorobenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	108-67-8	1,3,5-Trimethylbenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	764-41-0	1,4 Dichloro-2-butene	ND	mg / Kg	1	0.05		12-31-01	12-31-01
X01536	XG.2002.15.6	106-46-7	1,4 Dichlorobenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	90-12-0	1-Methylnaphthalene	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.6	78-93-3	2-Butanone (MEK)	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.6	110-75-8	2-Chloroethylvinylether	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.6	591-78-6	2-Hexanone (MBK)	ND	mg / Kg	1	0.025		12-31-01	12-31-01

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

ORIGINAL

Client: **MEVATEC CORPORATION**
Project: **HWSF EVAPORATION TANK**
Order: **0112364** **MEVA1E** Receipt: **12-20-01**

Sample: ***HWSF-SB03-(24.0-25.0)-QA*** Collected: *12-19-01 13:31:00* By: *GW*
Matrix: ***SOIL***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0112364-05A		**SW846 8260B Purgeable VOCs by GC/MS**					By:	JAA		
X01536	XG.2002.15.6	91-57-6	2-Methylnaphthalene	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.6	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.6	67-64-1	Acetone	ND	mg / Kg	1	0.05		12-31-01	12-31-01
X01536	XG.2002.15.6	107-02-8	Acrolein	ND	mg / Kg	1	0.1		12-31-01	12-31-01
X01536	XG.2002.15.6	107-13-1	Acrylonitrile	ND	mg / Kg	1	0.1		12-31-01	12-31-01
X01536	XG.2002.15.6	71-43-2	Benzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	75-27-4	Bromodichloromethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	75-25-2	Bromoform	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	74-83-9	Bromomethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.6	75-15-0	Carbon disulfide	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.6	56-23-5	Carbon tetrachloride	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	108-90-7	Chlorobenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	124-48-1	Chlorodibromomethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	75-00-3	Chloroethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.6	67-66-3	Chloroform	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	74-87-3	Chloromethane	ND	mg / Kg	1	0.025		12-31-01	1
X01536	XG.2002.15.6	156-59-2	cis-1,2 dichloroethene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	10061-01-5	cis-1,3 dichloropropene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	74-95-3	Dibromomethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	97-63-2	Ethyl methacrylate	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.6	100-41-4	Ethylbenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6		Freon 113	ND	mg / Kg	1	0.035		12-31-01	12-31-01
X01536	XG.2002.15.6	75-71-8	Freon 12	ND	mg / Kg	1	0.05		12-31-01	12-31-01
X01536	XG.2002.15.6	74-88-4	Iodomethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.6	1634-04-4	Methyl t-butyl ether (MTBE)	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.17.2	75-09-2	Methylene chloride	ND	mg / Kg	1	0.05		12-31-01	12-31-01
X01536	XG.2002.15.6	91-20-3	Naphthalene	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.6	95-47-6	o-Xylene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	108-38-3/106-42	p/m Xylenes	ND	mg / Kg	1	0.01		12-31-01	12-31-01
X01536	XG.2002.15.6	100-42-5	Styrene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	156-60-5	t-1,2 Dichloroethene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	10061-02-6	t-1,3 Dichloropropene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	127-18-4	Tetrachloroethene (PCE)	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	108-88-3	Toluene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	79-01-6	Trichloroethene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.6	75-69-4	Trichlorofluoromethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.6	108-05-4	Vinyl acetate	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.6	75-01-4	Vinyl chloride	ND	mg / Kg	1	0.01		12-31-01	12-31-01

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **MEVATEC CORPORATION**
Project: **HWSF EVAPORATION TANK**
Order: **0112364** **MEVA1E** Receipt: **12-20-01**

ORIGINAL

Sample: ***HWSF-SB01-(11.0-12.0)-QA*** Collected: *12-19-01 16:00:00* By: *GW*
Matrix: ***SOIL***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0112364-06A		**SW846 8260B Purgeable VOCs by GC/MS**					By:	JAA		
X01536	XG.2002.15.7	75-34-3	1,1 Dichloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	75-34-3	1,1 Dichloroethene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	71-55-6	1,1,1 Trichloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	630-20-6	1,1,1,2 Tetrachloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	79-00-5	1,1,2 Trichloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	79-34-5	1,1,2,2 Tetrachloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	106-93-4	1,2 Dibromoethane (EDB)	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	95-50-1	1,2 Dichlorobenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	107-06-2	1,2 Dichloroethane (EDC)	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	78-87-5	1,2 Dichloropropane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	96-18-4	1,2,3 Trichloropropane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	95-63-6	1,2,4-Trimethylbenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	541-73-1	1,3 Dichlorobenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	108-67-8	1,3,5-Trimethylbenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	764-41-0	1,4 Dichloro-2-butene	ND	mg / Kg	1	0.05		12-31-01	12-31-01
536	XG.2002.15.7	106-46-7	1,4 Dichlorobenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
536	XG.2002.15.7	90-12-0	1-Methylnaphthalene	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.7	78-93-3	2-Butanone (MEK)	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.7	110-75-8	2-Chloroethylvinylether	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.7	591-78-6	2-Hexanone (MBK)	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.7	91-57-6	2-Methylnaphthalene	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.7	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.7	67-64-1	Acetone	ND	mg / Kg	1	0.05		12-31-01	12-31-01
X01536	XG.2002.15.7	107-02-8	Acrolein	ND	mg / Kg	1	0.1		12-31-01	12-31-01
X01536	XG.2002.15.7	107-13-1	Acrylonitrile	ND	mg / Kg	1	0.1		12-31-01	12-31-01
X01536	XG.2002.15.7	71-43-2	Benzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	75-27-4	Bromodichloromethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	75-25-2	Bromoform	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	74-83-9	Bromomethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.7	75-15-0	Carbon disulfide	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.7	56-23-5	Carbon tetrachloride	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	108-90-7	Chlorobenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	124-48-1	Chlorodibromomethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	75-00-3	Chloroethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.7	67-66-3	Chloroform	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	74-87-3	Chloromethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.7	156-59-2	cis-1,2 dichloroethene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	10061-01-5	cis-1,3 dichloropropene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	74-95-3	Dibromomethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	97-63-2	Ethyl methacrylate	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.7	100-41-4	Ethylbenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
536	XG.2002.15.7		Freon 113	ND	mg / Kg	1	0.035		12-31-01	12-31-01
X01536	XG.2002.15.7	75-71-8	Freon 12	ND	mg / Kg	1	0.05		12-31-01	12-31-01

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

ORIGINAL

Client: **MEVATEC CORPORATION**
Project: **HWSF EVAPORATION TANK**
Order: **0112364** **MEVA1E** Receipt: **12-20-01**

Sample: ***HWSF-SB01-(11.0-12.0)-QA*** Collected: *12-19-01 16:00:00* By: *GW*
Matrix: ***SOIL***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0112364-06A		**SW846 8260B Purgeable VOCs by GC/MS**					By:	JAA		
X01536	XG.2002.15.7	74-88-4	Iodomethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.7	1634-04-4	Methyl t-butyl ether (MTBE)	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.17.3	75-09-2	Methylene chloride	ND	mg / Kg	1	0.05		12-31-01	12-31-01
X01536	XG.2002.15.7	91-20-3	Naphthalene	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.7	95-47-6	o-Xylene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	108-38-3/106-42	p/m Xylenes	ND	mg / Kg	1	0.01		12-31-01	12-31-01
X01536	XG.2002.15.7	100-42-5	Styrene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	156-60-5	t-1,2 Dichloroethene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	10061-02-6	t-1,3 Dichloropropene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	127-18-4	Tetrachloroethene (PCE)	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	108-88-3	Toluene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	79-01-6	Trichloroethene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.7	75-69-4	Trichlorofluoromethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.7	108-05-4	Vinyl acetate	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.7	75-01-4	Vinyl chloride	ND	mg / Kg	1	0.01		12-31-01	1[illegible]

Sample: ***HWSF-SB12-(11.0-12.0)-QA*** Collected: *12-19-01 8:05:00* By: *GW*
Matrix: ***SOIL***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0112364-07A		**SW846 8260B Purgeable VOCs by GC/MS**					By:	JAA		
X01536	XG.2002.15.8	75-34-3	1,1 Dichloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	75-34-3	1,1 Dichloroethene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	71-55-6	1,1,1 Trichloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	630-20-6	1,1,1,2 Tetrachloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	79-00-5	1,1,2 Trichloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	79-34-5	1,1,2,2 Tetrachloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	106-93-4	1,2 Dibromoethane (EDB)	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	95-50-1	1,2 Dichlorobenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	107-06-2	1,2 Dichloroethane (EDC)	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	78-87-5	1,2 Dichloropropane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	96-18-4	1,2,3 Trichloropropane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	95-63-6	1,2,4-Trimethylbenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	541-73-1	1,3 Dichlorobenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	108-67-8	1,3,5-Trimethylbenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	764-41-0	1,4 Dichloro-2-butene	ND	mg / Kg	1	0.05		12-31-01	12-31-01
X01536	XG.2002.15.8	106-46-7	1,4 Dichlorobenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	90-12-0	1-Methylnaphthalene	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.8	78-93-3	2-Butanone (MEK)	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.8	110-75-8	2-Chloroethylvinylether	ND	mg / Kg	1	0.025		12-31-01	1[illegible]
X01536	XG.2002.15.8	591-78-6	2-Hexanone (MBK)	ND	mg / Kg	1	0.025		12-31-01	12-31-01

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

ORIGINAL

Client: **MEVATEC CORPORATION**

:ct: **HWSF EVAPORATION TANK**

Order: **0112364** **MEVA1E** Receipt: **12-20-01**

Sample: ***HWSF-SB12-(11.0-12.0)-QA*** Collected: *12-19-01 8:05:00* By: *GW*

Matrix: ***SOIL***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0112364-07A		**SW846 8260B Purgeable VOCs by GC/MS**					By:	JAA		
X01536	XG.2002.15.8	91-57-6	2-Methylnaphthalene	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.8	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.8	67-64-1	Acetone	ND	mg / Kg	1	0.05		12-31-01	12-31-01
X01536	XG.2002.15.8	107-02-8	Acrolein	ND	mg / Kg	1	0.1		12-31-01	12-31-01
X01536	XG.2002.15.8	107-13-1	Acrylonitrile	ND	mg / Kg	1	0.1		12-31-01	12-31-01
X01536	XG.2002.15.8	71-43-2	Benzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	75-27-4	Bromodichloromethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	75-25-2	Bromoform	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	74-83-9	Bromomethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.8	75-15-0	Carbon disulfide	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.8	56-23-5	Carbon tetrachloride	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	108-90-7	Chlorobenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	124-48-1	Chlorodibromomethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	75-00-3	Chloroethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.8	67-66-3	Chloroform	ND	mg / Kg	1	0.005		12-31-01	12-31-01
36	XG.2002.15.8	74-87-3	Chloromethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
36	XG.2002.15.8	156-59-2	cis-1,2 dichloroethene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	10061-01-5	cis-1,3 dichloropropene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	74-95-3	Dibromomethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	97-63-2	Ethyl methacrylate	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.8	100-41-4	Ethylbenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8		Freon 113	ND	mg / Kg	1	0.035		12-31-01	12-31-01
X01536	XG.2002.15.8	75-71-8	Freon 12	ND	mg / Kg	1	0.05		12-31-01	12-31-01
X01536	XG.2002.15.8	74-88-4	Iodomethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.8	1634-04-4	Methyl t-butyl ether (MTBE)	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.17.4	75-09-2	Methylene chloride	ND	mg / Kg	1	0.05		12-31-01	12-31-01
X01536	XG.2002.15.8	91-20-3	Naphthalene	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.8	95-47-6	o-Xylene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	108-38-3/106-42	p/m Xylenes	ND	mg / Kg	1	0.01		12-31-01	12-31-01
X01536	XG.2002.15.8	100-42-5	Styrene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	156-60-5	t-1,2 Dichloroethene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	10061-02-6	t-1,3 Dichloropropene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	127-18-4	Tetrachloroethene (PCE)	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	108-88-3	Toluene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	79-01-6	Trichloroethene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.8	75-69-4	Trichlorofluoromethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.8	108-05-4	Vinyl acetate	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.8	75-01-4	Vinyl chloride	ND	mg / Kg	1	0.01		12-31-01	12-31-01

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

ORIGINAL

Client: **MEVATEC CORPORATION**
Project: **HWSF EVAPORATION TANK**
Order: **0112364** **MEVA1E** Receipt: **12-20-01**

Sample: ***HWSF-SB04-(11.0-12.0)-QA*** Collected: *12-19-01 11:35:00* By: *GW*
Matrix: ***SOIL***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0112364-08A		**SW846 8260B Purgeable VOCs by GC/MS**					By:	JAA		
X01536	XG.2002.15.9	75-34-3	1,1 Dichloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	75-34-3	1,1 Dichloroethene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	71-55-6	1,1,1 Trichloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	630-20-6	1,1,1,2 Tetrachloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	79-00-5	1,1,2 Trichloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	79-34-5	1,1,2,2 Tetrachloroethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	106-93-4	1,2 Dibromoethane (EDB)	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	95-50-1	1,2 Dichlorobenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	107-06-2	1,2 Dichloroethane (EDC)	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	78-87-5	1,2 Dichloropropane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	96-18-4	1,2,3 Trichloropropane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	95-63-6	1,2,4-Trimethylbenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	541-73-1	1,3 Dichlorobenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	108-67-8	1,3,5-Trimethylbenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	764-41-0	1,4 Dichloro-2-butene	ND	mg / Kg	1	0.05		12-31-01	12-31-01
X01536	XG.2002.15.9	106-46-7	1,4 Dichlorobenzene	ND	mg / Kg	1	0.005		12-31-01	[illegible]
X01536	XG.2002.15.9	90-12-0	1-Methylnaphthalene	ND	mg / Kg	1	0.025		12-31-01	[illegible]
X01536	XG.2002.15.9	78-93-3	2-Butanone (MEK)	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.9	110-75-8	2-Chloroethylvinylether	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.9	591-78-6	2-Hexanone (MBK)	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.9	91-57-6	2-Methylnaphthalene	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.9	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.9	67-64-1	Acetone	ND	mg / Kg	1	0.05		12-31-01	12-31-01
X01536	XG.2002.15.9	107-02-8	Acrolein	ND	mg / Kg	1	0.1		12-31-01	12-31-01
X01536	XG.2002.15.9	107-13-1	Acrylonitrile	ND	mg / Kg	1	0.1		12-31-01	12-31-01
X01536	XG.2002.15.9	71-43-2	Benzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	75-27-4	Bromodichloromethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	75-25-2	Bromoform	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	74-83-9	Bromomethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.9	75-15-0	Carbon disulfide	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.9	56-23-5	Carbon tetrachloride	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	108-90-7	Chlorobenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	124-48-1	Chlorodibromomethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	75-00-3	Chloroethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.9	67-66-3	Chloroform	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	74-87-3	Chloromethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.9	156-59-2	cis-1,2 dichloroethene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	10061-01-5	cis-1,3 dichloropropene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	74-95-3	Dibromomethane	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	97-63-2	Ethyl methacrylate	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.9	100-41-4	Ethylbenzene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9		Freon 113	ND	mg / Kg	1	0.035		12-31-01	[illegible]
X01536	XG.2002.15.9	75-71-8	Freon 12	ND	mg / Kg	1	0.05		12-31-01	12-31-01

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

ORIGINAL

Client: **MEVATEC CORPORATION**

Project: **HWSF EVAPORATION TANK**

Order: **0112364** **MEVA1E** Receipt: **12-20-01**

Sample: ***HWSF-SB04-(11.0-12.0)-QA*** Collected: *12-19-01 11:35:00* By: *GW*

Matrix: ***SOIL***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0112364-08A		**SW846 8260B Purgeable VOCs by GC/MS**					By:	JAA		
X01536	XG.2002.15.9	74-88-4	Iodomethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.9	1634-04-4	Methyl t-butyl ether (MTBE)	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.17.5	75-09-2	Methylene chloride	ND	mg / Kg	1	0.05		12-31-01	12-31-01
X01536	XG.2002.15.9	91-20-3	Naphthalene	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.9	95-47-6	o-Xylene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	108-38-3/106-42	p/m Xylenes	ND	mg / Kg	1	0.01		12-31-01	12-31-01
X01536	XG.2002.15.9	100-42-5	Styrene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	156-60-5	t-1,2 Dichloroethene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	10061-02-6	t-1,3 Dichloropropene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	127-18-4	Tetrachloroethene (PCE)	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	108-88-3	Toluene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	79-01-6	Trichloroethene	ND	mg / Kg	1	0.005		12-31-01	12-31-01
X01536	XG.2002.15.9	75-69-4	Trichlorofluoromethane	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.9	108-05-4	Vinyl acetate	ND	mg / Kg	1	0.025		12-31-01	12-31-01
X01536	XG.2002.15.9	75-01-4	Vinyl chloride	ND	mg / Kg	1	0.01		12-31-01	12-31-01

Unless otherwise noted, all samples were received in acceptable condition and all sampling was performed by client or client representative. Sample result of ND indicates Not Detected, ie result is less than the sample specific Detection Limit. Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. All results relate only to the items tested. Any miscellaneous workorder information or foonotes will appear below.

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **HWSF EVAPORATION TANK**
Order: **0112364 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***LCS: Lab Control Spike*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**SW846 8260B Purgeable VOCs by GC/MS**						**X01536-002**	
XG.2001.1843.2	75-34-3	1,1 Dichloroethene	121	% Recovery		1	NA		12-23-01
XG.2001.1843.2	106-46-7	1,4 Dichlorobenzene	112	% Recovery		1	NA		12-23-01
XG.2001.1843.2	71-43-2	Benzene	113	% Recovery		1	NA		12-23-01
XG.2001.1843.2	108-90-7	Chlorobenzene	125	% Recovery		1	NA		12-23-01
XG.2001.1843.2	108-88-3	Toluene	121	% Recovery		1	NA		12-23-01
XG.2001.1843.2	79-01-6	Trichloroethene	118	% Recovery		1	NA		12-23-01

Type: ***LCS: Lab Control Spike*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01549		**SW846 8260B Purgeable VOCs by GC/MS**						**X01549-002**	
XG.2002.7.2	75-34-3	1,1 Dichloroethene	129	% Recovery		1	NA		12-28-01
XG.2002.7.2	106-46-7	1,4 Dichlorobenzene	104	% Recovery		1	NA		12-28-01
XG.2002.7.2	71-43-2	Benzene	121	% Recovery		1	NA		12-28-01
XG.2002.7.2	108-90-7	Chlorobenzene	110	% Recovery		1	NA		12-28-01
XG.2002.7.2	108-88-3	Toluene	112	% Recovery		1	NA		1
XG.2002.7.2	79-01-6	Trichloroethene	119	% Recovery		1	NA		12-28-01

Type: ***LCSD: Lab Control Spike Duplicate Precision*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**SW846 8260B Purgeable VOCs by GC/MS**						**X01536-003**	
XG.2001.1843.3	75-34-3	1,1 Dichloroethene	5	RPD		1	NA		12-23-01
XG.2001.1843.3	106-46-7	1,4 Dichlorobenzene	5	RPD		1	NA		12-23-01
XG.2001.1843.3	71-43-2	Benzene	4	RPD		1	NA		12-23-01
XG.2001.1843.3	108-90-7	Chlorobenzene	6	RPD		1	NA		12-23-01
XG.2001.1843.3	108-88-3	Toluene	5	RPD		1	NA		12-23-01
XG.2001.1843.3	79-01-6	Trichloroethene	5	RPD		1	NA		12-23-01

Type: ***LCSD: Lab Control Spike Duplicate Precision*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01549		**SW846 8260B Purgeable VOCs by GC/MS**						**X01549-003**	
XG.2002.7.3	75-34-3	1,1 Dichloroethene	3	RPD		1	NA		12-28-01
XG.2002.7.3	106-46-7	1,4 Dichlorobenzene	3	RPD		1	NA		12-28-01
XG.2002.7.3	71-43-2	Benzene	6	RPD		1	NA		12-28-01
XG.2002.7.3	108-90-7	Chlorobenzene	1	RPD		1	NA		12-28-01
XG.2002.7.3	108-88-3	Toluene	< 1	RPD		1	NA		12-28-01
XG.2002.7.3	79-01-6	Trichloroethene	5	RPD		1	NA		1 1

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **HWSF EVAPORATION TANK**
Order: **0112364 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***LCSD: Lab Control Spike Duplicate Accuracy*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**SW846 8260B Purgeable VOCs by GC/MS**						**X01536-003**	
XG.2001.1843.3	75-34-3	1,1 Dichloroethene	115	% Recovery		1	NA		12-23-01
XG.2001.1843.3	106-46-7	1,4 Dichlorobenzene	106	% Recovery		1	NA		12-23-01
XG.2001.1843.3	71-43-2	Benzene	109	% Recovery		1	NA		12-23-01
XG.2001.1843.3	108-90-7	Chlorobenzene	118	% Recovery		1	NA		12-23-01
XG.2001.1843.3	108-88-3	Toluene	116	% Recovery		1	NA		12-23-01
XG.2001.1843.3	79-01-6	Trichloroethene	112	% Recovery		1	NA		12-23-01

Type: ***LCSD: Lab Control Spike Duplicate Accuracy*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01549		**SW846 8260B Purgeable VOCs by GC/MS**						**X01549-003**	
XG.2002.7.3	75-34-3	1,1 Dichloroethene	125	% Recovery		1	NA		12-28-01
XG.2002.7.3	106-46-7	1,4 Dichlorobenzene	101	% Recovery		1	NA		12-28-01
XG.2002.7.3	71-43-2	Benzene	114	% Recovery		1	NA		12-28-01
XG.2002.7.3	108-90-7	Chlorobenzene	108	% Recovery		1	NA		12-28-01
2002.7.3	108-88-3	Toluene	112	% Recovery		1	NA		12-28-01
2002.7.3	79-01-6	Trichloroethene	113	% Recovery		1	NA		12-28-01

Type: ***MB: Method Blank*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**SW846 8260B Purgeable VOCs by GC/MS**						**X01536-001**	
XG.2001.1843.1	75-34-3	1,1 Dichloroethane	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	75-34-3	1,1 Dichloroethene	0.007	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	71-55-6	1,1,1 Trichloroethane	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	630-20-6	1,1,1,2 Tetrachloroethane	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	79-00-5	1,1,2 Trichloroethane	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	79-34-5	1,1,2,2 Tetrachloroethane	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	106-93-4	1,2 Dibromoethane (EDB)	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	95-50-1	1,2 Dichlorobenzene	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	107-06-2	1,2 Dichloroethane (EDC)	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	78-87-5	1,2 Dichloropropane	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	96-18-4	1,2,3 Trichloropropane	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	95-63-6	1,2,4-Trimethylbenzene	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	541-73-1	1,3 Dichlorobenzene	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	108-67-8	1,3,5-Trimethylbenzene	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	764-41-0	1,4 Dichloro-2-butene	ND	mg / Kg		1	0.05		12-23-01
XG.2001.1843.1	106-46-7	1,4 Dichlorobenzene	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	90-12-0	1-Methylnaphthalene	ND	mg / Kg		1	0.025		12-23-01
2001.1843.1	78-93-3	2-Butanone (MEK)	ND	mg / Kg		1	0.025		12-23-01
2001.1843.1	110-75-8	2-Chloroethylvinylether	ND	mg / Kg		1	0.025		12-23-01

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **HWSF EVAPORATION TANK**
Order: **0112364 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**SW846 8260B Purgeable VOCs by GC/MS**						**X01536-001**	
XG.2001.1843.1	591-78-6	2-Hexanone (MBK)	ND	mg / Kg		1	0.025		12-23-01
XG.2001.1843.1	91-57-6	2-Methylnaphthalene	ND	mg / Kg		1	0.025		12-23-01
XG.2001.1843.1	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	mg / Kg		1	0.025		12-23-01
XG.2001.1843.1	67-64-1	Acetone	ND	mg / Kg		1	0.05		12-23-01
XG.2001.1843.1	107-02-8	Acrolein	ND	mg / Kg		1	0.1		12-23-01
XG.2001.1843.1	107-13-1	Acrylonitrile	ND	mg / Kg		1	0.1		12-23-01
XG.2001.1843.1	71-43-2	Benzene	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	75-27-4	Bromodichloromethane	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	75-25-2	Bromoform	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	74-83-9	Bromomethane	ND	mg / Kg		1	0.025		12-23-01
XG.2001.1843.1	75-15-0	Carbon disulfide	ND	mg / Kg		1	0.025		12-23-01
XG.2001.1843.1	56-23-5	Carbon tetrachloride	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	108-90-7	Chlorobenzene	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	124-48-1	Chlorodibromomethane	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	75-00-3	Chloroethane	ND	mg / Kg		1	0.025		12-23-01
XG.2001.1843.1	67-66-3	Chloroform	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	74-87-3	Chloromethane	ND	mg / Kg		1	0.025		1[illegible]
XG.2001.1843.1	156-59-2	cis-1,2 dichloroethene	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	10061-01-5	cis-1,3 dichloropropene	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	74-95-3	Dibromomethane	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	97-63-2	Ethyl methacrylate	ND	mg / Kg		1	0.025		12-23-01
XG.2001.1843.1	100-41-4	Ethylbenzene	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1		Freon 113	ND	mg / Kg		1	0.035		12-23-01
XG.2001.1843.1	75-71-8	Freon 12	ND	mg / Kg		1	0.05		12-23-01
XG.2001.1843.1	74-88-4	Iodomethane	ND	mg / Kg		1	0.025		12-23-01
XG.2001.1843.1	1634-04-4	Methyl t-butyl ether (MTBE)	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	75-09-2	Methylene chloride	ND	mg / Kg		1	0.05		12-23-01
XG.2001.1843.1	91-20-3	Naphthalene	ND	mg / Kg		1	0.025		12-23-01
XG.2001.1843.1	95-47-6	o-Xylene	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	108-38-3/106-42	p/m Xylenes	ND	mg / Kg		1	0.01		12-23-01
XG.2001.1843.1	100-42-5	Styrene	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	156-60-5	t-1,2 Dichloroethene	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	10061-02-6	t-1,3 Dichloropropene	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	127-18-4	Tetrachloroethene (PCE)	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	108-88-3	Toluene	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	79-01-6	Trichloroethene	ND	mg / Kg		1	0.005		12-23-01
XG.2001.1843.1	75-69-4	Trichlorofluoromethane	ND	mg / Kg		1	0.025		12-23-01
XG.2001.1843.1	108-05-4	Vinyl acetate	ND	mg / Kg		1	0.025		12-23-01
XG.2001.1843.1	75-01-4	Vinyl chloride	ND	mg / Kg		1	0.01		12-23-01
X01536		**SW846 8260B Purgeable VOCs by GC/MS**						**X01536-010**	
XG.2001.1845.1	75-34-3	1,1 Dichloroethane	ND	mg / Kg		1	0.005		12[illegible]01
XG.2001.1845.1	75-34-3	1,1 Dichloroethene	ND	mg / Kg		1	0.005		1[illegible]
XG.2001.1845.1	71-55-6	1,1,1 Trichloroethane	ND	mg / Kg		1	0.005		12-24-01

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **HWSF EVAPORATION TANK**
Order: **0112364 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**SW846 8260B Purgeable VOCs by GC/MS**						**X01536-010**	
XG.2001.1845.1	630-20-6	1,1,1,2 Tetrachloroethane	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	79-00-5	1,1,2 Trichloroethane	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	79-34-5	1,1,2,2 Tetrachloroethane	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	106-93-4	1,2 Dibromoethane (EDB)	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	95-50-1	1,2 Dichlorobenzene	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	107-06-2	1,2 Dichloroethane (EDC)	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	78-87-5	1,2 Dichloropropane	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	96-18-4	1,2,3 Trichloropropane	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	95-63-6	1,2,4-Trimethylbenzene	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	541-73-1	1,3 Dichlorobenzene	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	108-67-8	1,3,5-Trimethylbenzene	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	764-41-0	1,4 Dichloro-2-butene	ND	mg / Kg		1	0.05		12-24-01
XG.2001.1845.1	106-46-7	1,4 Dichlorobenzene	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	90-12-0	1-Methylnaphthalene	ND	mg / Kg		1	0.025		12-24-01
XG.2001.1845.1	78-93-3	2-Butanone (MEK)	ND	mg / Kg		1	0.025		12-24-01
XG.2001.1845.1	110-75-8	2-Chloroethylvinylether	ND	mg / Kg		1	0.025		12-24-01
?001.1845.1	591-78-6	2-Hexanone (MBK)	ND	mg / Kg		1	0.025		12-24-01
.2001.1845.1	91-57-6	2-Methylnaphthalene	ND	mg / Kg		1	0.025		12-24-01
XG.2001.1845.1	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	mg / Kg		1	0.025		12-24-01
XG.2001.1845.1	67-64-1	Acetone	ND	mg / Kg		1	0.05		12-24-01
XG.2001.1845.1	107-02-8	Acrolein	ND	mg / Kg		1	0.1		12-24-01
XG.2001.1845.1	107-13-1	Acrylonitrile	ND	mg / Kg		1	0.1		12-24-01
XG.2001.1845.1	71-43-2	Benzene	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	75-27-4	Bromodichloromethane	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	75-25-2	Bromoform	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	74-83-9	Bromomethane	ND	mg / Kg		1	0.025		12-24-01
XG.2001.1845.1	75-15-0	Carbon disulfide	ND	mg / Kg		1	0.025		12-24-01
XG.2001.1845.1	56-23-5	Carbon tetrachloride	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	108-90-7	Chlorobenzene	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	124-48-1	Chlorodibromomethane	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	75-00-3	Chloroethane	ND	mg / Kg		1	0.025		12-24-01
XG.2001.1845.1	67-66-3	Chloroform	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	74-87-3	Chloromethane	ND	mg / Kg		1	0.025		12-24-01
XG.2001.1845.1	156-59-2	cis-1,2 dichloroethene	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	10061-01-5	cis-1,3 dichloropropene	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	74-95-3	Dibromomethane	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	97-63-2	Ethyl methacrylate	ND	mg / Kg		1	0.025		12-24-01
XG.2001.1845.1	100-41-4	Ethylbenzene	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1		Freon 113	ND	mg / Kg		1	0.035		12-24-01
XG.2001.1845.1	75-71-8	Freon 12	ND	mg / Kg		1	0.05		12-24-01
XG.2001.1845.1	74-88-4	Iodomethane	0.047	mg / Kg		1	0.025		12-24-01
XG.2001.1845.1	1634-04-4	Methyl t-butyl ether (MTBE)	ND	mg / Kg		1	0.005		12-24-01
001.1845.1	75-09-2	Methylene chloride	ND	mg / Kg		1	0.05		12-24-01
XG.2001.1845.1	91-20-3	Naphthalene	ND	mg / Kg		1	0.025		12-24-01

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **HWSF EVAPORATION TANK**
Order: **0112364 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**SW846 8260B Purgeable VOCs by GC/MS**						**X01536-010**	
XG.2001.1845.1	95-47-6	o-Xylene	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	108-38-3/106-42	p/m Xylenes	ND	mg / Kg		1	0.01		12-24-01
XG.2001.1845.1	100-42-5	Styrene	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	156-60-5	t-1,2 Dichloroethene	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	10061-02-6	t-1,3 Dichloropropene	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	127-18-4	Tetrachloroethene (PCE)	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	108-88-3	Toluene	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	79-01-6	Trichloroethene	ND	mg / Kg		1	0.005		12-24-01
XG.2001.1845.1	75-69-4	Trichlorofluoromethane	ND	mg / Kg		1	0.025		12-24-01
XG.2001.1845.1	108-05-4	Vinyl acetate	ND	mg / Kg		1	0.025		12-24-01
XG.2001.1845.1	75-01-4	Vinyl chloride	ND	mg / Kg		1	0.01		12-24-01
X01536		**SW846 8260B Purgeable VOCs by GC/MS**						**X01536-017**	
XG.2002.15.1	75-34-3	1,1 Dichloroethane	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	75-34-3	1,1 Dichloroethene	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	71-55-6	1,1,1 Trichloroethane	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	630-20-6	1,1,1,2 Tetrachloroethane	ND	mg / Kg		1	0.005		1[illegible]
XG.2002.15.1	79-00-5	1,1,2 Trichloroethane	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	79-34-5	1,1,2,2 Tetrachloroethane	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	106-93-4	1,2 Dibromoethane (EDB)	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	95-50-1	1,2 Dichlorobenzene	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	107-06-2	1,2 Dichloroethane (EDC)	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	78-87-5	1,2 Dichloropropane	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	96-18-4	1,2,3 Trichloropropane	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	95-63-6	1,2,4-Trimethylbenzene	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	541-73-1	1,3 Dichlorobenzene	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	108-67-8	1,3,5-Trimethylbenzene	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	764-41-0	1,4 Dichloro-2-butene	ND	mg / Kg		1	0.05		12-28-01
XG.2002.15.1	106-46-7	1,4 Dichlorobenzene	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	90-12-0	1-Methylnaphthalene	ND	mg / Kg		1	0.025		12-28-01
XG.2002.15.1	78-93-3	2-Butanone (MEK)	ND	mg / Kg		1	0.025		12-28-01
XG.2002.15.1	110-75-8	2-Chloroethylvinylether	ND	mg / Kg		1	0.025		12-28-01
XG.2002.15.1	591-78-6	2-Hexanone (MBK)	ND	mg / Kg		1	0.025		12-28-01
XG.2002.15.1	91-57-6	2-Methylnaphthalene	ND	mg / Kg		1	0.025		12-28-01
XG.2002.15.1	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	mg / Kg		1	0.025		12-28-01
XG.2002.15.1	67-64-1	Acetone	ND	mg / Kg		1	0.05		12-28-01
XG.2002.15.1	107-02-8	Acrolein	ND	mg / Kg		1	0.1		12-28-01
XG.2002.15.1	107-13-1	Acrylonitrile	ND	mg / Kg		1	0.1		12-28-01
XG.2002.15.1	71-43-2	Benzene	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	75-27-4	Bromodichloromethane	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	75-25-2	Bromoform	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	74-83-9	Bromomethane	ND	mg / Kg		1	0.025		12-[illegible]-01
XG.2002.15.1	75-15-0	Carbon disulfide	ND	mg / Kg		1	0.025		1[illegible]
XG.2002.15.1	56-23-5	Carbon tetrachloride	ND	mg / Kg		1	0.005		12-28-01

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
ct: **HWSF EVAPORATION TANK**
Order: **0112364 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**SW846 8260B Purgeable VOCs by GC/MS**						**X01536-017**	
XG.2002.15.1	108-90-7	Chlorobenzene	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	124-48-1	Chlorodibromomethane	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	75-00-3	Chloroethane	ND	mg / Kg		1	0.025		12-28-01
XG.2002.15.1	67-66-3	Chloroform	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	74-87-3	Chloromethane	ND	mg / Kg		1	0.025		12-28-01
XG.2002.15.1	156-59-2	cis-1,2 dichloroethene	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	10061-01-5	cis-1,3 dichloropropene	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	74-95-3	Dibromomethane	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	97-63-2	Ethyl methacrylate	ND	mg / Kg		1	0.025		12-28-01
XG.2002.15.1	100-41-4	Ethylbenzene	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1		Freon 113	ND	mg / Kg		1	0.035		12-28-01
XG.2002.15.1	75-71-8	Freon 12	ND	mg / Kg		1	0.05		12-28-01
XG.2002.15.1	74-88-4	Iodomethane	ND	mg / Kg		1	0.025		12-28-01
XG.2002.15.1	1634-04-4	Methyl t-butyl ether (MTBE)	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	75-09-2	Methylene chloride	ND	mg / Kg		1	0.05		12-28-01
XG.2002.15.1	91-20-3	Naphthalene	ND	mg / Kg		1	0.025		12-28-01
002.15.1	95-47-6	o-Xylene	ND	mg / Kg		1	0.005		12-28-01
.002.15.1	108-38-3/106-42	p/m Xylenes	ND	mg / Kg		1	0.01		12-28-01
XG.2002.15.1	100-42-5	Styrene	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	156-60-5	t-1,2 Dichloroethene	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	10061-02-6	t-1,3 Dichloropropene	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	127-18-4	Tetrachloroethene (PCE)	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	108-88-3	Toluene	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	79-01-6	Trichloroethene	ND	mg / Kg		1	0.005		12-28-01
XG.2002.15.1	75-69-4	Trichlorofluoromethane	ND	mg / Kg		1	0.025		12-28-01
XG.2002.15.1	108-05-4	Vinyl acetate	ND	mg / Kg		1	0.025		12-28-01
XG.2002.15.1	75-01-4	Vinyl chloride	ND	mg / Kg		1	0.01		12-28-01
X01536		**SW846 8260B Purgeable VOCs by GC/MS**						**X01536-020**	
XG.2002.15.4	75-34-3	1,1 Dichloroethane	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	75-34-3	1,1 Dichloroethene	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	71-55-6	1,1,1 Trichloroethane	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	630-20-6	1,1,1,2 Tetrachloroethane	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	79-00-5	1,1,2 Trichloroethane	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	79-34-5	1,1,2,2 Tetrachloroethane	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	106-93-4	1,2 Dibromoethane (EDB)	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	95-50-1	1,2 Dichlorobenzene	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	107-06-2	1,2 Dichloroethane (EDC)	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	78-87-5	1,2 Dichloropropane	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	96-18-4	1,2,3 Trichloropropane	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	95-63-6	1,2,4-Trimethylbenzene	ND	mg / Kg		1	0.005		12-31-01
XG 2002.15.4	541-73-1	1,3 Dichlorobenzene	ND	mg / Kg		1	0.005		12-31-01
002.15.4	108-67-8	1,3,5-Trimethylbenzene	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	764-41-0	1,4 Dichloro-2-butene	ND	mg / Kg		1	0.05		12-31-01

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **HWSF EVAPORATION TANK**
Order: **0112364 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**SW846 8260B Purgeable VOCs by GC/MS**						**X01536-020**	
XG.2002.15.4	106-46-7	1,4 Dichlorobenzene	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	90-12-0	1-Methylnaphthalene	ND	mg / Kg		1	0.025		12-31-01
XG.2002.15.4	78-93-3	2-Butanone (MEK)	ND	mg / Kg		1	0.025		12-31-01
XG.2002.15.4	110-75-8	2-Chloroethylvinylether	ND	mg / Kg		1	0.025		12-31-01
XG.2002.15.4	591-78-6	2-Hexanone (MBK)	ND	mg / Kg		1	0.025		12-31-01
XG.2002.15.4	91-57-6	2-Methylnaphthalene	ND	mg / Kg		1	0.025		12-31-01
XG.2002.15.4	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	mg / Kg		1	0.025		12-31-01
XG.2002.15.4	67-64-1	Acetone	ND	mg / Kg		1	0.05		12-31-01
XG.2002.15.4	107-02-8	Acrolein	ND	mg / Kg		1	0.1		12-31-01
XG.2002.15.4	107-13-1	Acrylonitrile	ND	mg / Kg		1	0.1		12-31-01
XG.2002.15.4	71-43-2	Benzene	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	75-27-4	Bromodichloromethane	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	75-25-2	Bromoform	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	74-83-9	Bromomethane	ND	mg / Kg		1	0.025		12-31-01
XG.2002.15.4	75-15-0	Carbon disulfide	ND	mg / Kg		1	0.025		12-31-01
XG.2002.15.4	56-23-5	Carbon tetrachloride	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	108-90-7	Chlorobenzene	ND	mg / Kg		1	0.005		[illegible]01
XG.2002.15.4	124-48-1	Chlorodibromomethane	ND	mg / Kg		1	0.005		[illegible]01
XG.2002.15.4	75-00-3	Chloroethane	ND	mg / Kg		1	0.025		12-31-01
XG.2002.15.4	67-66-3	Chloroform	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	74-87-3	Chloromethane	ND	mg / Kg		1	0.025		12-31-01
XG.2002.15.4	156-59-2	cis-1,2 dichloroethene	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	10061-01-5	cis-1,3 dichloropropene	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	74-95-3	Dibromomethane	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	97-63-2	Ethyl methacrylate	ND	mg / Kg		1	0.025		12-31-01
XG.2002.15.4	100-41-4	Ethylbenzene	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4		Freon 113	ND	mg / Kg		1	0.035		12-31-01
XG.2002.15.4	75-71-8	Freon 12	ND	mg / Kg		1	0.05		12-31-01
XG.2002.15.4	74-88-4	Iodomethane	ND	mg / Kg		1	0.025		12-31-01
XG.2002.15.4	1634-04-4	Methyl t-butyl ether (MTBE)	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	75-09-2	Methylene chloride	ND	mg / Kg		1	0.05		12-31-01
XG.2002.15.4	91-20-3	Naphthalene	ND	mg / Kg		1	0.025		12-31-01
XG.2002.15.4	95-47-6	o-Xylene	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	108-38-3/106-42	p/m Xylenes	ND	mg / Kg		1	0.01		12-31-01
XG.2002.15.4	100-42-5	Styrene	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	156-60-5	t-1,2 Dichloroethene	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	10061-02-6	t-1,3 Dichloropropene	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	127-18-4	Tetrachloroethene (PCE)	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	108-88-3	Toluene	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	79-01-6	Trichloroethene	ND	mg / Kg		1	0.005		12-31-01
XG.2002.15.4	75-69-4	Trichlorofluoromethane	ND	mg / Kg		1	0.025		12-31-01
XG.2002.15.4	108-05-4	Vinyl acetate	ND	mg / Kg		1	0.025		[illegible]01
XG.2002.15.4	75-01-4	Vinyl chloride	ND	mg / Kg		1	0.01		[illegible]01

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **HWSF EVAPORATION TANK**
Order: **0112364 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**SW846 8260B Purgeable VOCs by GC/MS**					**X01536-026**		
XG.2002.15.10	75-34-3	1,1 Dichloroethane	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	75-34-3	1,1 Dichloroethene	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	71-55-6	1,1,1 Trichloroethane	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	630-20-6	1,1,1,2 Tetrachloroethane	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	79-00-5	1,1,2 Trichloroethane	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	79-34-5	1,1,2,2 Tetrachloroethane	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	106-93-4	1,2 Dibromoethane (EDB)	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	95-50-1	1,2 Dichlorobenzene	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	107-06-2	1,2 Dichloroethane (EDC)	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	78-87-5	1,2 Dichloropropane	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	96-18-4	1,2,3 Trichloropropane	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	95-63-6	1,2,4-Trimethylbenzene	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	541-73-1	1,3 Dichlorobenzene	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	108-67-8	1,3,5-Trimethylbenzene	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	764-41-0	1,4 Dichloro-2-butene	ND	mg / Kg		1	0.05		01-02-02
XG.2002.15.10	106-46-7	1,4 Dichlorobenzene	ND	mg / Kg		1	0.005		01-02-02
002.15.10	78-93-3	2-Butanone (MEK)	ND	mg / Kg		1	0.025		01-02-02
2002.15.10	110-75-8	2-Chloroethylvinylether	ND	mg / Kg		1	0.025		01-02-02
XG.2002.15.10	591-78-6	2-Hexanone (MBK)	ND	mg / Kg		1	0.025		01-02-02
XG.2002.15.10	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	mg / Kg		1	0.025		01-02-02
XG.2002.15.10	67-64-1	Acetone	ND	mg / Kg		1	0.05		01-02-02
XG.2002.15.10	107-02-8	Acrolein	ND	mg / Kg		1	0.1		01-02-02
XG.2002.15.10	107-13-1	Acrylonitrile	ND	mg / Kg		1	0.1		01-02-02
XG.2002.15.10	71-43-2	Benzene	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	75-27-4	Bromodichloromethane	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	75-25-2	Bromoform	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	74-83-9	Bromomethane	ND	mg / Kg		1	0.025		01-02-02
XG.2002.15.10	75-15-0	Carbon disulfide	ND	mg / Kg		1	0.025		01-02-02
XG.2002.15.10	56-23-5	Carbon tetrachloride	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	108-90-7	Chlorobenzene	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	124-48-1	Chlorodibromomethane	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	75-00-3	Chloroethane	ND	mg / Kg		1	0.025		01-02-02
XG.2002.15.10	67-66-3	Chloroform	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	74-87-3	Chloromethane	ND	mg / Kg		1	0.025		01-02-02
XG.2002.15.10	156-59-2	cis-1,2 dichloroethene	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	10061-01-5	cis-1,3 dichloropropene	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	74-95-3	Dibromomethane	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	97-63-2	Ethyl methacrylate	ND	mg / Kg		1	0.025		01-02-02
XG.2002.15.10	100-41-4	Ethylbenzene	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10		Freon 113	ND	mg / Kg		1	0.035		01-02-02
XG.2002.15.10	75-71-8	Freon 12	ND	mg / Kg		1	0.05		01-02-02
XG.2002.15.10	74-88-4	Iodomethane	ND	mg / Kg		1	0.025		01-02-02
002.15.10	1634-04-4	Methyl t-butyl ether (MTBE)	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	75-09-2	Methylene chloride	ND	mg / Kg		1	0.05		01-02-02

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **HWSF EVAPORATION TANK**
Order: **0112364 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**SW846 8260B Purgeable VOCs by GC/MS**						**X01536-026**	
XG.2002.15.10	91-20-3	Naphthalene	ND	mg / Kg		1	0.025		01-02-02
XG.2002.15.10	95-47-6	o-Xylene	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	108-38-3/106-42	p/m Xylenes	ND	mg / Kg		1	0.01		01-02-02
XG.2002.15.10	100-42-5	Styrene	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	156-60-5	t-1,2 Dichloroethene	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	10061-02-6	t-1,3 Dichloropropene	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	127-18-4	Tetrachloroethene (PCE)	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	108-88-3	Toluene	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	79-01-6	Trichloroethene	ND	mg / Kg		1	0.005		01-02-02
XG.2002.15.10	75-69-4	Trichlorofluoromethane	ND	mg / Kg		1	0.025		01-02-02
XG.2002.15.10	108-05-4	Vinyl acetate	ND	mg / Kg		1	0.025		01-02-02
XG.2002.15.10	75-01-4	Vinyl chloride	ND	mg / Kg		1	0.01		01-02-02

Type: ***MB: Method Blank*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Da
X01549		**SW846 8260B Purgeable VOCs by GC/MS**						**X01549-001**	
XG.2002.7.1	75-34-3	1,1 Dichloroethane	ND	ug / L		1	1		12-28-01
XG.2002.7.1	75-34-3	1,1 Dichloroethene	ND	ug / L		1	1		12-28-01
XG.2002.7.1	71-55-6	1,1,1 Trichloroethane	ND	ug / L		1	1		12-28-01
XG.2002.7.1	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L		1	1		12-28-01
XG.2002.7.1	79-00-5	1,1,2 Trichloroethane	ND	ug / L		1	1		12-28-01
XG.2002.7.1	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L		1	1		12-28-01
XG.2002.7.1	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L		1	1		12-28-01
XG.2002.7.1	95-50-1	1,2 Dichlorobenzene	ND	ug / L		1	1		12-28-01
XG.2002.7.1	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L		1	1		12-28-01
XG.2002.7.1	78-87-5	1,2 Dichloropropane	ND	ug / L		1	1		12-28-01
XG.2002.7.1	96-18-4	1,2,3 Trichloropropane	ND	ug / L		1	1		12-28-01
XG.2002.7.1	95-63-6	1,2,4-Trimethylbenzene	ND	ug / L		1	1		12-28-01
XG.2002.7.1	541-73-1	1,3 Dichlorobenzene	ND	ug / L		1	1		12-28-01
XG.2002.7.1	108-67-8	1,3,5-Trimethylbenzene	ND	ug / L		1	1		12-28-01
XG.2002.7.1	764-41-0	1,4 Dichloro-2-butene	ND	ug / L		1	10		12-28-01
XG.2002.7.1	106-46-7	1,4 Dichlorobenzene	ND	ug / L		1	1		12-28-01
XG.2002.7.1	90-12-0	1-Methylnaphthalene	ND	ug / L		1	5		12-28-01
XG.2002.7.1	78-93-3	2-Butanone (MEK)	ND	ug / L		1	5		12-28-01
XG.2002.7.1	110-75-8	2-Chloroethylvinylether	ND	ug / L		1	5		12-28-01
XG.2002.7.1	591-78-6	2-Hexanone (MBK)	ND	ug / L		1	5		12-28-01
XG.2002.7.1	91-57-6	2-Methylnaphthalene	ND	ug / L		1	5		12-28-01
XG.2002.7.1	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L		1	5		12-28-01
XG.2002.7.1	67-64-1	Acetone	ND	ug / L		1	10		12-28-01
XG.2002.7.1	107-02-8	Acrolein	ND	ug / L		1	20		[illegible]1
XG.2002.7.1	107-13-1	Acrylonitrile	ND	ug / L		1	20		12[illegible]-01

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **HWSF EVAPORATION TANK**
Order: **0112364 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01549		**SW846 8260B Purgeable VOCs by GC/MS**						**X01549-001**	
XG.2002.7.1	71-43-2	Benzene	ND	ug / L		1	1		12-28-01
XG.2002.7.1	75-27-4	Bromodichloromethane	ND	ug / L		1	1		12-28-01
XG.2002.7.1	75-25-2	Bromoform	ND	ug / L		1	1		12-28-01
XG.2002.7.1	74-83-9	Bromomethane	ND	ug / L		1	5		12-28-01
XG.2002.7.1	75-15-0	Carbon disulfide	ND	ug / L		1	5		12-28-01
XG.2002.7.1	56-23-5	Carbon tetrachloride	ND	ug / L		1	1		12-28-01
XG.2002.7.1	108-90-7	Chlorobenzene	ND	ug / L		1	1		12-28-01
XG.2002.7.1	124-48-1	Chlorodibromomethane	ND	ug / L		1	1		12-28-01
XG.2002.7.1	75-00-3	Chloroethane	ND	ug / L		1	5		12-28-01
XG.2002.7.1	67-66-3	Chloroform	ND	ug / L		1	1		12-28-01
XG.2002.7.1	74-87-3	Chloromethane	ND	ug / L		1	5		12-28-01
XG.2002.7.1	156-59-2	cis-1,2 dichloroethene	ND	ug / L		1	1		12-28-01
XG.2002.7.1	10061-01-5	cis-1,3 dichloropropene	ND	ug / L		1	1		12-28-01
XG.2002.7.1	74-95-3	Dibromomethane	ND	ug / L		1	1		12-28-01
XG.2002.7.1	97-63-2	Ethyl methacrylate	ND	ug / L		1	5		12-28-01
XG.2002.7.1	100-41-4	Ethylbenzene	ND	ug / L		1	1		12-28-01
2002.7.1		Freon 113	ND	ug / L		1	5		12-28-01
2002.7.1	75-71-8	Freon 12	ND	ug / L		1	10		12-28-01
XG.2002.7.1	74-88-4	Iodomethane	ND	ug / L		1	5		12-28-01
XG.2002.7.1	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L		1	1		12-28-01
XG.2002.7.1	75-09-2	Methylene chloride	ND	ug / L		1	10		12-28-01
XG.2002.7.1	91-20-3	Naphthalene	ND	ug / L		1	5		12-28-01
XG.2002.7.1	95-47-6	o-Xylene	ND	ug / L		1	1		12-28-01
XG.2002.7.1	108-38-3/106-42	p/m Xylenes	ND	ug / L		1	2		12-28-01
XG.2002.7.1	100-42-5	Styrene	ND	ug / L		1	1		12-28-01
XG.2002.7.1	156-60-5	t-1,2 Dichloroethene	ND	ug / L		1	1		12-28-01
XG.2002.7.1	10061-02-6	t-1,3 Dichloropropene	ND	ug / L		1	1		12-28-01
XG.2002.7.1	127-18-4	Tetrachloroethene (PCE)	ND	ug / L		1	1		12-28-01
XG.2002.7.1	108-88-3	Toluene	ND	ug / L		1	1		12-28-01
XG.2002.7.1	79-01-6	Trichloroethene	ND	ug / L		1	1		12-28-01
XG.2002.7.1	75-69-4	Trichlorofluoromethane	ND	ug / L		1	5		12-28-01
XG.2002.7.1	108-05-4	Vinyl acetate	ND	ug / L		1	5		12-28-01
XG.2002.7.1	75-01-4	Vinyl chloride	ND	ug / L		1	5		12-28-01

Type: ***MS: Matrix Spike*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**SW846 8260B Purgeable VOCs by GC/MS**						**X01536-005**	
XG.2001.1843.5	75-34-3	1,1 Dichloroethene	116	% Recovery		1	NA		12-23-01
XG.2001.1843.5	106-46-7	1,4 Dichlorobenzene	105	% Recovery		1	NA		12-23-01
2001.1843.5	71-43-2	Benzene	111	% Recovery		1	NA		12-23-01
XG.2001.1843.5	108-90-7	Chlorobenzene	119	% Recovery		1	NA		12-23-01

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **HWSF EVAPORATION TANK**
Order: **0112364 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MS: Matrix Spike*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**SW846 8260B Purgeable VOCs by GC/MS**						**X01536-005**	
XG.2001.1843.5	108-88-3	Toluene	117	% Recovery		1	NA		12-23-01
XG.2001.1843.5	79-01-6	Trichloroethene	113	% Recovery		1	NA		12-23-01

Type: ***MS: Matrix Spike*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01549		**SW846 8260B Purgeable VOCs by GC/MS**						**X01549-005**	
XG.2002.7.5	75-34-3	1,1 Dichloroethene	127	% Recovery		1	NA		12-28-01
XG.2002.7.5	106-46-7	1,4 Dichlorobenzene	109	% Recovery		1	NA		12-28-01
XG.2002.7.5	71-43-2	Benzene	121	% Recovery		1	NA		12-28-01
XG.2002.7.5	108-90-7	Chlorobenzene	112	% Recovery		1	NA		12-28-01
XG.2002.7.5	108-88-3	Toluene	113	% Recovery		1	NA		12-28-01
XG.2002.7.5	79-01-6	Trichloroethene	118	% Recovery		1	NA		12-28-01

Type: ***MSD: Matrix Spike Duplicate Precision*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**SW846 8260B Purgeable VOCs by GC/MS**						**X01536-006**	
XG.2001.1843.6	75-34-3	1,1 Dichloroethene	4	RPD		1	NA		12-23-01
XG.2001.1843.6	106-46-7	1,4 Dichlorobenzene	< 1	RPD		1	NA		12-23-01
XG.2001.1843.6	71-43-2	Benzene	4	RPD		1	NA		12-23-01
XG.2001.1843.6	108-90-7	Chlorobenzene	3	RPD		1	NA		12-23-01
XG.2001.1843.6	108-88-3	Toluene	3	RPD		1	NA		12-23-01
XG.2001.1843.6	79-01-6	Trichloroethene	4	RPD		1	NA		12-23-01

Type: ***MSD: Matrix Spike Duplicate Precision*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01549		**SW846 8260B Purgeable VOCs by GC/MS**						**X01549-006**	
XG.2002.7.6	75-34-3	1,1 Dichloroethene	1	RPD		1	NA		12-28-01
XG.2002.7.6	106-46-7	1,4 Dichlorobenzene	5	RPD		1	NA		12-28-01
XG.2002.7.6	71-43-2	Benzene	5	RPD		1	NA		12-28-01
XG.2002.7.6	108-90-7	Chlorobenzene	2	RPD		1	NA		12-28-01
XG.2002.7.6	108-88-3	Toluene	< 1	RPD		1	NA		12-28-01
XG.2002.7.6	79-01-6	Trichloroethene	2	RPD		1	NA		12-28-01

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **HWSF EVAPORATION TANK**
Order: **0112364 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MSD: Matrix Spike Duplicate Accuracy*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**SW846 8260B Purgeable VOCs by GC/MS**						**X01536-006**	
XG.2001.1843.6	75-34-3	1,1 Dichloroethene	112	% Recovery		1	NA		12-23-01
XG.2001.1843.6	106-46-7	1,4 Dichlorobenzene	104	% Recovery		1	NA		12-23-01
XG.2001.1843.6	71-43-2	Benzene	106	% Recovery		1	NA		12-23-01
XG.2001.1843.6	108-90-7	Chlorobenzene	115	% Recovery		1	NA		12-23-01
XG.2001.1843.6	108-88-3	Toluene	113	% Recovery		1	NA		12-23-01
XG.2001.1843.6	79-01-6	Trichloroethene	109	% Recovery		1	NA		12-23-01

Type: ***MSD: Matrix Spike Duplicate Accuracy*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01549		**SW846 8260B Purgeable VOCs by GC/MS**						**X01549-006**	
XG.2002.7.6	75-34-3	1,1 Dichloroethene	125	% Recovery		1	NA		12-28-01
XG.2002.7.6	106-46-7	1,4 Dichlorobenzene	104	% Recovery		1	NA		12-28-01
XG.2002.7.6	71-43-2	Benzene	115	% Recovery		1	NA		12-28-01
XG.2002.7.6	108-90-7	Chlorobenzene	110	% Recovery		1	NA		12-28-01
?002.7.6	108-88-3	Toluene	112	% Recovery		1	NA		12-28-01
..2002.7.6	79-01-6	Trichloroethene	116	% Recovery		1	NA		12-28-01

Assaigai Analytical Laboratories, Inc.

QC Surrogate Summary

Client: **MEVATEC CORPORATION**
Project: **HWSF EVAPORATION TANK**
Order: **0112364 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Sample: ***0112364-01A*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**VOA8260**						**X01536-018**	
XG.2002.15.2		1,2 Dichloroethane-D4 (SS)	103	% Recovery		1	NA		12-28-01
XG.2002.15.2		4-Bromofluorobenzene (SS)	99	% Recovery		1	NA		12-28-01
XG.2002.15.2		Dibromofluoromethane (SS)	102	% Recovery		1	NA		12-28-01
XG.2002.15.2		Toluene-D8 (SS)	99	% Recovery		1	NA		12-28-01

Sample: ***0112364-02A*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01549		**VOA8260**						**X01549-008**	
XG.2002.7.8		1,2 Dichloroethane-D4 (SS)	109	% Recovery		1	NA		12-28-01
XG.2002.7.8		4-Bromofluorobenzene (SS)	98	% Recovery		1	NA		12-28-01
XG.2002.7.8		Dibromofluoromethane (SS)	105	% Recovery		1	NA		12-28-01
XG.2002.7.8		Toluene-D8 (SS)	98	% Recovery		1	NA		12-28-01

Sample: ***0112364-03A*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**VOA8260**						**X01536-019**	
XG.2002.15.3		1,2 Dichloroethane-D4 (SS)	106	% Recovery		1	NA		12-28-01
XG.2002.15.3		4-Bromofluorobenzene (SS)	99	% Recovery		1	NA		12-28-01
XG.2002.15.3		Dibromofluoromethane (SS)	104	% Recovery		1	NA		12-28-01
XG.2002.15.3		Toluene-D8 (SS)	102	% Recovery		1	NA		12-28-01

Sample: ***0112364-04A*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**VOA8260**						**X01536-021**	
XG.2002.15.5		1,2 Dichloroethane-D4 (SS)	100	% Recovery		1	NA		12-31-01
XG.2002.15.5		4-Bromofluorobenzene (SS)	98	% Recovery		1	NA		12-31-01
XG.2002.15.5		Dibromofluoromethane (SS)	97	% Recovery		1	NA		12-31-01
XG.2002.15.5		Toluene-D8 (SS)	100	% Recovery		1	NA		12-31-01

Sample: ***0112364-05A*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**VOA8260**						**X01536-022**	
XG.2002.15.6		1,2 Dichloroethane-D4 (SS)	101	% Recovery		1	NA		1.
XG.2002.15.6		4-Bromofluorobenzene (SS)	102	% Recovery		1	NA		12-31-01

Assaigai Analytical Laboratories, Inc.

QC Surrogate Summary

Client: **MEVATEC CORPORATION**
ect: **HWSF EVAPORATION TANK**
Order: **0112364 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Sample: ***0112364-05A*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**VOA8260**						**X01536-022**	
XG.2002.15.6		Dibromofluoromethane (SS)	103	% Recovery		1	NA		12-31-01
XG.2002.15.6		Toluene-D8 (SS)	102	% Recovery		1	NA		12-31-01

Sample: ***0112364-06A*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**VOA8260**						**X01536-023**	
XG.2002.15.7		1,2 Dichloroethane-D4 (SS)	97	% Recovery		1	NA		12-31-01
XG.2002.15.7		4-Bromofluorobenzene (SS)	98	% Recovery		1	NA		12-31-01
XG.2002.15.7		Dibromofluoromethane (SS)	100	% Recovery		1	NA		12-31-01
XG.2002.15.7		Toluene-D8 (SS)	100	% Recovery		1	NA		12-31-01

Sample: ***0112364-07A*** Matrix: ***SOLID***

Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**VOA8260**						**X01536-024**	
XG.2002.15.8		1,2 Dichloroethane-D4 (SS)	97	% Recovery		1	NA		12-31-01
XG.2002.15.8		4-Bromofluorobenzene (SS)	101	% Recovery		1	NA		12-31-01
XG.2002.15.8		Dibromofluoromethane (SS)	99	% Recovery		1	NA		12-31-01
XG.2002.15.8		Toluene-D8 (SS)	100	% Recovery		1	NA		12-31-01

Sample: ***0112364-08A*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**VOA8260**						**X01536-025**	
XG.2002.15.9		1,2 Dichloroethane-D4 (SS)	94	% Recovery		1	NA		12-31-01
XG.2002.15.9		4-Bromofluorobenzene (SS)	98	% Recovery		1	NA		12-31-01
XG.2002.15.9		Dibromofluoromethane (SS)	98	% Recovery		1	NA		12-31-01
XG.2002.15.9		Toluene-D8 (SS)	99	% Recovery		1	NA		12-31-01

Sample: ***LCS*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**VOA8260**						**X01536-002**	
XG.2001.1843.2		1,2 Dichloroethane-D4 (SS)	101	% Recovery		1	NA		12-23-01
XG.2001.1843.2		4-Bromofluorobenzene (SS)	97	% Recovery		1	NA		12-23-01
001.1843.2		Dibromofluoromethane (SS)	99	% Recovery		1	NA		12-23-01
2001.1843.2		Toluene-D8 (SS)	102	% Recovery		1	NA		12-23-01

Assaigai Analytical Laboratories, Inc.

QC Surrogate Summary

Client: **MEVATEC CORPORATION**
Project: **HWSF EVAPORATION TANK**
Order: **0112364 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Sample: ***LCS*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01549		**VOA8260**						**X01549-002**	
XG.2002.7.2		1,2 Dichloroethane-D4 (SS)	112	% Recovery		1	NA		12-28-01
XG.2002.7.2		4-Bromofluorobenzene (SS)	96	% Recovery		1	NA		12-28-01
XG.2002.7.2		Dibromofluoromethane (SS)	107	% Recovery		1	NA		12-28-01
XG.2002.7.2		Toluene-D8 (SS)	101	% Recovery		1	NA		12-28-01

Sample: ***LCSD*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**VOA8260**						**X01536-003**	
XG.2001.1843.3		1,2 Dichloroethane-D4 (SS)	100	% Recovery		1	NA		12-23-01
XG.2001.1843.3		4-Bromofluorobenzene (SS)	96	% Recovery		1	NA		12-23-01
XG.2001.1843.3		Dibromofluoromethane (SS)	98	% Recovery		1	NA		12-23-01
XG.2001.1843.3		Toluene-D8 (SS)	103	% Recovery		1	NA		12-23-01

Sample: ***LCSD*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01549		**VOA8260**						**X01549-003**	
XG.2002.7.3		1,2 Dichloroethane-D4 (SS)	106	% Recovery		1	NA		12-28-01
XG.2002.7.3		4-Bromofluorobenzene (SS)	97	% Recovery		1	NA		12-28-01
XG.2002.7.3		Dibromofluoromethane (SS)	106	% Recovery		1	NA		12-28-01
XG.2002.7.3		Toluene-D8 (SS)	102	% Recovery		1	NA		12-28-01

Sample: ***MB*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**VOA8260**						**X01536-001**	
XG.2001.1843.1		1,2 Dichloroethane-D4 (SS)	99	% Recovery		1	NA		12-23-01
XG.2001.1843.1		4-Bromofluorobenzene (SS)	95	% Recovery		1	NA		12-23-01
XG.2001.1843.1		Dibromofluoromethane (SS)	100	% Recovery		1	NA		12-23-01
XG.2001.1843.1		Toluene-D8 (SS)	102	% Recovery		1	NA		12-23-01
X01536		**VOA8260**						**X01536-010**	
XG.2001.1845.1		1,2 Dichloroethane-D4 (SS)	99	% Recovery		1	NA		12-24-01
XG.2001.1845.1		4-Bromofluorobenzene (SS)	100	% Recovery		1	NA		12-24-01
XG.2001.1845.1		Dibromofluoromethane (SS)	103	% Recovery		1	NA		12-24-01
XG.2001.1845.1		Toluene-D8 (SS)	101	% Recovery		1	NA		12-24-01
X01536		**VOA8260**						**X01536-017**	
XG.2002.15.1		1,2 Dichloroethane-D4 (SS)	104	% Recovery		1	NA		[illegible]
XG.2002.15.1		4-Bromofluorobenzene (SS)	100	% Recovery		1	NA		[illegible]

Assaigai Analytical Laboratories, Inc.

QC Surrogate Summary

Client: **MEVATEC CORPORATION**
Project: **HWSF EVAPORATION TANK**
Order: **0112364 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Sample: ***MB*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**VOA8260**						**X01536-017**	
XG.2002.15.1		Dibromofluoromethane (SS)	104	% Recovery		1	NA		12-28-01
XG.2002.15.1		Toluene-D8 (SS)	102	% Recovery		1	NA		12-28-01
X01536		**VOA8260**						**X01536-020**	
XG.2002.15.4		1,2 Dichloroethane-D4 (SS)	113	% Recovery		1	NA		12-31-01
XG.2002.15.4		4-Bromofluorobenzene (SS)	101	% Recovery		1	NA		12-31-01
XG.2002.15.4		Dibromofluoromethane (SS)	107	% Recovery		1	NA		12-31-01
XG.2002.15.4		Toluene-D8 (SS)	102	% Recovery		1	NA		12-31-01
X01536		**VOA8260**						**X01536-026**	
XG.2002.15.10		1,2 Dichloroethane-D4 (SS)	104	% Recovery		1	NA		01-02-02
XG.2002.15.10		4-Bromofluorobenzene (SS)	101	% Recovery		1	NA		01-02-02
XG.2002.15.10		Dibromofluoromethane (SS)	105	% Recovery		1	NA		01-02-02
XG.2002.15.10		Toluene-D8 (SS)	101	% Recovery		1	NA		01-02-02

Sample: ***MB*** Matrix: ***WATER***

Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01549		**VOA8260**						**X01549-001**	
XG.2002.7.1		1,2 Dichloroethane-D4 (SS)	110	% Recovery		1	NA		12-28-01
XG.2002.7.1		4-Bromofluorobenzene (SS)	99	% Recovery		1	NA		12-28-01
XG.2002.7.1		Dibromofluoromethane (SS)	107	% Recovery		1	NA		12-28-01
XG.2002.7.1		Toluene-D8 (SS)	103	% Recovery		1	NA		12-28-01

Sample: ***MS*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**VOA8260**						**X01536-005**	
XG.2001.1843.5		1,2 Dichloroethane-D4 (SS)	102	% Recovery		1	NA		12-23-01
XG.2001.1843.5		4-Bromofluorobenzene (SS)	98	% Recovery		1	NA		12-23-01
XG.2001.1843.5		Dibromofluoromethane (SS)	80	% Recovery		1	NA		12-23-01
XG.2001.1843.5		Toluene-D8 (SS)	103	% Recovery		1	NA		12-23-01

Sample: ***MS*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01549		**VOA8260**						**X01549-005**	
XG.2002.7.5		1,2 Dichloroethane-D4 (SS)	112	% Recovery		1	NA		12-28-01
XG.2002.7.5		4-Bromofluorobenzene (SS)	96	% Recovery		1	NA		12-28-01
[illegible]002.7.5		Dibromofluoromethane (SS)	108	% Recovery		1	NA		12-28-01
[illegible].002.7.5		Toluene-D8 (SS)	102	% Recovery		1	NA		12-28-01

Assaigai Analytical Laboratories, Inc.

QC Surrogate Summary

Client: **MEVATEC CORPORATION**
Project: **HWSF EVAPORATION TANK**
Order: **0112364 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Sample: ***MSD*** Matrix: ***SOLID***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01536		**VOA8260**						**X01536-006**	
XG.2001.1843.6		1,2 Dichloroethane-D4 (SS)	101	% Recovery		1	NA		12-23-01
XG.2001.1843.6		4-Bromofluorobenzene (SS)	99	% Recovery		1	NA		12-23-01
XG.2001.1843.6		Dibromofluoromethane (SS)	83	% Recovery		1	NA		12-23-01
XG.2001.1843.6		Toluene-D8 (SS)	103	% Recovery		1	NA		12-23-01

Sample: ***MSD*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01549		**VOA8260**						**X01549-006**	
XG.2002.7.6		1,2 Dichloroethane-D4 (SS)	111	% Recovery		1	NA		12-28-01
XG.2002.7.6		4-Bromofluorobenzene (SS)	98	% Recovery		1	NA		12-28-01
XG.2002.7.6		Dibromofluoromethane (SS)	106	% Recovery		1	NA		12-28-01
XG.2002.7.6		Toluene-D8 (SS)	102	% Recovery		1	NA		12-28-01

01 364 by check or credit card
Assigned will pay upon receipt of invoice

MEVATEC CORPORATION
P.O. Box 399
Bldg. 126
WSMR, NM 88002
(505) 678-0263

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NO.: 5049
PROJECT NAME: HWSF Evaporation Tank
SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	8260	REMARKS
12-17-01	1410	HWSF-SB10-(11.0-12.0)-QA	Soil	402 UOH	1	X	
12-17-01	1512	HWSF-TB-01-QA	Aqueous	4 ML VOA vial	2	X	Trip Blank
12-18-01	1231	HWSF-SB06-(3.0-4.0)-QA	Soil	402 UOH	1	X	
12-18-01	1457	HWSF-SB07-(24.0-25.0)-QA	Soil	402 UOH	1	X	
12-19-01	1331	HWSF-SB03-(24.0-25.0)-QA	Soil	402 UOH	1	X	
12-19-01	1600	HWSF-SB01-(11.0-12.0)-QA	Soil	402 UOH	1	X	
12-19-01	0805	HWSF-SB12-(11.0-12.0)-QA	Soil	402 UOH	1	X	
12-19-01	1135	HWSF-SB04-(11.0-12.0)-QA	Soil	402 UOH	1	X	

PROJECT INFORMATION			1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER: William Little	SAMPLES RECEIVED		(PRINTED NAME): Greg Matson	(PRINTED NAME): William Little	(PRINTED NAME)
SHIPPING ID. NO.	TOTAL NO. OF CONTAINERS		RECEIVED BY: Raymond Lapicand	RECEIVED BY:	(COMPANY)
	CHAIN OF CUSTODY SEALS		(TIME / DATE) 3:53 12/20/01	(TIME / DATE) 12/21/01 10:30	(TIME / DATE)
VIA: Lab Courier	GOOD CONDITION/CHILLED		SPECIAL INSTRUCTIONS / COMMENTS: Refer to Scope of Work for required DL's.		
	CONFORMS TO RECORD				

PLEASE USE BALL POINT PEN

DISTRIBUTION: WHITE - PROJECT FILES; YELLOW - LAB; PINK - FIELD COPY

ASSAIGAI
ANALYTICAL
LABORATORIES, INC.
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3332 Wedgewood Dr., Suite N • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820
127 Eastgate Drive, 212-C • Los Alamos, New Mexico 87544 • (505) 662-2558

Explanation of codes	
B	analyte detected in Method Blank
E	result is estimated
H	analyzed out of hold time
N	tentatively identified compound
S	subcontracted
1-9	see footnote

MEVATEC CORPORATION
attn: **WILLIAM LITTLE/GREG WATERSON**
PO BOX 399, BLDG 126
WSMR NM 88002

STANDARD

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

ORIGINAL

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E** Receipt: **12-13-01**

William P. Biava: President of Assaigai Analytical Laboratories, Inc.
For

Sample: ***HWSF-TW03-1201-QA*** Collected: *12-12-01 13:42:00* By: *GW*
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0112234-01A		**SW846 8260B Purgeable VOCs by GC/MS**					By:	JDR		
X01520	XG.2001.1819.9	75-34-3	1,1 Dichloroethane	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	75-34-3	1,1 Dichloroethene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	71-55-6	1,1,1 Trichloroethane	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	79-00-5	1,1,2 Trichloroethane	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	95-50-1	1,2 Dichlorobenzene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	78-87-5	1,2 Dichloropropane	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	96-18-4	1,2,3 Trichloropropane	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1825.4	95-63-6	1,2,4-Trimethylbenzene	ND	ug / L	1	1		12-19-01	12-19-01
X01520	XG.2001.1819.9	541-73-1	1,3 Dichlorobenzene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1825.4	108-67-8	1,3,5-Trimethylbenzene	1.1	ug / L	1	1		12-19-01	12-19-01
X01520	XG.2001.1819.9	764-41-0	1,4 Dichloro-2-butene	ND	ug / L	1	10		12-18-01	12-18-01
X01520	XG.2001.1819.9	106-46-7	1,4 Dichlorobenzene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	90-12-0	1-Methylnaphthalene	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.9	78-93-3	2-Butanone (MEK)	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.9	110-75-8	2-Chloroethylvinylether	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.9	591-78-6	2-Hexanone (MBK)	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.9	91-57-6	2-Methylnaphthalene	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.9	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L	1	5		12-18-01	12-18-01
20	XG.2001.1819.9	67-64-1	Acetone	ND	ug / L	1	10		12-18-01	12-18-01
X01520	XG.2001.1819.9	107-02-8	Acrolein	ND	ug / L	1	20		12-18-01	12-18-01

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Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

ORIGINAL

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234** **MEVA1E** Receipt: **12-13-01**

Sample: ***HWSF-TW03-1201-QA*** Collected: *12-12-01 13:42:00* By: *GW*
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0112234-01A		**SW846 8260B Purgeable VOCs by GC/MS**					By:	JDR		
X01520	XG.2001.1819.9	107-13-1	Acrylonitrile	ND	ug / L	1	20		12-18-01	12-18-01
X01520	XG.2001.1819.9	71-43-2	Benzene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	75-27-4	Bromodichloromethane	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	75-25-2	Bromoform	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	74-83-9	Bromomethane	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.9	75-15-0	Carbon disulfide	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.9	56-23-5	Carbon tetrachloride	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	108-90-7	Chlorobenzene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	124-48-1	Chlorodibromomethane	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	75-00-3	Chloroethane	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.9	67-66-3	Chloroform	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	74-87-3	Chloromethane	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.9	156-59-2	cis-1,2 dichloroethene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	10061-01-5	cis-1,3 dichloropropene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	74-95-3	Dibromomethane	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	97-63-2	Ethyl methacrylate	ND	ug / L	1	5		12-18-01	[illegible]
X01520	XG.2001.1819.9	100-41-4	Ethylbenzene	ND	ug / L	1	1		12-18-01	[illegible]
X01520	XG.2001.1819.9		Freon 113	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.9	75-71-8	Freon 12	ND	ug / L	1	10		12-18-01	12-18-01
X01520	XG.2001.1819.9	74-88-4	Iodomethane	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.9	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	75-09-2	Methylene chloride	ND	ug / L	1	10		12-18-01	12-18-01
X01520	XG.2001.1819.9	91-20-3	Naphthalene	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.9	95-47-6	o-Xylene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	108-38-3/106-42	p/m Xylenes	ND	ug / L	1	2		12-18-01	12-18-01
X01520	XG.2001.1819.9	100-42-5	Styrene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	156-60-5	t-1,2 Dichloroethene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	10061-02-6	t-1,3 Dichloropropene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	127-18-4	Tetrachloroethene (PCE)	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	108-88-3	Toluene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	79-01-6	Trichloroethene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.9	75-69-4	Trichlorofluoromethane	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.9	108-05-4	Vinyl acetate	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.9	75-01-4	Vinyl chloride	ND	ug / L	1	5		12-18-01	12-18-01
0112234-01C		**EPA 150.1**					By:	LG		
EWPH01160	TT.2001.3256.1		pH	7.0	units	1	0.1		12-13-01	12-13-01
0112234-01C		**EPA 160.1**					By:	NL		
TD0166	TT.2001.3299.8		Total Dissolved Solids	13400	mg / L	1	10		12-19-01	12-19-01
0112234-01D		**EPA 120.1**					By:	DH		
CON0149	TT.2001.3325.4		Conductivity	15800	umhos/cm	1	1		12-27-01	[illegible]

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

ORIGINAL

Client: **MEVATEC CORPORATION**

Project: **800A9 HWSF EVAPORATION TANK**

Order: **0112234** **MEVA1E** Receipt: **12-13-01**

Sample: ***HWSF-TW03-1201-QA-TB*** Collected: *12-12-01 13:42:00* By: *GW*

Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0112234-02A		**SW846 8260B Purgeable VOCs by GC/MS**					By:	JDR		
X01520	XG.2001.1819.10	75-34-3	1,1 Dichloroethane	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	75-34-3	1,1 Dichloroethene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	71-55-6	1,1,1 Trichloroethane	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	79-00-5	1,1,2 Trichloroethane	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	95-50-1	1,2 Dichlorobenzene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	78-87-5	1,2 Dichloropropane	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	96-18-4	1,2,3 Trichloropropane	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	95-63-6	1,2,4-Trimethylbenzene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	541-73-1	1,3 Dichlorobenzene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1825.5	108-67-8	1,3,5-Trimethylbenzene	ND	ug / L	1	1		12-19-01	12-19-01
X01520	XG.2001.1819.10	764-41-0	1,4 Dichloro-2-butene	ND	ug / L	1	10		12-18-01	12-18-01
[illegible]20	XG.2001.1819.10	106-46-7	1,4 Dichlorobenzene	ND	ug / L	1	1		12-18-01	12-18-01
[illegible]520	XG.2001.1819.10	90-12-0	1-Methylnaphthalene	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.10	78-93-3	2-Butanone (MEK)	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.10	110-75-8	2-Chloroethylvinylether	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.10	591-78-6	2-Hexanone (MBK)	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.10	91-57-6	2-Methylnaphthalene	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.10	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.10	67-64-1	Acetone	ND	ug / L	1	10		12-18-01	12-18-01
X01520	XG.2001.1819.10	107-02-8	Acrolein	ND	ug / L	1	20		12-18-01	12-18-01
X01520	XG.2001.1819.10	107-13-1	Acrylonitrile	ND	ug / L	1	20		12-18-01	12-18-01
X01520	XG.2001.1819.10	71-43-2	Benzene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	75-27-4	Bromodichloromethane	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	75-25-2	Bromoform	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	74-83-9	Bromomethane	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.10	75-15-0	Carbon disulfide	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.10	56-23-5	Carbon tetrachloride	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	108-90-7	Chlorobenzene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	124-48-1	Chlorodibromomethane	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	75-00-3	Chloroethane	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.10	67-66-3	Chloroform	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	74-87-3	Chloromethane	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.10	156-59-2	cis-1,2 dichloroethene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	10061-01-5	cis-1,3 dichloropropene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	74-95-3	Dibromomethane	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	97-63-2	Ethyl methacrylate	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.10	100-41-4	Ethylbenzene	ND	ug / L	1	1		12-18-01	12-18-01
[illegible]20	XG.2001.1819.10		Freon 113	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.10	75-71-8	Freon 12	ND	ug / L	1	10		12-18-01	12-18-01

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234** **MEVA1E** Receipt: **12-13-01**

ORIGINAL

Sample: ***HWSF-TW03-1201-QA-TB*** Collected: *12-12-01 13:42:00* By: *GW*
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0112234-02A		**SW846 8260B Purgeable VOCs by GC/MS**					By:	JDR		
X01520	XG.2001.1819.10	74-88-4	Iodomethane	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.10	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	75-09-2	Methylene chloride	ND	ug / L	1	10		12-18-01	12-18-01
X01520	XG.2001.1819.10	91-20-3	Naphthalene	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.10	95-47-6	o-Xylene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	108-38-3/106-42	p/m Xylenes	ND	ug / L	1	2		12-18-01	12-18-01
X01520	XG.2001.1819.10	100-42-5	Styrene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	156-60-5	t-1,2 Dichloroethene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	10061-02-6	t-1,3 Dichloropropene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	127-18-4	Tetrachloroethene (PCE)	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	108-88-3	Toluene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	79-01-6	Trichloroethene	ND	ug / L	1	1		12-18-01	12-18-01
X01520	XG.2001.1819.10	75-69-4	Trichlorofluoromethane	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.10	108-05-4	Vinyl acetate	ND	ug / L	1	5		12-18-01	12-18-01
X01520	XG.2001.1819.10	75-01-4	Vinyl chloride	ND	ug / L	1	5		12-18-01	12-18-01

Unless otherwise noted, all samples were received in acceptable condition and all sampling was performed by client or client representative. Sample result of ND indicates Not Detected, ie result is less than the sample specific Detection Limit. Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. All results relate only to the items tested. Any miscellaneous workorder information or foonotes will appear below.

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***LCS: Lab Control Spike*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
CON0149		**EPA 120.1**						**01.3325-2**	
TT.2001.3325.2		Conductivity	90	% Recovery		1	NA		12-27-01
TD0166		**EPA 160.1**						**01.3299-2**	
TT.2001.3299.2		Total Dissolved Solids	100	% Recovery		1	NA		12-19-01
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-002**	
XG.2001.1829.2	75-34-3	1,1 Dichloroethene	115	% Recovery		1	NA		12-12-01
XG.2001.1829.2	106-46-7	1,4 Dichlorobenzene	106	% Recovery		1	NA		12-12-01
XG.2001.1829.2	71-43-2	Benzene	109	% Recovery		1	NA		12-12-01
XG.2001.1829.2	108-90-7	Chlorobenzene	118	% Recovery		1	NA		12-12-01
XG.2001.1829.2	108-88-3	Toluene	115	% Recovery		1	NA		12-12-01
XG.2001.1829.2	79-01-6	Trichloroethene	113	% Recovery		1	NA		12-12-01

Type: ***LCSD: Lab Control Spike Duplicate Precision*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
N0149		**EPA 120.1**						**01.3325-3**	
TT.2001.3325.3		Conductivity	17	RPD		1	NA		12-27-01
TD0166		**EPA 160.1**						**01.3299-3**	
TT.2001.3299.3		Total Dissolved Solids	< 1	RPD		1	NA		12-19-01
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-003**	
XG.2001.1829.3	75-34-3	1,1 Dichloroethene	6	RPD		1	NA		12-12-01
XG.2001.1829.3	106-46-7	1,4 Dichlorobenzene	2	RPD		1	NA		12-12-01
XG.2001.1829.3	71-43-2	Benzene	3	RPD		1	NA		12-12-01
XG.2001.1829.3	108-90-7	Chlorobenzene	4	RPD		1	NA		12-12-01
XG.2001.1829.3	108-88-3	Toluene	6	RPD		1	NA		12-12-01
XG.2001.1829.3	79-01-6	Trichloroethene	4	RPD		1	NA		12-12-01

Type: ***LCSD: Lab Control Spike Duplicate Accuracy*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
CON0149		**EPA 120.1**						**01.3325-3**	
TT.2001.3325.3		Conductivity	106	% Recovery		1	NA		12-27-01
TD0166		**EPA 160.1**						**01.3299-3**	
TT.2001.3299.3		Total Dissolved Solids	100	% Recovery		1	NA		12-19-01
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-003**	
XG.2001.1829.3	75-34-3	1,1 Dichloroethene	108	% Recovery		1	NA		12-12-01
XG.2001.1829.3	106-46-7	1,4 Dichlorobenzene	104	% Recovery		1	NA		12-12-01
2001.1829.3	71-43-2	Benzene	105	% Recovery		1	NA		12-12-01
XG.2001.1829.3	108-90-7	Chlorobenzene	113	% Recovery		1	NA		12-12-01

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***LCSD: Lab Control Spike Duplicate Accuracy*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-003**	
XG.2001.1829.3	108-88-3	Toluene	108	% Recovery		1	NA		12-12-01
XG.2001.1829.3	79-01-6	Trichloroethene	109	% Recovery		1	NA		12-12-01

Type: ***MB: Method Blank*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
CON0149		**EPA 120.1**						**01.3325-1**	
TT.2001.3325.1		Conductivity	ND	umhos/cm		1	1		12-27-01
TD0166		**EPA 160.1**						**01.3299-1**	
TT.2001.3299.1		Total Dissolved Solids	ND	mg / L		1	10		12-19-01
TD0166		**EPA 160.1**						**01.3299-12**	
TT.2001.3299.12		Total Dissolved Solids	ND	mg / L		1	10		12-20-01
TD0166		**EPA 160.1**						**01.3324-1**	
TT.2001.3324.1		Total Dissolved Solids	ND	mg / L		1	10		1[illegible]
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-001**	
XG.2001.1829.1	75-34-3	1,1 Dichloroethane	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	75-34-3	1,1 Dichloroethene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	71-55-6	1,1,1 Trichloroethane	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	79-00-5	1,1,2 Trichloroethane	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	95-50-1	1,2 Dichlorobenzene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	78-87-5	1,2 Dichloropropane	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	96-18-4	1,2,3 Trichloropropane	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	95-63-6	1,2,4-Trimethylbenzene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	541-73-1	1,3 Dichlorobenzene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	108-67-8	1,3,5-Trimethylbenzene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	764-41-0	1,4 Dichloro-2-butene	ND	ug / L		1	10		12-12-01
XG.2001.1829.1	106-46-7	1,4 Dichlorobenzene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	90-12-0	1-Methylnaphthalene	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	78-93-3	2-Butanone (MEK)	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	110-75-8	2-Chloroethylvinylether	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	591-78-6	2-Hexanone (MBK)	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	91-57-6	2-Methylnaphthalene	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	67-64-1	Acetone	ND	ug / L		1	10		12-12-01
XG.2001.1829.1	107-02-8	Acrolein	ND	ug / L		1	20		1[illegible]
XG.2001.1829.1	107-13-1	Acrylonitrile	ND	ug / L		1	20		12-[illegible]

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-001**	
XG.2001.1829.1	71-43-2	Benzene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	75-27-4	Bromodichloromethane	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	75-25-2	Bromoform	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	74-83-9	Bromomethane	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	75-15-0	Carbon disulfide	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	56-23-5	Carbon tetrachloride	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	108-90-7	Chlorobenzene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	124-48-1	Chlorodibromomethane	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	75-00-3	Chloroethane	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	67-66-3	Chloroform	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	74-87-3	Chloromethane	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	156-59-2	cis-1,2 dichloroethene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	10061-01-5	cis-1,3 dichloropropene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	74-95-3	Dibromomethane	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	97-63-2	Ethyl methacrylate	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	100-41-4	Ethylbenzene	ND	ug / L		1	1		12-12-01
2001.1829.1		Freon 113	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	75-71-8	Freon 12	ND	ug / L		1	10		12-12-01
XG.2001.1829.1	74-88-4	Iodomethane	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	75-09-2	Methylene chloride	ND	ug / L		1	10		12-12-01
XG.2001.1829.1	91-20-3	Naphthalene	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	95-47-6	o-Xylene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	108-38-3/106-42	p/m Xylenes	ND	ug / L		1	2		12-12-01
XG.2001.1829.1	100-42-5	Styrene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	156-60-5	t-1,2 Dichloroethene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	10061-02-6	t-1,3 Dichloropropene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	127-18-4	Tetrachloroethene (PCE)	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	108-88-3	Toluene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	79-01-6	Trichloroethene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	75-69-4	Trichlorofluoromethane	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	108-05-4	Vinyl acetate	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	75-01-4	Vinyl chloride	ND	ug / L		1	5		12-12-01
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-015**	
XG.2001.1801.1	75-34-3	1,1 Dichloroethane	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	75-34-3	1,1 Dichloroethene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	71-55-6	1,1,1 Trichloroethane	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	79-00-5	1,1,2 Trichloroethane	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L		1	1		12-14-01
2001.1801.1	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L		1	1		12-14-01
2001.1801.1	95-50-1	1,2 Dichlorobenzene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L		1	1		12-14-01

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-015**	
XG.2001.1801.1	78-87-5	1,2 Dichloropropane	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	96-18-4	1,2,3 Trichloropropane	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	95-63-6	1,2,4-Trimethylbenzene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	541-73-1	1,3 Dichlorobenzene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	108-67-8	1,3,5-Trimethylbenzene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	764-41-0	1,4 Dichloro-2-butene	ND	ug / L		1	10		12-14-01
XG.2001.1801.1	106-46-7	1,4 Dichlorobenzene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	90-12-0	1-Methylnaphthalene	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	78-93-3	2-Butanone (MEK)	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	110-75-8	2-Chloroethylvinylether	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	591-78-6	2-Hexanone (MBK)	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	91-57-6	2-Methylnaphthalene	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	67-64-1	Acetone	ND	ug / L		1	10		12-14-01
XG.2001.1801.1	107-02-8	Acrolein	ND	ug / L		1	20		12-14-01
XG.2001.1801.1	107-13-1	Acrylonitrile	ND	ug / L		1	20		12-14-01
XG.2001.1801.1	71-43-2	Benzene	ND	ug / L		1	1		1
XG.2001.1801.1	75-27-4	Bromodichloromethane	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	75-25-2	Bromoform	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	74-83-9	Bromomethane	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	75-15-0	Carbon disulfide	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	56-23-5	Carbon tetrachloride	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	108-90-7	Chlorobenzene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	124-48-1	Chlorodibromomethane	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	75-00-3	Chloroethane	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	67-66-3	Chloroform	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	74-87-3	Chloromethane	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	156-59-2	cis-1,2 dichloroethene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	10061-01-5	cis-1,3 dichloropropene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	74-95-3	Dibromomethane	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	97-63-2	Ethyl methacrylate	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	100-41-4	Ethylbenzene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1		Freon 113	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	75-71-8	Freon 12	ND	ug / L		1	10		12-14-01
XG.2001.1801.1	74-88-4	Iodomethane	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	75-09-2	Methylene chloride	ND	ug / L		1	10		12-14-01
XG.2001.1801.1	91-20-3	Naphthalene	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	95-47-6	o-Xylene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	108-38-3/106-42	p/m Xylenes	ND	ug / L		1	2		12-14-01
XG.2001.1801.1	100-42-5	Styrene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	156-60-5	t-1,2 Dichloroethene	ND	ug / L		1	1		1
XG.2001.1801.1	10061-02-6	t-1,3 Dichloropropene	ND	ug / L		1	1		12-14-01

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-015**	
XG.2001.1801.1	127-18-4	Tetrachloroethene (PCE)	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	108-88-3	Toluene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	79-01-6	Trichloroethene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	75-69-4	Trichlorofluoromethane	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	108-05-4	Vinyl acetate	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	75-01-4	Vinyl chloride	ND	ug / L		1	5		12-14-01
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-020**	
XG.2001.1806.1	75-34-3	1,1 Dichloroethane	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	75-34-3	1,1 Dichloroethene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	71-55-6	1,1,1 Trichloroethane	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	79-00-5	1,1,2 Trichloroethane	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	95-50-1	1,2 Dichlorobenzene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	78-87-5	1,2 Dichloropropane	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	96-18-4	1,2,3 Trichloropropane	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	95-63-6	1,2,4-Trimethylbenzene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	541-73-1	1,3 Dichlorobenzene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	108-67-8	1,3,5-Trimethylbenzene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	764-41-0	1,4 Dichloro-2-butene	ND	ug / L		1	10		12-17-01
XG.2001.1806.1	106-46-7	1,4 Dichlorobenzene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	90-12-0	1-Methylnaphthalene	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	78-93-3	2-Butanone (MEK)	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	110-75-8	2-Chloroethylvinylether	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	591-78-6	2-Hexanone (MBK)	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	91-57-6	2-Methylnaphthalene	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	67-64-1	Acetone	ND	ug / L		1	10		12-17-01
XG.2001.1806.1	107-02-8	Acrolein	ND	ug / L		1	20		12-17-01
XG.2001.1806.1	107-13-1	Acrylonitrile	ND	ug / L		1	20		12-17-01
XG.2001.1806.1	71-43-2	Benzene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	75-27-4	Bromodichloromethane	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	75-25-2	Bromoform	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	74-83-9	Bromomethane	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	75-15-0	Carbon disulfide	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	56-23-5	Carbon tetrachloride	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	108-90-7	Chlorobenzene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	124-48-1	Chlorodibromomethane	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	75-00-3	Chloroethane	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	67-66-3	Chloroform	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	74-87-3	Chloromethane	ND	ug / L		1	5		12-17-01

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-020**	
XG.2001.1806.1	156-59-2	cis-1,2 dichloroethene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	10061-01-5	cis-1,3 dichloropropene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	74-95-3	Dibromomethane	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	97-63-2	Ethyl methacrylate	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	100-41-4	Ethylbenzene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1		Freon 113	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	75-71-8	Freon 12	ND	ug / L		1	10		12-17-01
XG.2001.1806.1	74-88-4	Iodomethane	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	75-09-2	Methylene chloride	ND	ug / L		1	10		12-17-01
XG.2001.1806.1	91-20-3	Naphthalene	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	95-47-6	o-Xylene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	108-38-3/106-42	p/m Xylenes	ND	ug / L		1	2		12-17-01
XG.2001.1806.1	100-42-5	Styrene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	156-60-5	t-1,2 Dichloroethene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	10061-02-6	t-1,3 Dichloropropene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	127-18-4	Tetrachloroethene (PCE)	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	108-88-3	Toluene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	79-01-6	Trichloroethene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	75-69-4	Trichlorofluoromethane	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	108-05-4	Vinyl acetate	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	75-01-4	Vinyl chloride	ND	ug / L		1	5		12-17-01
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-025**	
XG.2001.1819.5	75-34-3	1,1 Dichloroethane	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	75-34-3	1,1 Dichloroethene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	71-55-6	1,1,1 Trichloroethane	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	79-00-5	1,1,2 Trichloroethane	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	95-50-1	1,2 Dichlorobenzene	1.0	ug / L		1	1		12-18-01
XG.2001.1819.5	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	78-87-5	1,2 Dichloropropane	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	96-18-4	1,2,3 Trichloropropane	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	95-63-6	1,2,4-Trimethylbenzene	3.0	ug / L		1	1		12-18-01
XG.2001.1819.5	541-73-1	1,3 Dichlorobenzene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	108-67-8	1,3,5-Trimethylbenzene	7.5	ug / L		1	1		12-18-01
XG.2001.1819.5	764-41-0	1,4 Dichloro-2-butene	ND	ug / L		1	10		12-18-01
XG.2001.1819.5	106-46-7	1,4 Dichlorobenzene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	90-12-0	1-Methylnaphthalene	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	78-93-3	2-Butanone (MEK)	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	110-75-8	2-Chloroethylvinylether	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	591-78-6	2-Hexanone (MBK)	ND	ug / L		1	5		12-18-01

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-025**	
XG.2001.1819.5	91-57-6	2-Methylnaphthalene	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	67-64-1	Acetone	ND	ug / L		1	10		12-18-01
XG.2001.1819.5	107-02-8	Acrolein	ND	ug / L		1	20		12-18-01
XG.2001.1819.5	107-13-1	Acrylonitrile	ND	ug / L		1	20		12-18-01
XG.2001.1819.5	71-43-2	Benzene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	75-27-4	Bromodichloromethane	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	75-25-2	Bromoform	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	74-83-9	Bromomethane	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	75-15-0	Carbon disulfide	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	56-23-5	Carbon tetrachloride	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	108-90-7	Chlorobenzene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	124-48-1	Chlorodibromomethane	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	75-00-3	Chloroethane	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	67-66-3	Chloroform	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	74-87-3	Chloromethane	ND	ug / L		1	5		12-18-01
001.1819.5	156-59-2	cis-1,2 dichloroethene	ND	ug / L		1	1		12-18-01
2001.1819.5	10061-01-5	cis-1,3 dichloropropene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	74-95-3	Dibromomethane	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	97-63-2	Ethyl methacrylate	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	100-41-4	Ethylbenzene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5		Freon 113	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	75-71-8	Freon 12	ND	ug / L		1	10		12-18-01
XG.2001.1819.5	74-88-4	Iodomethane	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	75-09-2	Methylene chloride	ND	ug / L		1	10		12-18-01
XG.2001.1819.5	91-20-3	Naphthalene	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	95-47-6	o-Xylene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	108-38-3/106-42	p/m Xylenes	ND	ug / L		1	2		12-18-01
XG.2001.1819.5	100-42-5	Styrene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	156-60-5	t-1,2 Dichloroethene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	10061-02-6	t-1,3 Dichloropropene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	127-18-4	Tetrachloroethene (PCE)	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	108-88-3	Toluene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	79-01-6	Trichloroethene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	75-69-4	Trichlorofluoromethane	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	108-05-4	Vinyl acetate	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	75-01-4	Vinyl chloride	ND	ug / L		1	5		12-18-01
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-031**	
XG.2001.1825.3	75-34-3	1,1 Dichloroethane	ND	ug / L		1	1		12-19-01
2001.1825.3	75-34-3	1,1 Dichloroethene	ND	ug / L		1	1		12-19-01
001.1825.3	71-55-6	1,1,1 Trichloroethane	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L		1	1		12-19-01

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-031**	
XG.2001.1825.3	79-00-5	1,1,2 Trichloroethane	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	95-50-1	1,2 Dichlorobenzene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	78-87-5	1,2 Dichloropropane	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	96-18-4	1,2,3 Trichloropropane	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	95-63-6	1,2,4-Trimethylbenzene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	541-73-1	1,3 Dichlorobenzene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	108-67-8	1,3,5-Trimethylbenzene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	764-41-0	1,4 Dichloro-2-butene	ND	ug / L		1	10		12-19-01
XG.2001.1825.3	106-46-7	1,4 Dichlorobenzene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	90-12-0	1-Methylnaphthalene	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	78-93-3	2-Butanone (MEK)	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	110-75-8	2-Chloroethylvinylether	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	591-78-6	2-Hexanone (MBK)	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	91-57-6	2-Methylnaphthalene	ND	ug / L		1	5		[illegible]1
XG.2001.1825.3	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L		1	5		1[illegible]01
XG.2001.1825.3	67-64-1	Acetone	ND	ug / L		1	10		12-19-01
XG.2001.1825.3	107-13-1	Acrylonitrile	ND	ug / L		1	20		12-19-01
XG.2001.1825.3	71-43-2	Benzene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	75-27-4	Bromodichloromethane	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	75-25-2	Bromoform	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	74-83-9	Bromomethane	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	75-15-0	Carbon disulfide	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	56-23-5	Carbon tetrachloride	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	108-90-7	Chlorobenzene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	124-48-1	Chlorodibromomethane	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	75-00-3	Chloroethane	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	67-66-3	Chloroform	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	74-87-3	Chloromethane	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	156-59-2	cis-1,2 dichloroethene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	10061-01-5	cis-1,3 dichloropropene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	74-95-3	Dibromomethane	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	97-63-2	Ethyl methacrylate	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	100-41-4	Ethylbenzene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3		Freon 113	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	75-71-8	Freon 12	ND	ug / L		1	10		12-19-01
XG.2001.1825.3	74-88-4	Iodomethane	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	75-09-2	Methylene chloride	ND	ug / L		1	10		12-19-01
XG.2001.1825.3	91-20-3	Naphthalene	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	95-47-6	o-Xylene	ND	ug / L		1	1		[illegible]1

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-031**	
XG.2001.1825.3	108-38-3/106-42	p/m Xylenes	ND	ug / L		1	2		12-19-01
XG.2001.1825.3	100-42-5	Styrene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	156-60-5	t-1,2 Dichloroethene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	10061-02-6	t-1,3 Dichloropropene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	127-18-4	Tetrachloroethene (PCE)	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	108-88-3	Toluene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	79-01-6	Trichloroethene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	75-69-4	Trichlorofluoromethane	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	108-05-4	Vinyl acetate	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	75-01-4	Vinyl chloride	ND	ug / L		1	5		12-19-01
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-035**	
XG.2001.1833.1	75-34-3	1,1 Dichloroethane	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	75-34-3	1,1 Dichloroethene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	71-55-6	1,1,1 Trichloroethane	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L		1	1		12-20-01
2001.1833.1	79-00-5	1,1,2 Trichloroethane	ND	ug / L		1	1		12-20-01
.2001.1833.1	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	95-50-1	1,2 Dichlorobenzene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	78-87-5	1,2 Dichloropropane	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	96-18-4	1,2,3 Trichloropropane	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	95-63-6	1,2,4-Trimethylbenzene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	541-73-1	1,3 Dichlorobenzene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	108-67-8	1,3,5-Trimethylbenzene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	764-41-0	1,4 Dichloro-2-butene	ND	ug / L		1	10		12-20-01
XG.2001.1833.1	106-46-7	1,4 Dichlorobenzene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	90-12-0	1-Methylnaphthalene	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	78-93-3	2-Butanone (MEK)	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	110-75-8	2-Chloroethylvinylether	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	591-78-6	2-Hexanone (MBK)	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	91-57-6	2-Methylnaphthalene	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	67-64-1	Acetone	ND	ug / L		1	10		12-20-01
XG.2001.1833.1	107-02-8	Acrolein	ND	ug / L		1	20		12-20-01
XG.2001.1833.1	107-13-1	Acrylonitrile	ND	ug / L		1	20		12-20-01
XG.2001.1833.1	71-43-2	Benzene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	75-27-4	Bromodichloromethane	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	75-25-2	Bromoform	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	74-83-9	Bromomethane	ND	ug / L		1	5		12-20-01
2001.1833.1	75-15-0	Carbon disulfide	ND	ug / L		1	5		12-20-01
2001.1833.1	56-23-5	Carbon tetrachloride	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	108-90-7	Chlorobenzene	ND	ug / L		1	1		12-20-01

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-035**	
XG.2001.1833.1	124-48-1	Chlorodibromomethane	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	75-00-3	Chloroethane	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	67-66-3	Chloroform	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	74-87-3	Chloromethane	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	156-59-2	cis-1,2 dichloroethene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	10061-01-5	cis-1,3 dichloropropene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	74-95-3	Dibromomethane	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	97-63-2	Ethyl methacrylate	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	100-41-4	Ethylbenzene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1		Freon 113	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	75-71-8	Freon 12	ND	ug / L		1	10		12-20-01
XG.2001.1833.1	74-88-4	Iodomethane	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	75-09-2	Methylene chloride	ND	ug / L		1	10		12-20-01
XG.2001.1833.1	91-20-3	Naphthalene	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	95-47-6	o-Xylene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	108-38-3/106-42	p/m Xylenes	ND	ug / L		1	2		1[illegible]
XG.2001.1833.1	100-42-5	Styrene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	156-60-5	t-1,2 Dichloroethene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	10061-02-6	t-1,3 Dichloropropene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	127-18-4	Tetrachloroethene (PCE)	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	108-88-3	Toluene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	79-01-6	Trichloroethene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	75-69-4	Trichlorofluoromethane	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	108-05-4	Vinyl acetate	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	75-01-4	Vinyl chloride	ND	ug / L		1	5		12-20-01

Type: ***MD: Matrix Duplicate*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
CON0149		**EPA 120.1**						**01.3325-5**	
TT.2001.3325.5		Conductivity	6	RPD		1	NA		12-27-01
EWPH01160		**EPA 150.1**						**01.3256-2**	
TT.2001.3256.2		pH	0.01	DIFF		1	NA		12-13-01
TD0166		**EPA 160.1**						**01.3299-5**	
TT.2001.3299.5		Total Dissolved Solids	< 1	RPD		1	NA		12-19-01

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MS: Matrix Spike*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-007**	
XG.2001.1829.5	75-34-3	1,1 Dichloroethene	108	% Recovery		1	NA		12-12-01
XG.2001.1829.5	106-46-7	1,4 Dichlorobenzene	97	% Recovery		1	NA		12-12-01
XG.2001.1829.5	71-43-2	Benzene	104	% Recovery		1	NA		12-12-01
XG.2001.1829.5	108-90-7	Chlorobenzene	112	% Recovery		1	NA		12-12-01
XG.2001.1829.5	108-88-3	Toluene	112	% Recovery		1	NA		12-12-01
XG.2001.1829.5	79-01-6	Trichloroethene	107	% Recovery		1	NA		12-12-01

Type: ***MSD: Matrix Spike Duplicate Precision*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-008**	
XG.2001.1829.6	75-34-3	1,1 Dichloroethene	4	RPD		1	NA		12-12-01
XG.2001.1829.6	106-46-7	1,4 Dichlorobenzene	4	RPD		1	NA		12-12-01
XG.2001.1829.6	71-43-2	Benzene	3	RPD		1	NA		12-12-01
2001.1829.6	108-90-7	Chlorobenzene	1	RPD		1	NA		12-12-01
2001.1829.6	108-88-3	Toluene	1	RPD		1	NA		12-12-01
XG.2001.1829.6	79-01-6	Trichloroethene	3	RPD		1	NA		12-12-01

Type: ***MSD: Matrix Spike Duplicate Accuracy*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-008**	
XG.2001.1829.6	75-34-3	1,1 Dichloroethene	113	% Recovery		1	NA		12-12-01
XG.2001.1829.6	106-46-7	1,4 Dichlorobenzene	101	% Recovery		1	NA		12-12-01
XG.2001.1829.6	71-43-2	Benzene	107	% Recovery		1	NA		12-12-01
XG.2001.1829.6	108-90-7	Chlorobenzene	114	% Recovery		1	NA		12-12-01
XG.2001.1829.6	108-88-3	Toluene	113	% Recovery		1	NA		12-12-01
XG.2001.1829.6	79-01-6	Trichloroethene	110	% Recovery		1	NA		12-12-01

Assaigai Analytical Laboratories, Inc.

QC Surrogate Summary

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Sample: ***0112234-01A*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**VOA8260**						**X01520-027**	
XG.2001.1819.9		1,2 Dichloroethane-D4 (SS)	104	% Recovery		1	NA		12-18-01
XG.2001.1819.9		4-Bromofluorobenzene (SS)	101	% Recovery		1	NA		12-18-01
XG.2001.1819.9		Dibromofluoromethane (SS)	103	% Recovery		1	NA		12-18-01
XG.2001.1819.9		Toluene-D8 (SS)	101	% Recovery		1	NA		12-18-01
X01520		**VOA8260**						**X01520-032**	
XG.2001.1825.4		1,2 Dichloroethane-D4 (SS)	102	% Recovery		1	NA		12-19-01
XG.2001.1825.4		4-Bromofluorobenzene (SS)	99	% Recovery		1	NA		12-19-01
XG.2001.1825.4		Dibromofluoromethane (SS)	101	% Recovery		1	NA		12-19-01
XG.2001.1825.4		Toluene-D8 (SS)	103	% Recovery		1	NA		12-19-01

Sample: ***0112234-02A*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**VOA8260**						**X01520-028**	
XG.2001.1819.10		1,2 Dichloroethane-D4 (SS)	104	% Recovery		1	NA		1[illegible]
XG.2001.1819.10		4-Bromofluorobenzene (SS)	100	% Recovery		1	NA		12-[illegible]-01
XG.2001.1819.10		Dibromofluoromethane (SS)	103	% Recovery		1	NA		12-18-01
XG.2001.1819.10		Toluene-D8 (SS)	101	% Recovery		1	NA		12-18-01
X01520		**VOA8260**						**X01520-033**	
XG.2001.1825.5		1,2 Dichloroethane-D4 (SS)	102	% Recovery		1	NA		12-19-01
XG.2001.1825.5		4-Bromofluorobenzene (SS)	100	% Recovery		1	NA		12-19-01
XG.2001.1825.5		Dibromofluoromethane (SS)	102	% Recovery		1	NA		12-19-01
XG.2001.1825.5		Toluene-D8 (SS)	101	% Recovery		1	NA		12-19-01

Sample: ***LCS*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**VOA8260**						**X01520-002**	
XG.2001.1829.2		1,2 Dichloroethane-D4 (SS)	104	% Recovery		1	NA		12-12-01
XG.2001.1829.2		4-Bromofluorobenzene (SS)	98	% Recovery		1	NA		12-12-01
XG.2001.1829.2		Dibromofluoromethane (SS)	100	% Recovery		1	NA		12-12-01
XG.2001.1829.2		Toluene-D8 (SS)	103	% Recovery		1	NA		12-12-01

Sample: ***LCSD*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**VOA8260**						**X01520-003**	
XG.2001.1829.3		1,2 Dichloroethane-D4 (SS)	103	% Recovery		1	NA		12-[illegible]-01

Assaigai Analytical Laboratories, Inc.

QC Surrogate Summary

Client: **MEVATEC CORPORATION**
ect: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Sample: ***LCSD*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**VOA8260**						**X01520-003**	
XG.2001.1829.3		4-Bromofluorobenzene (SS)	97	% Recovery		1	NA		12-12-01
XG.2001.1829.3		Dibromofluoromethane (SS)	100	% Recovery		1	NA		12-12-01
XG.2001.1829.3		Toluene-D8 (SS)	102	% Recovery		1	NA		12-12-01

Sample: ***MB*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**VOA8260**						**X01520-001**	
XG.2001.1829.1		1,2 Dichloroethane-D4 (SS)	100	% Recovery		1	NA		12-12-01
XG.2001.1829.1		4-Bromofluorobenzene (SS)	98	% Recovery		1	NA		12-12-01
XG.2001.1829.1		Dibromofluoromethane (SS)	99	% Recovery		1	NA		12-12-01
XG.2001.1829.1		Toluene-D8 (SS)	103	% Recovery		1	NA		12-12-01
X01520		**VOA8260**						**X01520-015**	
XG.2001.1801.1		1,2 Dichloroethane-D4 (SS)	102	% Recovery		1	NA		12-14-01
`001.1801.1		4-Bromofluorobenzene (SS)	97	% Recovery		1	NA		12-14-01
2001.1801.1		Dibromofluoromethane (SS)	101	% Recovery		1	NA		12-14-01
XG.2001.1801.1		Toluene-D8 (SS)	104	% Recovery		1	NA		12-14-01
X01520		**VOA8260**						**X01520-020**	
XG.2001.1806.1		1,2 Dichloroethane-D4 (SS)	103	% Recovery		1	NA		12-17-01
XG.2001.1806.1		4-Bromofluorobenzene (SS)	96	% Recovery		1	NA		12-17-01
XG.2001.1806.1		Dibromofluoromethane (SS)	101	% Recovery		1	NA		12-17-01
XG.2001.1806.1		Toluene-D8 (SS)	103	% Recovery		1	NA		12-17-01
X01520		**VOA8260**						**X01520-025**	
XG.2001.1819.5		1,2 Dichloroethane-D4 (SS)	100	% Recovery		1	NA		12-18-01
XG.2001.1819.5		4-Bromofluorobenzene (SS)	96	% Recovery		1	NA		12-18-01
XG.2001.1819.5		Dibromofluoromethane (SS)	100	% Recovery		1	NA		12-18-01
XG.2001.1819.5		Toluene-D8 (SS)	104	% Recovery		1	NA		12-18-01
X01520		**VOA8260**						**X01520-031**	
XG.2001.1825.3		1,2 Dichloroethane-D4 (SS)	104	% Recovery		1	NA		12-19-01
XG.2001.1825.3		4-Bromofluorobenzene (SS)	96	% Recovery		1	NA		12-19-01
XG.2001.1825.3		Dibromofluoromethane (SS)	102	% Recovery		1	NA		12-19-01
XG.2001.1825.3		Toluene-D8 (SS)	104	% Recovery		1	NA		12-19-01
X01520		**VOA8260**						**X01520-035**	
XG.2001.1833.1		1,2 Dichloroethane-D4 (SS)	102	% Recovery		1	NA		12-20-01
XG.2001.1833.1		4-Bromofluorobenzene (SS)	98	% Recovery		1	NA		12-20-01
XG.2001.1833.1		Dibromofluoromethane (SS)	101	% Recovery		1	NA		12-20-01
XG.2001.1833.1		Toluene-D8 (SS)	103	% Recovery		1	NA		12-20-01

Assaigai Analytical Laboratories, Inc.

QC Surrogate Summary

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Sample: ***MS*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**VOA8260**						**X01520-007**	
XG.2001.1829.5		1,2 Dichloroethane-D4 (SS)	101	% Recovery		1	NA		12-12-01
XG.2001.1829.5		4-Bromofluorobenzene (SS)	100	% Recovery		1	NA		12-12-01
XG.2001.1829.5		Dibromofluoromethane (SS)	100	% Recovery		1	NA		12-12-01
XG.2001.1829.5		Toluene-D8 (SS)	102	% Recovery		1	NA		12-12-01

Sample: ***MSD*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**VOA8260**						**X01520-008**	
XG.2001.1829.6		1,2 Dichloroethane-D4 (SS)	102	% Recovery		1	NA		12-12-01
XG.2001.1829.6		4-Bromofluorobenzene (SS)	99	% Recovery		1	NA		12-12-01
XG.2001.1829.6		Dibromofluoromethane (SS)	102	% Recovery		1	NA		12-12-01
XG.2001.1829.6		Toluene-D8 (SS)	103	% Recovery		1	NA		12-12-01

Assaigai PO#: will call w/ PO#

MEVATEC CORPORATION
P.O. Box 399
Bldg. 126
WSMR, NM 88002
(505) 678-0263

CHAIN OF CUSTODY RECORD

0112234

PAGE 1 OF 1

PROJECT NO.	PROJECT NAME
800 A9	HWSF Evaporation Tank

SAMPLER'S SIGNATURE: G Watterson

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	8260 (VOC)	pH (EPA 150.1)	TDS (EPA 160.1)	Specific Cond. (EPA 120.1)	REMARKS
12/12/01	1342	HWSF-TW03-1201-QA	Aqueous	(3) 40mL VOA (5) 250 ml	5	X	X	X	X	Check Contract for Parameters
12/12/01	1342	HWSF-TW03-1201-QA-TB	Aqueous	40mL VOA	2	X				Trip Blank

Original

PROJECT INFORMATION			1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER: William Little	SAMPLES RECEIVED	2	(PRINTED NAME) Greg Watterson	(PRINTED NAME)	(PRINTED NAME)
	TOTAL NO. OF CONTAINERS	7	RECEIVED BY: Armond Papisano	RECEIVED BY: Melissa AAL	(COMPANY) ASSAIGAI
SHIPPING ID. NO.	CHAIN OF CUSTODY SEALS	None	(TIME / DATE) 3:30 12/13/01	(TIME / DATE) 12/14/01 1046	(TIME / DATE)
	GOOD CONDITION/CHILLED	yes	SPECIAL INSTRUCTIONS / COMMENTS:		
VIA: Lab Courier	CONFORMS TO RECORD				

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Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***LCS: Lab Control Spike*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
CON0149		**EPA 120.1**						**01.3325-2**	
TT.2001.3325.2		Conductivity	90	% Recovery		1	NA		12-27-01
TD0166		**EPA 160.1**						**01.3299-2**	
TT.2001.3299.2		Total Dissolved Solids	100	% Recovery		1	NA		12-19-01
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-002**	
XG.2001.1829.2	75-34-3	1,1 Dichloroethene	115	% Recovery		1	NA		12-12-01
XG.2001.1829.2	106-46-7	1,4 Dichlorobenzene	106	% Recovery		1	NA		12-12-01
XG.2001.1829.2	71-43-2	Benzene	109	% Recovery		1	NA		12-12-01
XG.2001.1829.2	108-90-7	Chlorobenzene	118	% Recovery		1	NA		12-12-01
XG.2001.1829.2	108-88-3	Toluene	115	% Recovery		1	NA		12-12-01
XG.2001.1829.2	79-01-6	Trichloroethene	113	% Recovery		1	NA		12-12-01

Type: ***LCSD: Lab Control Spike Duplicate Precision*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
CON0149		**EPA 120.1**						**01.3325-3**	
TT.2001.3325.3		Conductivity	17	RPD		1	NA		12-27-01
TD0166		**EPA 160.1**						**01.3299-3**	
TT.2001.3299.3		Total Dissolved Solids	< 1	RPD		1	NA		12-19-01
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-003**	
XG.2001.1829.3	75-34-3	1,1 Dichloroethene	6	RPD		1	NA		12-12-01
XG.2001.1829.3	106-46-7	1,4 Dichlorobenzene	2	RPD		1	NA		12-12-01
XG.2001.1829.3	71-43-2	Benzene	3	RPD		1	NA		12-12-01
XG.2001.1829.3	108-90-7	Chlorobenzene	4	RPD		1	NA		12-12-01
XG.2001.1829.3	108-88-3	Toluene	6	RPD		1	NA		12-12-01
XG.2001.1829.3	79-01-6	Trichloroethene	4	RPD		1	NA		12-12-01

Type: ***LCSD: Lab Control Spike Duplicate Accuracy*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
CON0149		**EPA 120.1**						**01.3325-3**	
TT.2001.3325.3		Conductivity	106	% Recovery		1	NA		12-27-01
TD0166		**EPA 160.1**						**01.3299-3**	
TT.2001.3299.3		Total Dissolved Solids	100	% Recovery		1	NA		12-19-01
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-003**	
XG.2001.1829.3	75-34-3	1,1 Dichloroethene	108	% Recovery		1	NA		12-12-01
XG.2001.1829.3	106-46-7	1,4 Dichlorobenzene	104	% Recovery		1	NA		12-12-01
XG.2001.1829.3	71-43-2	Benzene	105	% Recovery		1	NA		12-12-01
XG.2001.1829.3	108-90-7	Chlorobenzene	113	% Recovery		1	NA		12-12-01

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Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***LCSD: Lab Control Spike Duplicate Accuracy*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-003**	
XG.2001.1829.3	108-88-3	Toluene	108	% Recovery		1	NA		12-12-01
XG.2001.1829.3	79-01-6	Trichloroethene	109	% Recovery		1	NA		12-12-01

Type: ***MB: Method Blank*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
CON0149		**EPA 120.1**						**01.3325-1**	
TT.2001.3325.1		Conductivity	ND	umhos/cm		1	1		12-27-01
TD0166		**EPA 160.1**						**01.3299-1**	
TT.2001.3299.1		Total Dissolved Solids	ND	mg / L		1	10		12-19-01
TD0166		**EPA 160.1**						**01.3299-12**	
TT.2001.3299.12		Total Dissolved Solids	ND	mg / L		1	10		12-20-01
TD0166		**EPA 160.1**						**01.3324-1**	
[illegible]001.3324.1		Total Dissolved Solids	ND	mg / L		1	10		12-21-01
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-001**	
XG.2001.1829.1	75-34-3	1,1 Dichloroethane	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	75-34-3	1,1 Dichloroethene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	71-55-6	1,1,1 Trichloroethane	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	79-00-5	1,1,2 Trichloroethane	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	95-50-1	1,2 Dichlorobenzene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	78-87-5	1,2 Dichloropropane	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	96-18-4	1,2,3 Trichloropropane	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	95-63-6	1,2,4-Trimethylbenzene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	541-73-1	1,3 Dichlorobenzene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	108-67-8	1,3,5-Trimethylbenzene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	764-41-0	1,4 Dichloro-2-butene	ND	ug / L		1	10		12-12-01
XG.2001.1829.1	106-46-7	1,4 Dichlorobenzene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	90-12-0	1-Methylnaphthalene	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	78-93-3	2-Butanone (MEK)	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	110-75-8	2-Chloroethylvinylether	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	591-78-6	2-Hexanone (MBK)	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	91-57-6	2-Methylnaphthalene	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	67-64-1	Acetone	ND	ug / L		1	10		12-12-01
[illegible]2001.1829.1	107-02-8	Acrolein	ND	ug / L		1	20		12-12-01
[illegible].2001.1829.1	107-13-1	Acrylonitrile	ND	ug / L		1	20		12-12-01

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Client: **MEVATEC CORPORATION**
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Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-001**	
XG.2001.1829.1	71-43-2	Benzene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	75-27-4	Bromodichloromethane	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	75-25-2	Bromoform	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	74-83-9	Bromomethane	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	75-15-0	Carbon disulfide	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	56-23-5	Carbon tetrachloride	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	108-90-7	Chlorobenzene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	124-48-1	Chlorodibromomethane	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	75-00-3	Chloroethane	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	67-66-3	Chloroform	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	74-87-3	Chloromethane	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	156-59-2	cis-1,2 dichloroethene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	10061-01-5	cis-1,3 dichloropropene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	74-95-3	Dibromomethane	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	97-63-2	Ethyl methacrylate	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	100-41-4	Ethylbenzene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1		Freon 113	ND	ug / L		1	5		1[illegible]
XG.2001.1829.1	75-71-8	Freon 12	ND	ug / L		1	10		12-12-01
XG.2001.1829.1	74-88-4	Iodomethane	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	75-09-2	Methylene chloride	ND	ug / L		1	10		12-12-01
XG.2001.1829.1	91-20-3	Naphthalene	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	95-47-6	o-Xylene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	108-38-3/106-42	p/m Xylenes	ND	ug / L		1	2		12-12-01
XG.2001.1829.1	100-42-5	Styrene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	156-60-5	t-1,2 Dichloroethene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	10061-02-6	t-1,3 Dichloropropene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	127-18-4	Tetrachloroethene (PCE)	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	108-88-3	Toluene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	79-01-6	Trichloroethene	ND	ug / L		1	1		12-12-01
XG.2001.1829.1	75-69-4	Trichlorofluoromethane	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	108-05-4	Vinyl acetate	ND	ug / L		1	5		12-12-01
XG.2001.1829.1	75-01-4	Vinyl chloride	ND	ug / L		1	5		12-12-01
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-015**	
XG.2001.1801.1	75-34-3	1,1 Dichloroethane	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	75-34-3	1,1 Dichloroethene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	71-55-6	1,1,1 Trichloroethane	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	79-00-5	1,1,2 Trichloroethane	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L		1	1		12-[illegible]-01
XG.2001.1801.1	95-50-1	1,2 Dichlorobenzene	ND	ug / L		1	1		1[illegible]
XG.2001.1801.1	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L		1	1		12-14-01

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Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**					**X01520-015**		
XG.2001.1801.1	78-87-5	1,2 Dichloropropane	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	96-18-4	1,2,3 Trichloropropane	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	95-63-6	1,2,4-Trimethylbenzene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	541-73-1	1,3 Dichlorobenzene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	108-67-8	1,3,5-Trimethylbenzene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	764-41-0	1,4 Dichloro-2-butene	ND	ug / L		1	10		12-14-01
XG.2001.1801.1	106-46-7	1,4 Dichlorobenzene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	90-12-0	1-Methylnaphthalene	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	78-93-3	2-Butanone (MEK)	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	110-75-8	2-Chloroethylvinylether	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	591-78-6	2-Hexanone (MBK)	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	91-57-6	2-Methylnaphthalene	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	67-64-1	Acetone	ND	ug / L		1	10		12-14-01
XG.2001.1801.1	107-02-8	Acrolein	ND	ug / L		1	20		12-14-01
XG.2001.1801.1	107-13-1	Acrylonitrile	ND	ug / L		1	20		12-14-01
2001.1801.1	71-43-2	Benzene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	75-27-4	Bromodichloromethane	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	75-25-2	Bromoform	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	74-83-9	Bromomethane	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	75-15-0	Carbon disulfide	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	56-23-5	Carbon tetrachloride	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	108-90-7	Chlorobenzene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	124-48-1	Chlorodibromomethane	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	75-00-3	Chloroethane	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	67-66-3	Chloroform	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	74-87-3	Chloromethane	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	156-59-2	cis-1,2 dichloroethene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	10061-01-5	cis-1,3 dichloropropene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	74-95-3	Dibromomethane	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	97-63-2	Ethyl methacrylate	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	100-41-4	Ethylbenzene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1		Freon 113	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	75-71-8	Freon 12	ND	ug / L		1	10		12-14-01
XG.2001.1801.1	74-88-4	Iodomethane	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	75-09-2	Methylene chloride	ND	ug / L		1	10		12-14-01
XG.2001.1801.1	91-20-3	Naphthalene	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	95-47-6	o-Xylene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	108-38-3/106-42	p/m Xylenes	ND	ug / L		1	2		12-14-01
XG.2001.1801.1	100-42-5	Styrene	ND	ug / L		1	1		12-14-01
2001.1801.1	156-60-5	t-1,2 Dichloroethene	ND	ug / L		1	1		12-14-01
.2001.1801.1	10061-02-6	t-1,3 Dichloropropene	ND	ug / L		1	1		12-14-01

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Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-015**	
XG.2001.1801.1	127-18-4	Tetrachloroethene (PCE)	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	108-88-3	Toluene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	79-01-6	Trichloroethene	ND	ug / L		1	1		12-14-01
XG.2001.1801.1	75-69-4	Trichlorofluoromethane	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	108-05-4	Vinyl acetate	ND	ug / L		1	5		12-14-01
XG.2001.1801.1	75-01-4	Vinyl chloride	ND	ug / L		1	5		12-14-01
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-020**	
XG.2001.1806.1	75-34-3	1,1 Dichloroethane	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	75-34-3	1,1 Dichloroethene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	71-55-6	1,1,1 Trichloroethane	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	79-00-5	1,1,2 Trichloroethane	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	95-50-1	1,2 Dichlorobenzene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L		1	1		12[illegible]
XG.2001.1806.1	78-87-5	1,2 Dichloropropane	ND	ug / L		1	1		12[illegible]
XG.2001.1806.1	96-18-4	1,2,3 Trichloropropane	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	95-63-6	1,2,4-Trimethylbenzene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	541-73-1	1,3 Dichlorobenzene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	108-67-8	1,3,5-Trimethylbenzene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	764-41-0	1,4 Dichloro-2-butene	ND	ug / L		1	10		12-17-01
XG.2001.1806.1	106-46-7	1,4 Dichlorobenzene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	90-12-0	1-Methylnaphthalene	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	78-93-3	2-Butanone (MEK)	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	110-75-8	2-Chloroethylvinylether	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	591-78-6	2-Hexanone (MBK)	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	91-57-6	2-Methylnaphthalene	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	67-64-1	Acetone	ND	ug / L		1	10		12-17-01
XG.2001.1806.1	107-02-8	Acrolein	ND	ug / L		1	20		12-17-01
XG.2001.1806.1	107-13-1	Acrylonitrile	ND	ug / L		1	20		12-17-01
XG.2001.1806.1	71-43-2	Benzene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	75-27-4	Bromodichloromethane	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	75-25-2	Bromoform	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	74-83-9	Bromomethane	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	75-15-0	Carbon disulfide	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	56-23-5	Carbon tetrachloride	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	108-90-7	Chlorobenzene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	124-48-1	Chlorodibromomethane	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	75-00-3	Chloroethane	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	67-66-3	Chloroform	ND	ug / L		1	1		1[illegible]
XG.2001.1806.1	74-87-3	Chloromethane	ND	ug / L		1	5		12-[illegible]1

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-020**	
XG.2001.1806.1	156-59-2	cis-1,2 dichloroethene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	10061-01-5	cis-1,3 dichloropropene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	74-95-3	Dibromomethane	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	97-63-2	Ethyl methacrylate	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	100-41-4	Ethylbenzene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1		Freon 113	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	75-71-8	Freon 12	ND	ug / L		1	10		12-17-01
XG.2001.1806.1	74-88-4	Iodomethane	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	75-09-2	Methylene chloride	ND	ug / L		1	10		12-17-01
XG.2001.1806.1	91-20-3	Naphthalene	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	95-47-6	o-Xylene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	108-38-3/106-42	p/m Xylenes	ND	ug / L		1	2		12-17-01
XG.2001.1806.1	100-42-5	Styrene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	156-60-5	t-1,2 Dichloroethene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	10061-02-6	t-1,3 Dichloropropene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	127-18-4	Tetrachloroethene (PCE)	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	108-88-3	Toluene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	79-01-6	Trichloroethene	ND	ug / L		1	1		12-17-01
XG.2001.1806.1	75-69-4	Trichlorofluoromethane	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	108-05-4	Vinyl acetate	ND	ug / L		1	5		12-17-01
XG.2001.1806.1	75-01-4	Vinyl chloride	ND	ug / L		1	5		12-17-01
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-025**	
XG.2001.1819.5	75-34-3	1,1 Dichloroethane	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	75-34-3	1,1 Dichloroethene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	71-55-6	1,1,1 Trichloroethane	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	79-00-5	1,1,2 Trichloroethane	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	95-50-1	1,2 Dichlorobenzene	1.0	ug / L		1	1		12-18-01
XG.2001.1819.5	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	78-87-5	1,2 Dichloropropane	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	96-18-4	1,2,3 Trichloropropane	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	95-63-6	1,2,4-Trimethylbenzene	3.0	ug / L		1	1		12-18-01
XG.2001.1819.5	541-73-1	1,3 Dichlorobenzene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	108-67-8	1,3,5-Trimethylbenzene	7.5	ug / L		1	1		12-18-01
XG.2001.1819.5	764-41-0	1,4 Dichloro-2-butene	ND	ug / L		1	10		12-18-01
XG.2001.1819.5	106-46-7	1,4 Dichlorobenzene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	90-12-0	1-Methylnaphthalene	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	78-93-3	2-Butanone (MEK)	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	110-75-8	2-Chloroethylvinylether	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	591-78-6	2-Hexanone (MBK)	ND	ug / L		1	5		12-18-01

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-025**	
XG.2001.1819.5	91-57-6	2-Methylnaphthalene	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	67-64-1	Acetone	ND	ug / L		1	10		12-18-01
XG.2001.1819.5	107-02-8	Acrolein	ND	ug / L		1	20		12-18-01
XG.2001.1819.5	107-13-1	Acrylonitrile	ND	ug / L		1	20		12-18-01
XG.2001.1819.5	71-43-2	Benzene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	75-27-4	Bromodichloromethane	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	75-25-2	Bromoform	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	74-83-9	Bromomethane	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	75-15-0	Carbon disulfide	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	56-23-5	Carbon tetrachloride	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	108-90-7	Chlorobenzene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	124-48-1	Chlorodibromomethane	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	75-00-3	Chloroethane	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	67-66-3	Chloroform	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	74-87-3	Chloromethane	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	156-59-2	cis-1,2 dichloroethene	ND	ug / L		1	1		[illegible]01
XG.2001.1819.5	10061-01-5	cis-1,3 dichloropropene	ND	ug / L		1	1		[illegible]01
XG.2001.1819.5	74-95-3	Dibromomethane	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	97-63-2	Ethyl methacrylate	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	100-41-4	Ethylbenzene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5		Freon 113	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	75-71-8	Freon 12	ND	ug / L		1	10		12-18-01
XG.2001.1819.5	74-88-4	Iodomethane	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	75-09-2	Methylene chloride	ND	ug / L		1	10		12-18-01
XG.2001.1819.5	91-20-3	Naphthalene	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	95-47-6	o-Xylene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	108-38-3/106-42	p/m Xylenes	ND	ug / L		1	2		12-18-01
XG.2001.1819.5	100-42-5	Styrene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	156-60-5	t-1,2 Dichloroethene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	10061-02-6	t-1,3 Dichloropropene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	127-18-4	Tetrachloroethene (PCE)	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	108-88-3	Toluene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	79-01-6	Trichloroethene	ND	ug / L		1	1		12-18-01
XG.2001.1819.5	75-69-4	Trichlorofluoromethane	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	108-05-4	Vinyl acetate	ND	ug / L		1	5		12-18-01
XG.2001.1819.5	75-01-4	Vinyl chloride	ND	ug / L		1	5		12-18-01
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-031**	
XG.2001.1825.3	75-34-3	1,1 Dichloroethane	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	75-34-3	1,1 Dichloroethene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	71-55-6	1,1,1 Trichloroethane	ND	ug / L		1	1		[illegible]01
XG.2001.1825.3	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L		1	1		12-19-01

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

nt: **MEVATEC CORPORATION**
ect: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**					**X01520-031**		
XG.2001.1825.3	79-00-5	1,1,2 Trichloroethane	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	95-50-1	1,2 Dichlorobenzene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	78-87-5	1,2 Dichloropropane	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	96-18-4	1,2,3 Trichloropropane	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	95-63-6	1,2,4-Trimethylbenzene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	541-73-1	1,3 Dichlorobenzene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	108-67-8	1,3,5-Trimethylbenzene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	764-41-0	1,4 Dichloro-2-butene	ND	ug / L		1	10		12-19-01
XG.2001.1825.3	106-46-7	1,4 Dichlorobenzene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	90-12-0	1-Methylnaphthalene	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	78-93-3	2-Butanone (MEK)	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	110-75-8	2-Chloroethylvinylether	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	591-78-6	2-Hexanone (MBK)	ND	ug / L		1	5		12-19-01
)01.1825.3	91-57-6	2-Methylnaphthalene	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	67-64-1	Acetone	ND	ug / L		1	10		12-19-01
XG.2001.1825.3	107-13-1	Acrylonitrile	ND	ug / L		1	20		12-19-01
XG.2001.1825.3	71-43-2	Benzene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	75-27-4	Bromodichloromethane	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	75-25-2	Bromoform	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	74-83-9	Bromomethane	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	75-15-0	Carbon disulfide	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	56-23-5	Carbon tetrachloride	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	108-90-7	Chlorobenzene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	124-48-1	Chlorodibromomethane	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	75-00-3	Chloroethane	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	67-66-3	Chloroform	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	74-87-3	Chloromethane	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	156-59-2	cis-1,2 dichloroethene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	10061-01-5	cis-1,3 dichloropropene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	74-95-3	Dibromomethane	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	97-63-2	Ethyl methacrylate	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	100-41-4	Ethylbenzene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3		Freon 113	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	75-71-8	Freon 12	ND	ug / L		1	10		12-19-01
XG.2001.1825.3	74-88-4	Iodomethane	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	75-09-2	Methylene chloride	ND	ug / L		1	10		12-19-01
?001.1825.3	91-20-3	Naphthalene	ND	ug / L		1	5		12-19-01
)01.1825.3	95-47-6	o-Xylene	ND	ug / L		1	1		12-19-01

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-031**	
XG.2001.1825.3	108-38-3/106-42	p/m Xylenes	ND	ug / L		1	2		12-19-01
XG.2001.1825.3	100-42-5	Styrene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	156-60-5	t-1,2 Dichloroethene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	10061-02-6	t-1,3 Dichloropropene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	127-18-4	Tetrachloroethene (PCE)	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	108-88-3	Toluene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	79-01-6	Trichloroethene	ND	ug / L		1	1		12-19-01
XG.2001.1825.3	75-69-4	Trichlorofluoromethane	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	108-05-4	Vinyl acetate	ND	ug / L		1	5		12-19-01
XG.2001.1825.3	75-01-4	Vinyl chloride	ND	ug / L		1	5		12-19-01
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-035**	
XG.2001.1833.1	75-34-3	1,1 Dichloroethane	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	75-34-3	1,1 Dichloroethene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	71-55-6	1,1,1 Trichloroethane	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	79-00-5	1,1,2 Trichloroethane	ND	ug / L		1	1		1
XG.2001.1833.1	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	95-50-1	1,2 Dichlorobenzene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	78-87-5	1,2 Dichloropropane	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	96-18-4	1,2,3 Trichloropropane	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	95-63-6	1,2,4-Trimethylbenzene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	541-73-1	1,3 Dichlorobenzene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	108-67-8	1,3,5-Trimethylbenzene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	764-41-0	1,4 Dichloro-2-butene	ND	ug / L		1	10		12-20-01
XG.2001.1833.1	106-46-7	1,4 Dichlorobenzene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	90-12-0	1-Methylnaphthalene	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	78-93-3	2-Butanone (MEK)	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	110-75-8	2-Chloroethylvinylether	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	591-78-6	2-Hexanone (MBK)	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	91-57-6	2-Methylnaphthalene	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	67-64-1	Acetone	ND	ug / L		1	10		12-20-01
XG.2001.1833.1	107-02-8	Acrolein	ND	ug / L		1	20		12-20-01
XG.2001.1833.1	107-13-1	Acrylonitrile	ND	ug / L		1	20		12-20-01
XG.2001.1833.1	71-43-2	Benzene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	75-27-4	Bromodichloromethane	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	75-25-2	Bromoform	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	74-83-9	Bromomethane	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	75-15-0	Carbon disulfide	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	56-23-5	Carbon tetrachloride	ND	ug / L		1	1		1
XG.2001.1833.1	108-90-7	Chlorobenzene	ND	ug / L		1	1		12-20-01

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MB: Method Blank*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-035**	
XG.2001.1833.1	124-48-1	Chlorodibromomethane	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	75-00-3	Chloroethane	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	67-66-3	Chloroform	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	74-87-3	Chloromethane	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	156-59-2	cis-1,2 dichloroethene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	10061-01-5	cis-1,3 dichloropropene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	74-95-3	Dibromomethane	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	97-63-2	Ethyl methacrylate	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	100-41-4	Ethylbenzene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1		Freon 113	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	75-71-8	Freon 12	ND	ug / L		1	10		12-20-01
XG.2001.1833.1	74-88-4	Iodomethane	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	75-09-2	Methylene chloride	ND	ug / L		1	10		12-20-01
XG.2001.1833.1	91-20-3	Naphthalene	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	95-47-6	o-Xylene	ND	ug / L		1	1		12-20-01
'001.1833.1	108-38-3/106-42	p/m Xylenes	ND	ug / L		1	2		12-20-01
XG.2001.1833.1	100-42-5	Styrene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	156-60-5	t-1,2 Dichloroethene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	10061-02-6	t-1,3 Dichloropropene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	127-18-4	Tetrachloroethene (PCE)	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	108-88-3	Toluene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	79-01-6	Trichloroethene	ND	ug / L		1	1		12-20-01
XG.2001.1833.1	75-69-4	Trichlorofluoromethane	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	108-05-4	Vinyl acetate	ND	ug / L		1	5		12-20-01
XG.2001.1833.1	75-01-4	Vinyl chloride	ND	ug / L		1	5		12-20-01

Type: ***MD: Matrix Duplicate*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
CON0149		**EPA 120.1**						**01.3325-5**	
TT.2001.3325.5		Conductivity	6	RPD		1	NA		12-27-01
EWPH01160		**EPA 150.1**						**01.3256-2**	
TT.2001.3256.2		pH	0.01	DIFF		1	NA		12-13-01
TD0166		**EPA 160.1**						**01.3299-5**	
TT.2001.3299.5		Total Dissolved Solids	< 1	RPD		1	NA		12-19-01

Assaigai Analytical Laboratories, Inc.

Quality Control Summary

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Type: ***MS: Matrix Spike*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-007**	
XG.2001.1829.5	75-34-3	1,1 Dichloroethene	108	% Recovery		1	NA		12-12-01
XG.2001.1829.5	106-46-7	1,4 Dichlorobenzene	97	% Recovery		1	NA		12-12-01
XG.2001.1829.5	71-43-2	Benzene	104	% Recovery		1	NA		12-12-01
XG.2001.1829.5	108-90-7	Chlorobenzene	112	% Recovery		1	NA		12-12-01
XG.2001.1829.5	108-88-3	Toluene	112	% Recovery		1	NA		12-12-01
XG.2001.1829.5	79-01-6	Trichloroethene	107	% Recovery		1	NA		12-12-01

Type: ***MSD: Matrix Spike Duplicate Precision*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-008**	
XG.2001.1829.6	75-34-3	1,1 Dichloroethene	4	RPD		1	NA		12-12-01
XG.2001.1829.6	106-46-7	1,4 Dichlorobenzene	4	RPD		1	NA		12-12-01
XG.2001.1829.6	71-43-2	Benzene	3	RPD		1	NA		12-12-01
XG.2001.1829.6	108-90-7	Chlorobenzene	1	RPD		1	NA		12-12-01
XG.2001.1829.6	108-88-3	Toluene	1	RPD		1	NA		12-12-01
XG.2001.1829.6	79-01-6	Trichloroethene	3	RPD		1	NA		12-12-01

Type: ***MSD: Matrix Spike Duplicate Accuracy*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**SW846 8260B Purgeable VOCs by GC/MS**						**X01520-008**	
XG.2001.1829.6	75-34-3	1,1 Dichloroethene	113	% Recovery		1	NA		12-12-01
XG.2001.1829.6	106-46-7	1,4 Dichlorobenzene	101	% Recovery		1	NA		12-12-01
XG.2001.1829.6	71-43-2	Benzene	107	% Recovery		1	NA		12-12-01
XG.2001.1829.6	108-90-7	Chlorobenzene	114	% Recovery		1	NA		12-12-01
XG.2001.1829.6	108-88-3	Toluene	113	% Recovery		1	NA		12-12-01
XG.2001.1829.6	79-01-6	Trichloroethene	110	% Recovery		1	NA		12-12-01

Assaigai Analytical Laboratories, Inc.

QC Surrogate Summary

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Sample: ***0112234-01A*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**VOA8260**						**X01520-027**	
XG.2001.1819.9		1,2 Dichloroethane-D4 (SS)	104	% Recovery		1	NA		12-18-01
XG.2001.1819.9		4-Bromofluorobenzene (SS)	101	% Recovery		1	NA		12-18-01
XG.2001.1819.9		Dibromofluoromethane (SS)	103	% Recovery		1	NA		12-18-01
XG.2001.1819.9		Toluene-D8 (SS)	101	% Recovery		1	NA		12-18-01
X01520		**VOA8260**						**X01520-032**	
XG.2001.1825.4		1,2 Dichloroethane-D4 (SS)	102	% Recovery		1	NA		12-19-01
XG.2001.1825.4		4-Bromofluorobenzene (SS)	99	% Recovery		1	NA		12-19-01
XG.2001.1825.4		Dibromofluoromethane (SS)	101	% Recovery		1	NA		12-19-01
XG.2001.1825.4		Toluene-D8 (SS)	103	% Recovery		1	NA		12-19-01

Sample: ***0112234-02A*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**VOA8260**						**X01520-028**	
[illegible]001.1819.10		1,2 Dichloroethane-D4 (SS)	104	% Recovery		1	NA		12-18-01
[illegible].2001.1819.10		4-Bromofluorobenzene (SS)	100	% Recovery		1	NA		12-18-01
XG.2001.1819.10		Dibromofluoromethane (SS)	103	% Recovery		1	NA		12-18-01
XG.2001.1819.10		Toluene-D8 (SS)	101	% Recovery		1	NA		12-18-01
X01520		**VOA8260**						**X01520-033**	
XG.2001.1825.5		1,2 Dichloroethane-D4 (SS)	102	% Recovery		1	NA		12-19-01
XG.2001.1825.5		4-Bromofluorobenzene (SS)	100	% Recovery		1	NA		12-19-01
XG.2001.1825.5		Dibromofluoromethane (SS)	102	% Recovery		1	NA		12-19-01
XG.2001.1825.5		Toluene-D8 (SS)	101	% Recovery		1	NA		12-19-01

Sample: ***LCS*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**VOA8260**						**X01520-002**	
XG.2001.1829.2		1,2 Dichloroethane-D4 (SS)	104	% Recovery		1	NA		12-12-01
XG.2001.1829.2		4-Bromofluorobenzene (SS)	98	% Recovery		1	NA		12-12-01
XG.2001.1829.2		Dibromofluoromethane (SS)	100	% Recovery		1	NA		12-12-01
XG.2001.1829.2		Toluene-D8 (SS)	103	% Recovery		1	NA		12-12-01

Sample: ***LCSD*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
520		**VOA8260**						**X01520-003**	
[illegible].2001.1829.3		1,2 Dichloroethane-D4 (SS)	103	% Recovery		1	NA		12-12-01

Assaigai Analytical Laboratories, Inc.

QC Surrogate Summary

Client: **MEVATEC CORPORATION**
Project: **800A9 HWSF EVAPORATION TANK**
Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Sample: ***LCSD*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**VOA8260**						**X01520-003**	
XG.2001.1829.3		4-Bromofluorobenzene (SS)	97	% Recovery		1	NA		12-12-01
XG.2001.1829.3		Dibromofluoromethane (SS)	100	% Recovery		1	NA		12-12-01
XG.2001.1829.3		Toluene-D8 (SS)	102	% Recovery		1	NA		12-12-01

Sample: ***MB*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**VOA8260**						**X01520-001**	
XG.2001.1829.1		1,2 Dichloroethane-D4 (SS)	100	% Recovery		1	NA		12-12-01
XG.2001.1829.1		4-Bromofluorobenzene (SS)	98	% Recovery		1	NA		12-12-01
XG.2001.1829.1		Dibromofluoromethane (SS)	99	% Recovery		1	NA		12-12-01
XG.2001.1829.1		Toluene-D8 (SS)	103	% Recovery		1	NA		12-12-01
X01520		**VOA8260**						**X01520-015**	
XG.2001.1801.1		1,2 Dichloroethane-D4 (SS)	102	% Recovery		1	NA		12-14-01
XG.2001.1801.1		4-Bromofluorobenzene (SS)	97	% Recovery		1	NA		1[illegible]
XG.2001.1801.1		Dibromofluoromethane (SS)	101	% Recovery		1	NA		12-14-01
XG.2001.1801.1		Toluene-D8 (SS)	104	% Recovery		1	NA		12-14-01
X01520		**VOA8260**						**X01520-020**	
XG.2001.1806.1		1,2 Dichloroethane-D4 (SS)	103	% Recovery		1	NA		12-17-01
XG.2001.1806.1		4-Bromofluorobenzene (SS)	96	% Recovery		1	NA		12-17-01
XG.2001.1806.1		Dibromofluoromethane (SS)	101	% Recovery		1	NA		12-17-01
XG.2001.1806.1		Toluene-D8 (SS)	103	% Recovery		1	NA		12-17-01
X01520		**VOA8260**						**X01520-025**	
XG.2001.1819.5		1,2 Dichloroethane-D4 (SS)	100	% Recovery		1	NA		12-18-01
XG.2001.1819.5		4-Bromofluorobenzene (SS)	96	% Recovery		1	NA		12-18-01
XG.2001.1819.5		Dibromofluoromethane (SS)	100	% Recovery		1	NA		12-18-01
XG.2001.1819.5		Toluene-D8 (SS)	104	% Recovery		1	NA		12-18-01
X01520		**VOA8260**						**X01520-031**	
XG.2001.1825.3		1,2 Dichloroethane-D4 (SS)	104	% Recovery		1	NA		12-19-01
XG.2001.1825.3		4-Bromofluorobenzene (SS)	96	% Recovery		1	NA		12-19-01
XG.2001.1825.3		Dibromofluoromethane (SS)	102	% Recovery		1	NA		12-19-01
XG.2001.1825.3		Toluene-D8 (SS)	104	% Recovery		1	NA		12-19-01
X01520		**VOA8260**						**X01520-035**	
XG.2001.1833.1		1,2 Dichloroethane-D4 (SS)	102	% Recovery		1	NA		12-20-01
XG.2001.1833.1		4-Bromofluorobenzene (SS)	98	% Recovery		1	NA		12-20-01
XG.2001.1833.1		Dibromofluoromethane (SS)	101	% Recovery		1	NA		12-20-01
XG.2001.1833.1		Toluene-D8 (SS)	103	% Recovery		1	NA		12-20-01

Assaigai Analytical Laboratories, Inc.

QC Surrogate Summary

Client: **MEVATEC CORPORATION**

ct: **800A9 HWSF EVAPORATION TANK**

Order: **0112234 MEVA1E**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Sample: ***MS*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**VOA8260**						**X01520-007**	
XG.2001.1829.5		1,2 Dichloroethane-D4 (SS)	101	% Recovery		1	NA		12-12-01
XG.2001.1829.5		4-Bromofluorobenzene (SS)	100	% Recovery		1	NA		12-12-01
XG.2001.1829.5		Dibromofluoromethane (SS)	100	% Recovery		1	NA		12-12-01
XG.2001.1829.5		Toluene-D8 (SS)	102	% Recovery		1	NA		12-12-01

Sample: ***MSD*** Matrix: ***WATER***

Run Sequence	CAS #	Analyte	Result	Units	Range	Dilution Factor	Detection Limit	Code	Run Date
X01520		**VOA8260**						**X01520-008**	
XG.2001.1829.6		1,2 Dichloroethane-D4 (SS)	102	% Recovery		1	NA		12-12-01
XG.2001.1829.6		4-Bromofluorobenzene (SS)	99	% Recovery		1	NA		12-12-01
XG.2001.1829.6		Dibromofluoromethane (SS)	102	% Recovery		1	NA		12-12-01
XG.2001.1829.6		Toluene-D8 (SS)	103	% Recovery		1	NA		12-12-01

APPENDIX K

Soil Cuttings Disposal Manifest

Form Approved. OMB No. 2050-0039. Expires 9-30-96

5. Page 1 of	Information in the shaded areas is not required by Federal law.

9. Designated Facility Name and Site Address — 10. US EPA ID Number

Las Cruces Transfer Station
Las Cruces, NM

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. Non-regulated solid (Soil cuttings)	1	CM	13 yds	P
b.				
c.				
d.				

Public reporting burden for this collection of information is estimated to average 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate ... Protection Agency, 401 M Street, SW., Washington, D.C. 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: ... If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month Day Year
[illegible] R. Smith	[signature]	02 13 0[illegible]

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
Southwest Disposal Corp	[signature]	02 [illegible]

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month Day Year