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

ENTERED

March 13, 2002

REPLY TO
ATTENTION OF:
Environment and Safety Directorate

MAR 2002

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 fall 2001 Groundwater Monitoring Report for the High Energy Laser Systems Test Facility Chromium Spill Site (Solid Waste Management Unit 143)

Dear Ms. Frischkorn:

White Sands Missile Range submits the subject report as required by our permit. Required data and supporting documentation are included in the attachment:

Report of the Fall 2001 Groundwater Sampling Event at the High Energy Laser Systems Test Facility (HELSTF) Chromium Spill Site

A total of nine wells are used to monitor this site. Since inception and due primarily to the isolated nature of this geoligic area, which forms a closed basin with no natural outflow, high levels of many naturally occuring contaminents and minerals have been detected. Although these are above state Water Quality Control Commission standards, their relatively stable levels in this type of aquifer (with TDS varying between 8,000 and 44,000) indicate that they are naturally occurring and are not subject to remedial action.

Chromium and Hexavalent Chromium are consistently present at levels exceeding WQCC standards in wells 11, 39, and 41; and trichloroethene is also consistently present in well 41. No movement of these substances within the aquifer has been detected since monitoring began, and the detected levels appear to be static, varying little between sampling events. WSMR will continue to monitor this site as part of the overall HELSTF groundwater monitoring program.

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 for knowing violations."

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.

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

Sincerely,

Thomas A. Ladd

Thomas A. Ladd
Director, Environment and
Safety Directorate

Enclosures

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REPORT OF FALL 2001 GROUNDWATER SAMPLING EVENT AT THE HIGH ENERGY LASER SYSTEMS TEST FACILITY (HELSTF) CHROMIUM SPILL SITE

Submitted to:

US Army
White Sands Missile Range
Directorate of Environment and Safety
White Sands Missile Range, New Mexico 88002-5048

February 2001

Submitted by:

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

EXECUTIVE SUMMARY

The High Energy Laser Systems Test Facility (HELSTF) Chromium Spill Site is designated as Solid Waste Management Unit (SWMU) 143 and as WSMR-54 in the Defense Site Environmental Restoration Tracking System (DSERTS). The Site is located at HELSTF in Otero County, New Mexico. Chromium concentrations in the groundwater resulted from an accidental spill of Entec 300, a Cr (VI)-based corrosion inhibitor. Deionized water containing Cr (VI) was in use at the time as a corrosion inhibitor and was circulated through a closed loop coolant system of the high energy laser testing units. The Chromium Spill Site was originally discovered in 1990 during preparations to pave the site. Upon initial discovery, 17 drums of contaminated soil were excavated and disposed of.

The HELSTF Chromium Spill Site has been the subject of groundwater monitoring, since 1998 to monitor the concentration of contaminants in the groundwater. Samples are collected semiannually from nine on-site monitoring wells (HMW-11, HMW-13, HMW-36, HMW-37, HMW-38, HMW-39, HMW-40, HMW-41 and HMW-43) and are analyzed for a suite of analytes that includes volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), metals, explosive residues, pesticides, herbicides, dissolved ions, petroleum hydrocarbons, and a specific set of water quality parameters. Before samples are collected, wells are purged and monitored for temperature, pH, conductivity and appearance. All data is recorded in a bound field logbook.

This report presents the Fall 2001 sampling event results. Based on this data, no concentrations of SVOCs, petroleum hydrocarbons, explosives, pesticides or herbicides were detected above New Mexico Water Quality Control Commission (NMWQCC) standards. Analysis of VOCs revealed concentrations that exceeded the standards for trichloroethene in HMW-41. Analysis of metals revealed concentrations that exceeded the NMWQCC standards for boron in HMW-11, HMW-13, HMW-36, HMW-37, HMW-38, HMW-39, HMW-40, HMW-41 and HMW-43; Chromium in HMW-11, HMW-39 and HMW-41; Hexavalent chromium in HMW-11, HMW-13, HMW-38 and HMW-41; Iron in HMW-11; Manganese in HMW-36; Molybdenum in HMW-40; Selenium in HMW-11, HMW-38, HMW-39, HMW-40 and HMW-41. Analysis of water quality parameters revealed concentrations that exceeded the NMWQCC standards of nitrate in HMW-11, HMW-13, HMW-36, HMW-37, HMW-38, HMW-39, HMW-40, HMW-41 and HMW-43; sulfate in HMW-11, HMW-36, HMW-37, HMW-38, HMW-39, HMW-40, HMW-41 and HMW-43; TDS in HMW-11, HMW-13, HMW-36, HMW-37, HMW-38, HMW-39, HMW-40, HMW-41 and HMW-43; chloride in HMW-11, HMW-13, HMW-36, HMW-37, HMW-38, HMW-39, HMW-40, HMW-41 and HMW-43. Analysis of dissolved salts revealed concentrations that exceeded the NMWQCC standards for sodium HMW-11, HMW-13, HMW-36, HMW-37, HMW-38, HMW-39, HMW-40, HMW-41, and HMW-43. Based on data from the Fall 2001 sampling event, contaminants are present in the groundwater at the HELSTF Chromium Spill. The high concentrations of contaminants detected were due to naturally occurring water chemistry found in the Tularosa Basin.

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LIST OF ABBREVIATIONS, ACRONYMS, AND SYMBOLS

AA-GF	Atomic Absorption-Graphite Furnace
DSERTS	Defense Site Environmental Restoration Tracking System
EPA	Environmental Protection Agency
^{o}F	Degrees Fahrenheit
ft	feet
GC	Gas Chromatography
GC/MS	Gas Chromatograph/Mass Spectrometer
HA	EPA HA standard
HELSTF	High Energy Laser Systems Test Facility
HPLC	High Performance Liquid Chromatograph
ICP/AES	Inductively Coupled Plasma/Atomic Emission Spectrometry
km	kilometers
m	meter
MCL	EPA MCL standard
mg/L	milligrams per liter
mi	mile
NA	Analyte was no analyzed
NAD83	North American Datum, 1983
NAVD88	North American Vertical Datum, 1988
NE	No NMWQCC, EPA MCL, or EPA HA standard established
ND	Analyte was not detected above reporting limits
NMWQCC	New Mexico Water Quality Control Commission
PVC	Plolyvinyl Chloride
QA	quality assurance
QC	quality control
RCRA	Resource Conservation and Recovery Act
SVOC	Semi-volatile Organic Compounds
SWMU	Solid Waste Management Unit
TDS	Total Dissolve Solids
TOC	Total Organic Carbon
µg/L	micrograms per liter
µS/cm	microsiemens per centimeter
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compounds
WSMR	White Sands Missile Range

REPORT OF FALL 2001 GROUNDWATER SAMPLING EVENT AT THE HIGH ENERGY LASER SYSTEMS TEST FACILITY (HELSTF) CHROMIUM SPILL SITE

1.0 INTRODUCTION

The High Energy Laser System Test Facility (HELSTF) Chromium Spill Site is located at HELSTF in the southeast portion of White Sands Missile Range (Figure 1-1) It is designated WSMR-54 in the Defense Site Environmental Restoration Tracking System (DSERTS) and Solid Waste Management Unit (SWMU)-143 in the Resource Conservation and Recovery Act (RCRA) Part B Permit Corrective Action Module VIII. Nine on-site monitoring wells are sampled semiannually to monitor concentrations of contaminants in the groundwater as a part of the Installation Restoration Program. Chromium concentrations in the groundwater resulted from an accidental spill of Entec 300, a hexavalent chromium corrosion inhibitor. The Chromium Spill Site was discovered in 1990 during preparations to pave the site.

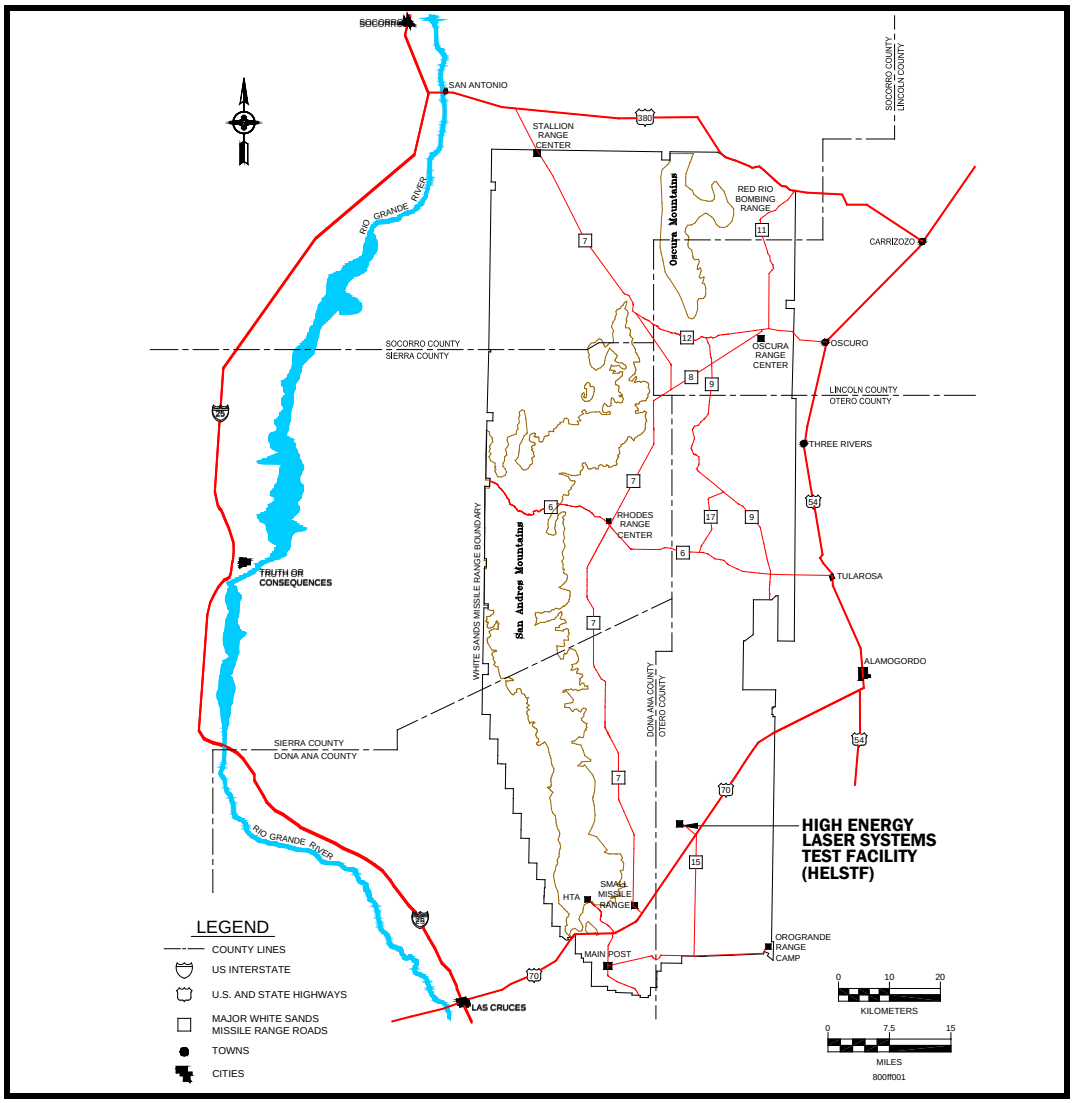


Figure 1-1. HELSTF Chromium Spill Site Site Location Map.

The HELSTF Chromium Spill Site has been subjected to monitoring to evaluate the concentrations of contaminants in the groundwater. Sample event data graphed as a function of time is included in Appendix A. Samples are collected semiannually from nine on-site monitoring wells (HMW-11, HMW-13, HMW-36, HMW-37, HMW-38, HMW-39, HMW-40, HMW-41 and HMW-43, shown on Figure 1-2) and are analyzed for a suite of analytes that includes volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, explosive residues, pesticides, herbicides, dissolved ions and petroleum hydrocarbons. Analytical results of the samples are compared to New Mexico Water Quality Control Commission (NMWQCC) standards. Before samples are collected, the nine on-site wells are purged and monitored for temperature, pH, conductivity and appearance. All data is recorded in a bound field logbook.

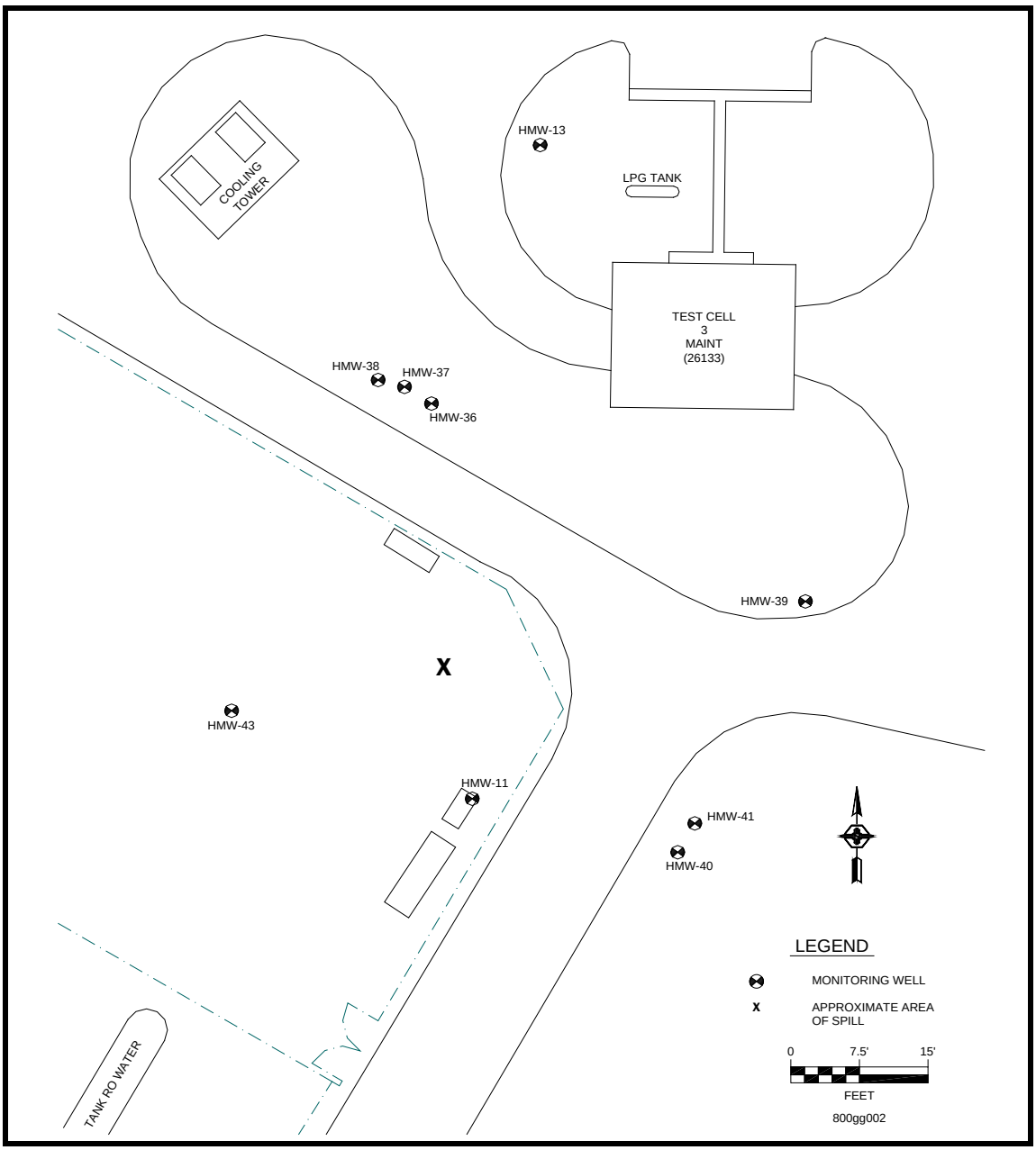


Figure 1-2. HELSTF Chromium Spill Site Diagram.

1.1 Site Description

The HELSTF Chromium Spill Site is located inside HELSTF south of Test Cell 3 and north of the Sewage Lagoons. The site is graded and leveled with a well-sorted gravel cover and an asphalt cap. The low relief topography of the site is shown on Figure 1-3.

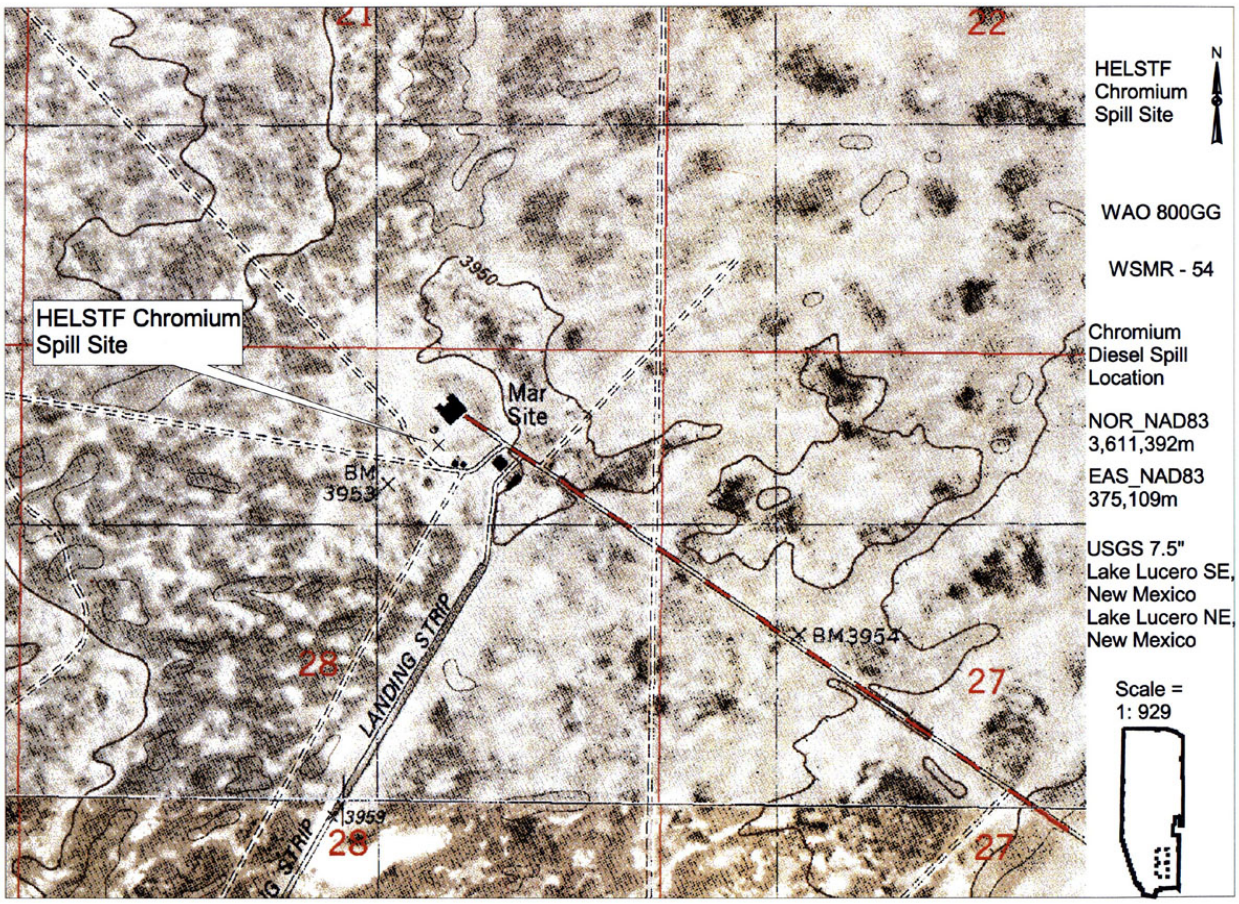


Figure 1-3. HELSTF Chromium Spill Site USGS Topographic Map.

1.2 Hydrogeology

Subsurface geologic conditions at the HELSTF Diesel Spill Site were characterized from stratigraphic descriptions logged during drilling activities. The deposits are characterized by thickly bedded clay with numerous, intermittent, thinly bedded units of Quaternary/Tertiary-aged sandy silt, sand, gravelly-sand, and gravel originating from the San Andres Mountains, west of the landfill site.

High TDS concentrations are naturally occurring at this location in the Tularosa Basin. The Tularosa Basin is a closed basin, which does not permit the water to exit the region. Rainwater and snowmelt run off the mountains towards the center of the basin. Natural transportation of the water across the surface and infiltration through the soil dissolves the feldspars from the granitic formations in the mountains as well as the gypsum and other salt based soils in the basin.

This process causes the high concentrations of sulfates, calcium, chlorides, magnesium, potassium, and sodium in groundwater samples.

The elevated concentrations of boron found in the groundwater are likely naturally occurring. Borate minerals form chiefly in arid to semi-arid environments, are of a sedimentary origin, and are generally deposited in playas from the evaporation of and precipitation from saline surface waters. Borates are readily soluble in water and tend to percolate through the soil adding boron to the groundwater of this region.

Selenium is another naturally occurring mineral found in the groundwater. The presence of selenium in the soil and groundwater is likely due to the erosion of volcanic derived rocks present in this region. Selenium, when present in alkaline soils, commonly oxidizes to the mineral selenate. Selenate, like boron, is highly soluble in water and percolates to the groundwater.

2.0 GROUNDWATER MONITORING

For each monitoring well sampled, representatives record the date, personnel on-site, significant times, well number, air temperature, relative humidity and general weather conditions in a field log book. A purge volume is calculated for each well by obtaining depth to water, total well depth and well casing diameter. During purging, the well is monitored for temperature, pH, conductivity and appearance, which are recorded by time and volume of water purged.

Each sample is collected in new certified clean containers for laboratory chemical analysis of a suite of analytes that includes VOCs, SVOCs, metals, explosive residues, cyanide, dissolved ions, petroleum hydrocarbons, and a specific set of water quality parameters. An analyte list is included as Table 2-1 on the following page.

Following sampling, any equipment that has come into contact with the groundwater is decontaminated using an Alconox/water solution and a water rinsate. All purge and decontamination water is containerized for analysis and proper off-site disposal. A complete description of standard operating procedures used to acquire field measurements and collect groundwater samples are included as Appendix B. A copy of the drum log and disposal manifest is included as Appendix C.

3.0 REGULATORY CRITERIA

All laboratory analytical results are compared to NMWQCC standards for groundwater.

4.0 GROUNDWATER MONITORING RESULTS

The monitoring wells at the HELSTF Chromium Spill Site were monitored on July 31 and August 1, 2001. Each monitoring well was monitored in accordance with established protocols described in Section 2.0. Well location and construction data is listed in Table 4-1.

Table 2-1. HELSTF Chromium Spill Site Analyte List.

Parameter		Reference Method	Method Type
CO_3^{-2} & HCO_3^- Alkalinity PH Conductance TDS Chloride Fluoride Sulfate Nitrate (NO_3) Nitrite (NO_2) Bromide		EPA 310.1 EPA 150.1 EPA 120.1 EPA 160.1 EPA 300.0	Titrimetric Electrometric Conductivity Meter Gravimetric Ion Chromotography
Ammonium Perchlorate		EPA 314.0	Ion Chromotography
Nutrients			
Ammonia(NH_3+NH_4) TKN Total Phosphorous		EPA 350.1 EPA 351.2 EPA 365.1	Colorimetric Colorimetric Colorimetric
Aluminum Arsenic**** Barium Beryllium Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead ** Magnesium	Manganese Molybdenum Nickel Selenium*** Silicon Silver Strontium Tin Vanadium Zinc	 SW846 7060A**** SW846 7740*** SW846 7421**	ICP/AES unless noted AA-GF**** AA-GF**
Mercury#		SW846-7470	Cold Vapor-AA
Chromium $^{6+}$*		SW846 7196A*	Spectrophotometer*
Aluminum Arsenic**** Barium Beryllium Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead ** Lithium Magnesium	Manganese Molybdenum Nickel Potassium Selenium Silicon Silver Sodium Strontium Tin Vanadium Zinc	SW846 7060A**** SW846 7740*** SW846 7421**	ICP/AES unless noted AA-GF****
VOC's		SW846 8260A	GC/MS
SVOC's		SW846 8270	GC/MS
Pesticides		SW846 8081	GC
Herbicides		SW846 8151	GC
Explosives		SW846-8330	HPLC
Petroleum Hydrocarbons		EPA 8015 (mod) DRO	GC
TOC		SW846-9060	TOC analyzer

Notes:
EPA – Environmental Protection Agency
mg/L – milligrams per liter equivalent to parts per million
µg/L – micrograms per liter parts per billion
TOC – Total Organic Carbon
GC – Gas Chromatography

Table 4-1. Well Location and Construction Data.

Well No.	Northing[1]	Easting[1]	Elevation[2] Brass Marker-ft (m)	Elevation[2] Top of PVC-ft (m)	Total Well Depth – ft (m)	Screen Interval-ft (m)
HMW-11	3611299.870	375081.008	3954.16 (1205.23)	3955.51 (1205.64)	64.0 (19.5)	47.0-62.0 (14.3-18.9)
HMW-13	3611371.793	375088.433	3954.95 (1205.47)	3956.27 (1205.87)	47.0 (14.3)	32.0-42.0 (9.8-12.8)
HMW-36	3611343.350	375076.553	3953.45 (1205.01)	3955.92 (1205.76)	21.0 (6.4)	11.0-12.0 (3.4-6.4)
HMW-37	3611345.186	375073.602	3953.75 (1205.10)	3956.31 (1205.88)	42.0 (12.8)	27.0-42.0 (8.2-12.8)
HMW-38	3611345.943	375070.721	3954.08 (1205.20)	3956.52 (1205.95)	62.0 (18.90)	52.0-62.0 (15.8-18.9)
HMW-39	3611321.580	375117.437	3952.90 (1204.84)	3955.60 (1205.67)	62.0 (18.90)	52.0-62.0 (15.8-18.9)
HMW-40	3611293.981	375103.474	3951.54 (1204.43)	3953.85 (1205.13)	38.0 (11.6)	28.0-38.0 (8.5-11.6)
HMW-41	3611297.156	37501.341	3951.53 (1204.43)	3953.89 (1205.15)	59.0 (18.0)	49.0-59.0 (14.9-18.0)
HMW-43	3611309.551	375054.699	3954.57 (1205.35)	3957.22 (1206.16)	62.5 (19.1)	52.5-62.5 (16.0-19.1)

Notes: 1. Universal Transverse Mercator (UTM) Coordinate Systems, Zone 13, North American Datum 1983 (NAD83)
2. Elevations are based on North American Vertical Datum, 1988 (NAVD88)
PVC – Plolyvinyl Chloride
m – meters
ft – feet

Prior to sampling, depth to water is measured and the wells are purged and monitored for temperature, pH, conductivity and physical characteristics (clarity, color and odor). Water quality measurements collected during purging are listed in Table 4-2. The water quality measurements fluctuate on a seasonal basis or affected by the artificial recharge areas for the HELSTF perched water-bearing zones.

Table 4-2. Field Water Quality Measurements HELSTF Chromium Spill Site Fall 2001 Sampling Event.

Well No.	Date Sampled	Temperature °F (°C)	PH	Conductivity µS/cm	Depth to Water ft (m)	Groundwater Elevations ft (m)	Comments
HMW-11	7/31/01	75.1 (23.9)	7.41	16,340	45.9 (13.99)	3908.26 (1191.24	Clear
HMW-13	7/31/01	76.9 (24.9)	7.92	7,000	40.98 (12.49)	3913.97 (1192.98)	Clear/cloudy
HMW-36	8/01/01	79.7 (26.5)	7.16	7,990	19.47 (5.93)	3933.98 (1199.07)	Clear
HMW-37	8/01/01	75.3 (24.0)	7.47	4,570	36.11 (11.00)	3917.64 (1194.10)	Clear
HMW-38	8/01/01	81.1 (27.2)	8.72	15,090	42.73 (13.02)	3911.35 (1192.18)	Clear
HMW-39	7/31/01	78.0 (25.5)	7.71	17,850	41.84 (12.75)	3911.06 (1192.09)	Clear
HMW-40	8/01/01	78.9 (26.0)	7.91	Off Scale	22.59 (6.88)	3928.95 (1197.54)	Cloudy
HMW-41	8/01/01	76.0 (24.4)	7.40	19,050	41.52 (12.65)	3910.01 (1191.77)	Clear
HMW-43	7/31/01	76.7 (24.8)	7.56	8,160	40.19 (12.24)	3908.67 (1193.11)	Clear/cloudy

Notes: ft = feet °C – Degrees Celsius µS/cm – microsiemens per centimeter
m = meters °F – Degrees Fahrenheit

Based on the depth to water measurements, a groundwater flow direction can be calculated. Monitoring wells HMW-13, HMW-41 and HMW-43 were used in a three-point problem to calculate groundwater flow direction because they surround the approximate area of the spill, they all have similar construction details and they are all within the lower perched water-bearing zone. The groundwater flow direction has been calculated to the southeast and is shown on Figure 4-1. The groundwater flow direction has remained fairly consistent indicating no gradient changes.

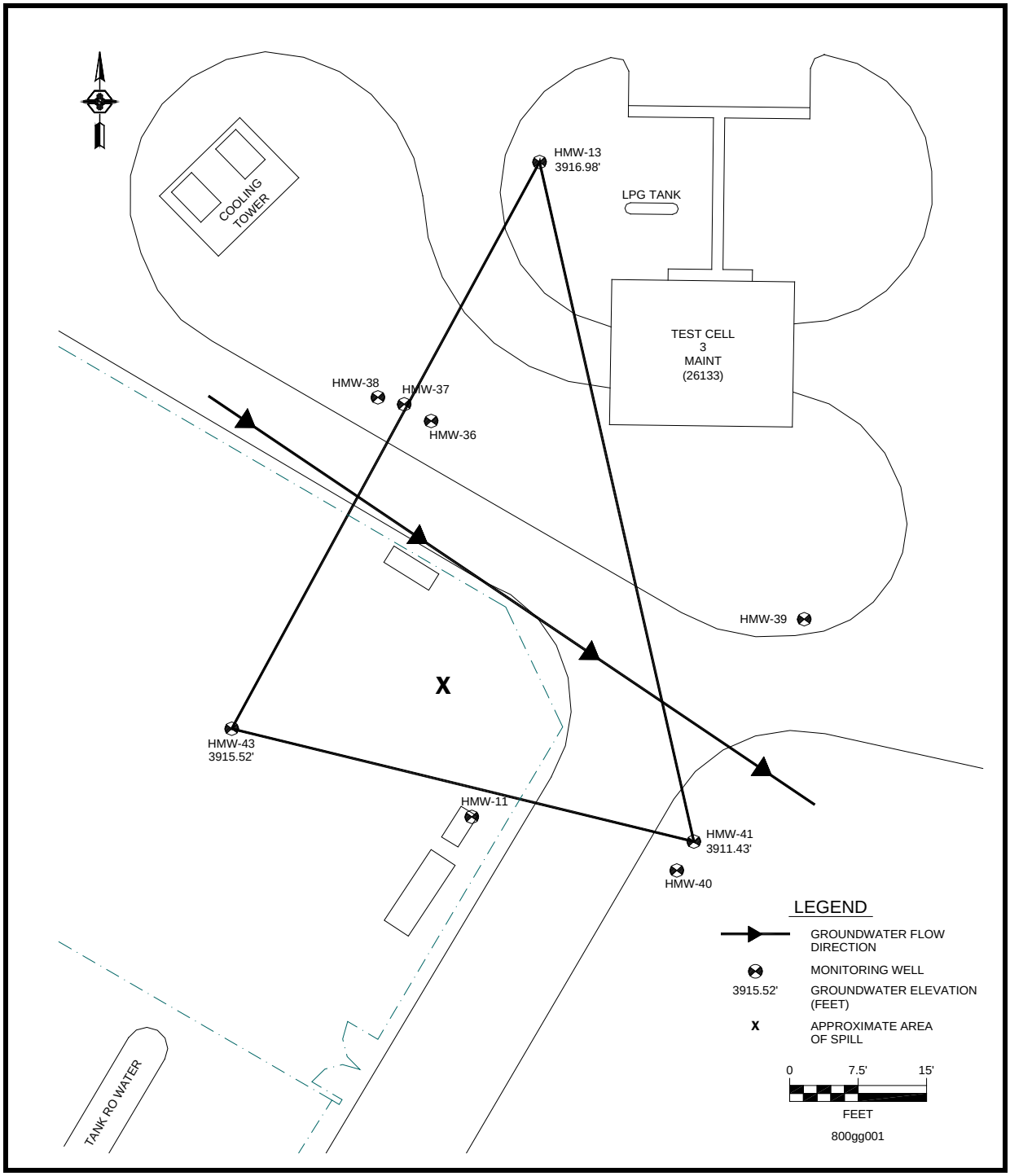


Figure 4-1. Groundwater Flow Direction.

5.0 GROUNDWATER CHEMICAL ANALYTICAL DATA

The monitoring wells at the HELSTF Chromium Spill Site were sampled on July 31 and August 1, 2001. Each monitoring well was sampled in accordance with established protocols described in Section 2.0. Primary samples were collected from all wells. Separate samples volumes were collected for quality assurance (QA) analysis from HMW-13 and HMW-39.

Concentrations of detected analytes are presented in Table 5-1 on the following page. The complete set of analytical results for the sampling event is presented in Appendix D.

Analysis of VOCs revealed concentrations of trichloroethene in HMW-41 of 269 µg/L, which exceeds the NMWQCC standard of 100 µg/L.

Analysis of total metals revealed respective concentrations of boron in HMW-11, HMW-13, HMW-36, HMW-37, HMW-38, HMW-39, HMW-40, HMW-41 and HMW-43 of 5.97 mg/L, 3.91 mg/L, 13.26 mg/L, 3.74 mg/L, 6.99 mg/L, 5.32 mg/L, and 8.21 mg/L, 2.79 mg/L and 5.56 mg/L which exceed the NMWQCC standard of 0.75 mg/L. Analysis revealed respective concentrations of chromium in HMW-11, HMW-39, and HMW-41 of 0.217 mg/L, 0.325 mg/L, and 2.04 mg/L, which exceed the NMWQCC standard of 0.05 mg/L. Analysis revealed respective concentrations of hexavalent chromium in HMW-11, HMW-13, HMW-38 and HMW-41 of 0.290 mg/L, 0.401 mg/L, 0.06 mg/L and 2.5 mg/L which exceed the NMWQCC standard of 0.05 mg/L. Analysis revealed respective concentrations of iron in HMW-11 of 2.79 mg/L, which exceed the NMWQCC standard of 1 mg/L. Analysis revealed concentrations of manganese in HMW-36 of 0.413 mg/L, which exceeds the NMWQCC standard of 0.2 mg/L. Analysis revealed respective concentrations of molybdenum in HMW-40 of 1.23 mg/L, which exceed the NMWQCC standard of 1 mg/L. Analysis revealed respective concentrations of selenium in HMW-11, HMW-38, HMW-39, HMW-40 and HMW-41 of 0.125 mg/L, 0.101 mg/L, 0.145 mg/L, 0.403 mg/L and 0.207 mg/L, which exceed the NMWQCC standard of 0.05 mg/L.

Analysis of dissolved metals revealed respective concentrations of boron in HMW-11, HMW-13, HMW-36, HMW-37, HMW-38, HMW-39, HMW-40, HMW-41 and HMW-43 of 5.35 mg/L, 5.36 mg/L, 13.0 mg/L, 5.33 mg/L, 9.91 mg/L, 6.46 mg/L and 8.00 mg/L, 4.44 mg/L and 7.97 mg/L which exceed the NMWQCC standard of 0.75 mg/L. Analysis revealed respective concentrations of chromium in HMW-11, HMW-39 and HMW-41 of 0.188 mg/L, 0.274 mg/L, and 1.76 mg/L, which exceed the NMWQCC standard of 0.05 mg/L. Analysis revealed respective concentrations of manganese in HMW-36 of 0.398 mg/L, which exceeds the NMWQCC standard of 0.2 mg/L. Analysis revealed respective concentrations of selenium in HMW-11, HMW-39, and HMW-41 of 0.134 mg/L, 0.14 mg/L and 0.186 mg/L, which exceed the NMWQCC standard of 0.05 mg/L.

Table 5-1. HELSTF Chromium Spill Site Detected Analytes.

METHOD	ANALYTE	UNIT	NMWQCC STD.	HMW-11	HMW-13	HMW-13 QC	HMW-36	HMW-37	HMW-38	HMW-39	HMW-39 QC	HMW-40	HMW-41	HMW-43
	VOC'S													
EPA 8260B	1,1-Dichloroethene	µg/L	5	ND	ND	ND	ND	ND	ND	1.42	1.27	ND	ND	ND
EPA 8260B	1,1-Dichloroethane	µg/L	25	2.33	ND	ND	8.29	ND	ND	ND	ND	ND	ND	ND
EPA 8260B	Carbon Disulfide	µg/L	NE	ND	1.35	14.6	ND	ND	ND	ND	ND	ND	ND	ND
EPA 8260B	Chloroform	µg/L	100	1.81	1.22	1.01	ND	ND	ND	2.06	1.64	ND	ND	ND
EPA 8260B	Trichloroethene	µg/L	100	51.5	ND	ND	ND	ND	14.1	63.5	49.8	ND	**269**	1.13
EPA 8260B	Iodomethane	µg/L	NE	ND	ND	10.3	ND	ND	ND	ND	ND	ND	ND	ND
EPA 8260B	Isopropylbenzene	µg/L	NE	ND	ND	ND	1.84	ND	ND	ND	ND	ND	ND	ND
EPA 8260B	Sec-Butylbenzene	µg/L	NE	ND	ND	ND	1.47	ND	ND	ND	ND	ND	ND	ND
	DRO													
8015B	Gasoline Range Organics	mg/L	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.117	ND
	TOTAL METALS													
EPA 6010B	Aluminum	mg/L	5	4.54	ND	ND	0.259	0.221	ND	ND	ND	1.02	ND	ND
EPA 6010B	Boron	mg/L	0.75	**5.97**	**3.91**	**3.88**	**13.26**	**3.74**	**6.99**	**5.32**	**5.09**	**8.21**	**2.79**	**5.56**
EPA 6010B	Chromium	mg/L	0.05	**0.217**	ND	ND	ND	ND	0.0421	**0.325**	**0.328**	0.0128	**2.04**	ND
SM 3500-Cr D	Hexavalent Chromium	mg/L	0.05	**0.290**	**0.401**	**0.402**	ND	ND	**0.06**	ND	ND	ND	**2.5**	ND
EPA 6010B	Copper	mg/L	1.0	ND	ND	ND	0.017	ND	ND	0.042	ND	ND	ND	ND
EPA 6010B	Iron	mg/L	1	**2.79**	0.665	0.171	0.476	0.17	0.0579	ND	ND	0.558	0.106	0.254
EPA 6010B	Lead	mg/L	0.05	ND	ND	0.0103	0.0176	ND	ND	ND	ND	0.0153	ND	ND
EPA 6010B	Manganese	mg/L	0.2	0.038	ND	ND	**0.413**	ND	ND	ND	ND	ND	ND	ND
S 7470A	Mercury	mg/L	0.002	ND	ND	ND	ND	0.00032	ND	ND	ND	ND	ND	ND
EPA 6010B	Molybdenum	mg/L	1	0.442	0.227	0.224	0.211	0.163	0.696	0.864	0.876	**1.23**	0.242	0.423
EPA 6010B	Nickel	mg/L	0.2	ND	ND	ND	ND	ND	ND	0.0279	0.0296	ND	0.112	ND
EPA 6010B	Phosphorus	mg/L	NE	0.316	0.274	0.26	0.053	0.274	0.29	0.276	0.289	0.0725	0.304	0.281
EPA 6010B	Selenium	mg/L	0.05	**0.125**	ND	ND	ND	ND	**0.101**	**0.145**	**0.15**	**0.403**	**0.207**	ND
EPA 6010B	Silica	mg/L	NE	21.8	9.43	9.49	7.6	10.8	15.5	15.2	15.7	9.76	16.1	16.8
EPA 6010B	Silver	mg/L	0.05	0.0168	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
EPA 6010B	Strontium	mg/L	17 (HA)	7.06	7.34	7.04	9.58	7.37	5.84	7.89	7.68	9.84	8.68	3.73
EPA 6010B	Vanadium	mg/L	0.02 (HA)	0.0353	ND	ND	0.029	ND	0.028	0.0261	0.0251	ND	ND	ND
EPA 6010B	Zinc	mg/L	10	0.0274	0.125	0.0534	ND	ND	ND	0.0395	ND	0.0286	ND	ND
	DISSOLVED METALS													
EPA 6010B	Boron	mg/L	0.75	**5.35**	**5.36**	**5.22**	**13.0**	**5.33**	**9.91**	**6.46**	**5.93**	**8.00**	**4.44**	**7.97**
EPA 6010B	Chromium	mg/L	0.05	**0.188**	ND	ND	ND	ND	ND	**0.274**	**0.286**	ND	**1.76**	ND
EPA 6010B	Lithium	mg/L	NE	0.522	0.342	0.344	0.516	0.325	0.424	0.56	0.564	0.875	0.71	0.356
EPA 6010B	Manganese	mg/L	0.2	ND	ND	ND	**0.398**	ND	ND	ND	ND	ND	ND	ND
EPA 6010B	Molybdenum	mg/L	1	0.393	0.218	0.218	0.188	0.161	0.620	0.734	0.766	1.26	0.207	0.412
EPA 6010B	Nickel	mg/L	0.2	0.015	ND	ND	ND	ND	ND	0.022	0.024	0.414	0.107	ND
EPA 6010B	Selenium	mg/L	0.05	**0.134**	ND	ND	0.043	ND	ND	**0.14**	**0.147**	ND	**0.186**	ND
EPA 6010B	Silica	mg/L	NE	14.14	10.72	10.89	11.1	12.16	15.6	14.96	15.04	5.55	14.35	14.55
EPA 6010B	Strontium	mg/L	17 (HA)	6.88	7.42	7.42	8.26	7.50	5.74	7.51	7.60	9.06	9.03	4.81
EPA 6010B	Vanadium	mg/L	0.02 (HA)	ND	ND	ND	0.015	ND	ND	ND	ND	ND	ND	ND
	GENERAL CHEMISTRY													
SM 2320B	Total Alkalinity	mg/L	NE	180	110	110	790	130	200	180	180	790	240	80
SM 2320B	Bicarbonate Alkalinity	mg/L	NE	180	110	110	790	130	200	180	180	790	240	80
EPA 300.0	Nitrate - N	mg/L	10	**120**	**25.0**	**24**	**13**	**12**	**67**	**140**	**140**	**360**	**160**	**19**
EPA 351.3	Total Kjeldahl Nitrogen-n	Mg/L	NE	ND	9.52	ND	ND	ND	ND	ND	ND	ND	ND	ND
EPA 300.0	Sulfate	mg/L	600	**9,300**	400	**4,100**	**5,300**	**3,200**	**9,000**	**9,200**	**12,000**	**20,000**	**10,000**	**5,500**
SM 2540C	Total Dissolved Solids	mg/L	1,000	**18,000**	**7,000**	**7,000**	**10,000**	**5,800**	**16,000**	**22,000**	**22,000**	**44,000**	**23,000**	**9,400**
EPA 415.1	Total Organic Carbon	mg/L	NE	2.97	2.71	2.13	10.56	1.79	2.75	4.06	4.68	6.57	3.26	4.04
EPA 300.0	Chloride	mg/L	250.0	**3,200**	**490**	**470**	**1,500**	**290**	**1,800**	**3,800**	**4,800**	**14,000**	**4,900**	**550**
EPA 300.0	Fluoride	mg/L	NE	ND	3.5	3.3	3.9	3.2	ND	7.4	ND	8.7	ND	3.5
SM 4500-H+	pH	NE	6.0-9.0	7.92	7.83	7.82	7.78	7.35	7.56	7.59	7.61	7.77	7.34	7.92
SM 2510B	Specific Conductivity	umhos/cm	NE	20,000	7,600	7,500	11,000	5,900	17,000	24,000	24,000	46,000	24,000	10,000
	DISSOLVED SALTS													
S 6010B	Calcium	mg/L	NE	391	386	371	541	397	305	471	446	405	476	341
S 6010B	Magnesium	mg/L	NE	912	317	297	646	312	753	1,081	1,032	2,350	1,115	294
S 6010B	Potassium	mg/L	NE	107	78.3	78.3	143	69.3	131	171	164	295	141	80.2
S 6010B	Sodium	mg/L	20 (HA)	**3,514**	**881**	**1,005**	**1460**	**443**	**3,214**	**3,990**	**3,900**	**7510**	**3,877**	**1,492**

Notes:

mg/L milligrams per liter equivalent to parts per million
µg/L micrograms per liter equivalent to parts per billion
NE No NMWQCC, EPA MCL, or EPA HA standard established
ND Analyte was not detected above reporting limits
NA Analyte was no analyzed
MCL EPA MCL standard
HA EPA HA standard
NMWQCC STD - New Mexico Water Quality Control Commission Standard
Bold analyte exceeds the NMWQCC standard

Analysis of general chemistry revealed respective concentrations of nitrate in HMW-11, HMW-13, HMW-36, HMW-37, HMW-38, HMW-39, HMW-40, HMW-41 and HMW-43 of 120 mg/L, 25.0 mg/L, 13 mg/L, 12 mg/L, 67 mg/L, 140 mg/L, 360 mg/L, 160 mg/L and 19 mg/L, which exceed the NMWQCC standard of 10 mg/L. Analysis revealed respective concentrations of sulfate in HMW-11, HMW-36, HMW-37, HMW-38, HMW-39, HMW-40, HMW-41, HMW-40 and HMW-43 of 9,300 mg/L, 5,300 mg/L, 3,200 mg/L, 9,000 mg/L, 9,200 mg/L, 20,000 mg/L, 10,000 mg/L and 5,500 mg/L, which exceed the NMWQCC standard of 600 mg/L. Analysis revealed respective concentrations of TDS in HMW-11, HMW-13, HMW-36, HMW-37, HMW-38, HMW-39, HMW-40, HMW-41, and HMW-43 of 18,000 mg/L, 7,000 mg/L, 10,000 mg/L, 5,800 mg/L, 16,000 mg/L, 22,000 mg/L, 44,000 mg/L, 23,000 and 9,400 mg/L, which exceed the NMWQCC standard of 1,000 mg/L. Analysis revealed respective concentrations of chloride in HMW-11, HMW-13, HMW-36, HMW-37, HMW-38, HMW-39, HMW-40, HMW-41 and HMW-43 of 250.0 mg/L, 3,200 mg/L, 490 mg/L, 1,500 mg/L, 290 mg/L, 1,800 mg/L, 3,800 mg/L, 14,000 mg/L and 550 mg/L, which exceed the NMWQCC standard of 250.0 mg/L. The high concentrations detected were due to natural occurring water chemistry generally found in the Tularosa Basin.

Analysis of dissolved salts revealed respective concentrations of sodium in HMW-11, HMW-13, HMW-36, HMW-37, HMW-38, HMW-39, HMW-40, HMW-41 and HMW-43 of 3,514 mg/L, 881 mg/L, 1460 mg/L, 443 mg/L, 3,214 mg/L, 3,990 mg/L, 7,510 mg/L, 3,877 mg/L and 1,492 mg/L, which exceed the NMWQCC standard of 20 (HA) mg/L.

6.0 SUMMARY

Groundwater at the HELSTF Chromium Spill Site is monitored for a suite of analytes that includes VOCs, SVOCs, metals, explosive residues, pesticides, herbicides, dissolved ions, petroleum hydrocarbons, and a specific set of water quality parameters. Monitoring at the location is conducted semiannually to monitor the concentrations of contaminants in the groundwater. Samples were collected from nine on-site monitoring wells and separate sample volumes were collected for performance of QC analysis during the sampling event. No concentrations of SVOCs, petroleum hydrocarbons, explosives, pesticides or herbicides were detected above NMWQCC standards.

Analysis of VOCs revealed concentrations that exceeded the NMWQCC standards for trichloroethene in HMW-41.

Analysis of metals revealed concentrations that exceeded the NMWQCC standards for boron in HMW-11, HMW-13, HMW-36, HMW-37, HMW-38, HMW-39, HMW-40, HMW-41 and HMW-43; Chromium in HMW-11, HMW-39 and HMW-41; Hexavalent chromium in HMW-11, HMW-13, HMW-38 and HMW-41; Iron in HMW-11; Manganese in HMW-36; Molybdenum in HMW-40; Selenium in HMW-11, HMW-38, HMW-39, HMW-40 and HMW-41.

Analysis of water quality parameters revealed concentrations that exceeded the NMWQCC standards of nitrate in HMW-11, HMW-13, HMW-36, HMW-37, HMW-38, HMW-39, HMW-40, HMW-41 and HMW-43; sulfate in HMW-11, HMW-36, HMW-37, HMW-38, HMW-39, HMW-40, HMW-41 and HMW-43; TDS in HMW-11, HMW-13, HMW-36, HMW-37, HMW-38, HMW-39, HMW-40, HMW-41 and HMW-43; chloride in HMW-11,

HMW-13, HMW-36, HMW-37, HMW-38, HMW-39, HMW-40, HMW-41 and HMW-43. Analysis of dissolved salts revealed concentrations that exceeded the NMWQCC standards for sodium HMW-11, HMW-13, HMW-36, HMW-37, HMW-38, HMW-39, HMW-40, HMW-41, and HMW-43. The detected high concentrations were due to naturally occurring water chemistry generally found in the Tularosa Basin.

Based on data from the Fall 2001 sampling event, contaminants are present in the groundwater at the HELSTF Chromium Spill Site.

REFERENCES

MEVATEC Corporation, February 2001, Installation Action Plan, February 2001, Draft.

NMED-Hazardous and Radioactive Materials Bureau, 1998. *Position Paper, Section III.B.2.b, Page 1.*

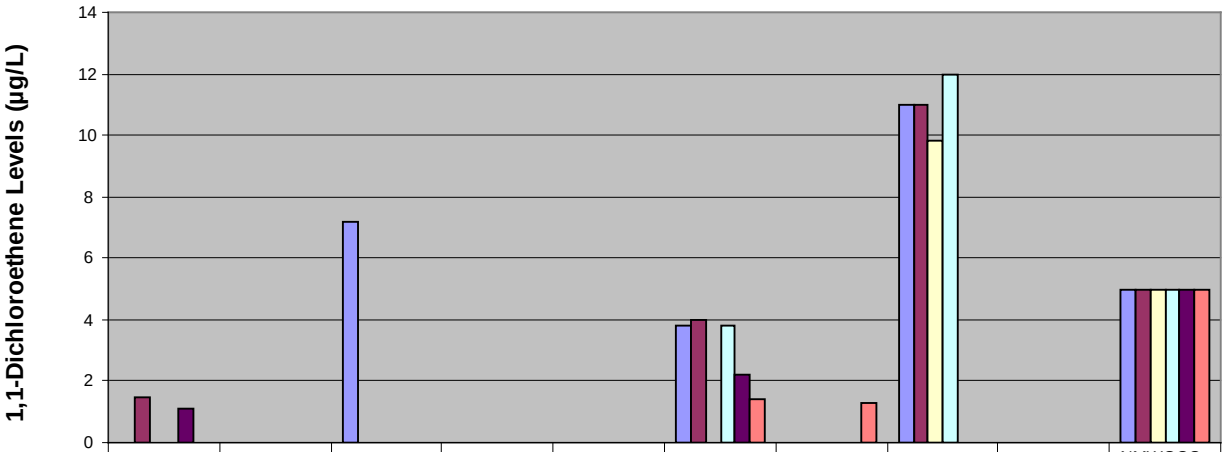
New Mexico Water Quality Control Commission, 1996. New Mexico Water Quality Control Commission Regulations.

U.S. Environmental Protection Agency, May 1995. *Drinking Water Regulations and Health Advisories.*

APPENDIX A

GRAPHS OF ANALYTICAL RESULT TRENDS

HELSTF Chromium Spill Site
Groundwater Sampling Results for 1,1-Dichloroethene

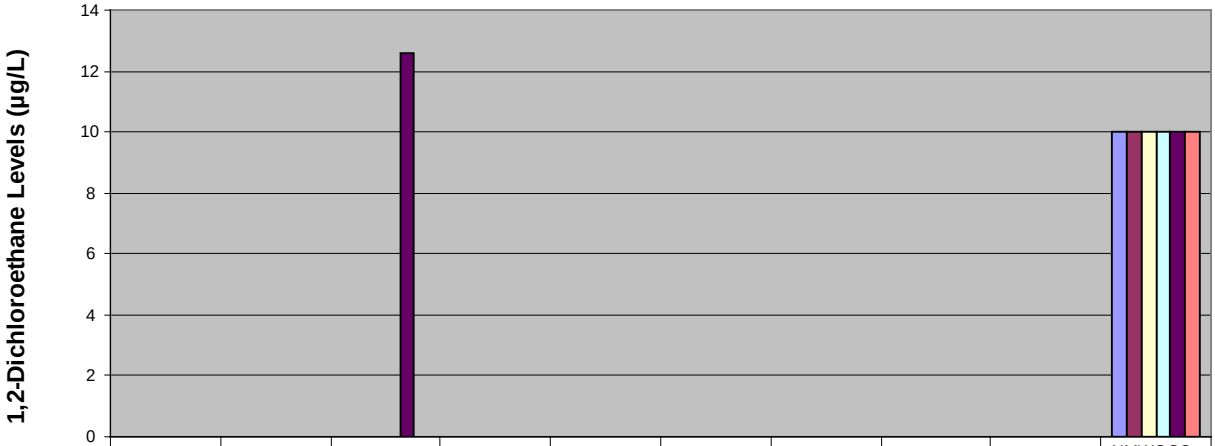


	HMW-11	HMW-13	HMW-36	HMW-37	HMW-38	HMW-39	HMW-40	HMW-41	HMW-43	NMWQCC Standard
Fall 1998	0	0	7.2	0	0	3.8	0	11	0	5
Spring 1999	1.5	0	0	0	0	4	0	11	0	5
Spring 2000	0	0	0	0	0	0	0	9.8	0	5
Fall 2000	0	0	0	0	0	3.8	0	12	0	5
Spring 2001	1.09	0	0	0	0	2.22	0	0	0	5
Fall 2001	0	0	0	0	0	1.42	1.27	0	0	5

Well Name

Note: 0 = Analyte was not detected above reporting limits or Analyte was not analyzed

HELSTF Chromium Spill Site
Groundwater Sampling Results for 1,2-Dichloroethane

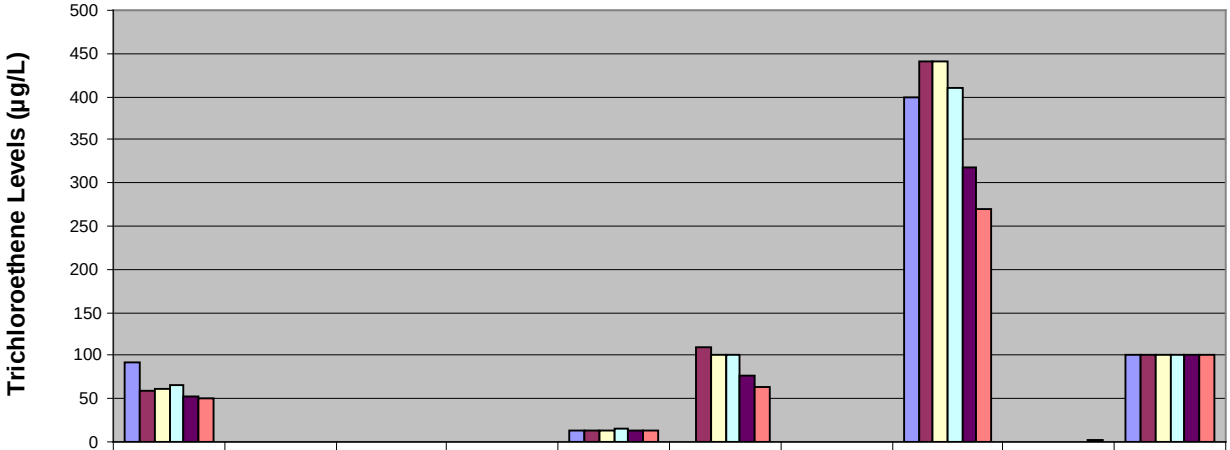


	HMW-11	HMW-13	HMW-36	HMW-37	HMW-38	HMW-39	HMW-40	HMW-41	HMW-43	NMWQCC Standard
Fall 1998	0	0	0	0	0	0	0	0	0	10
Spring 1999	0	0	0	0	0	0	0	0	0	10
Spring 2000	0	0	0	0	0	0	0	0	0	10
Fall 2000	0	0	0	0	0	0	0	0	0	10
Spring 2001	0	0	12.6	0	0	0	0	0	0	10
Fall 2001	0	0	0	0	0	0	0	0	0	10

Well Name

Note: 0 = Analyte was not detected above reporting limits or Analyte was not analyzed

HELSTF Chromium Spill Site
Groundwater Sampling Results for Trichloroethene

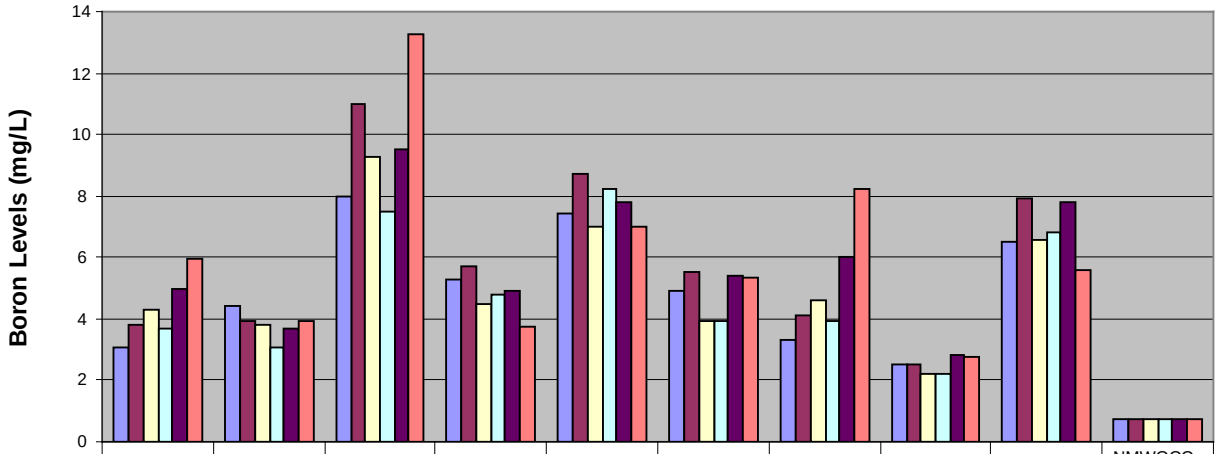


	HMW-11	HMW-13	HMW-36	HMW-37	HMW-38	HMW-39	HMW-40	HMW-41	HMW-43	NMWQCC Standard
Fall 1998	92	0	0	0	13	0	0	400	0	100
Spring 1999	60	0	0	0	13	110	0	440	0	100
Spring 2000	61	0	0	0	14	100	0	440	0	100
Fall 2000	66	0	0	0	16	100	0	410	0	100
Spring 2001	53	0	0	0	12.8	76.7	0	318	0	100
Fall 2001	51.5	0	0	0	14.1	63.5	0	269	1.13	100

Well Name

Note: 0 = Analyte was not detected above reporting limits or Analyte was not analyzed

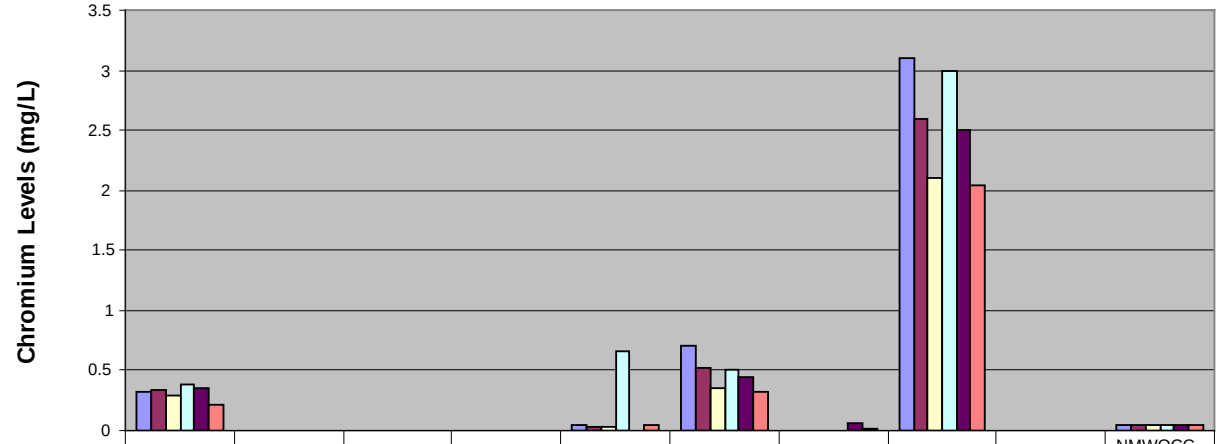
HELSTF Chromium Spill Site
Groundwater Sampling Results for Boron



	HMW-11	HMW-13	HMW-36	HMW-37	HMW-38	HMW-39	HMW-40	HMW-41	HMW-43	NMWQCC Standard
Fall 1998	3.1	4.4	8	5.3	7.4	4.9	3.3	2.5	6.5	0.75
Spring 1999	3.8	3.9	11	5.7	8.7	5.5	4.1	2.5	7.9	0.75
Spring 2000	4.3	3.8	9.3	4.5	7	3.9	4.6	2.2	6.6	0.75
Fall 2000	3.7	3.1	7.5	4.8	8.2	3.9	3.9	2.2	6.8	0.75
Spring 2001	5	3.7	9.5	4.9	7.8	5.4	6	2.8	7.8	0.75
Fall 2001	5.97	3.91	13.26	3.74	6.99	5.32	8.21	2.79	5.56	0.75

Well Name

HELSTF Chromium Spill Site
Groundwater Sampling Results for Chromium

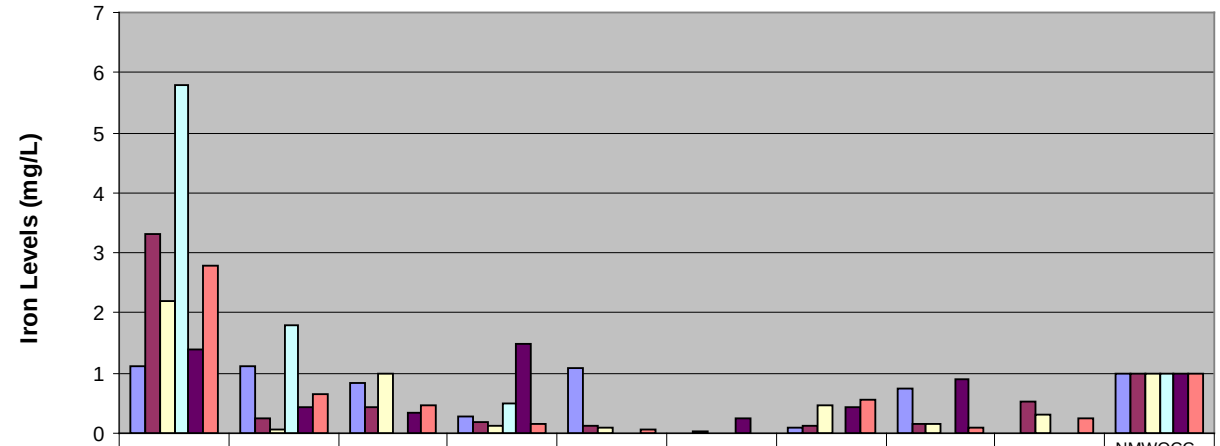


	HMW-11	HMW-13	HMW-36	HMW-37	HMW-38	HMW-39	HMW-40	HMW-41	HMW-43	NMWQCC Standard
Fall 1998	0.32	0	0	0	0.05	0.71	0	3.1	0	0.05
Spring 1999	0.34	0	0	0	0.03	0.52	0	2.6	0	0.05
Spring 2000	0.29	0	0	0	0.034	0.36	0	2.1	0	0.05
Fall 2000	0.38	0	0	0	0.66	0.51	0	3	0	0.05
Spring 2001	0.35	0	0	0	0	0.44	0.061	2.5	0	0.05
Fall 2001	0.217	0	0	0	0.0421	0.325	0.0128	2.04	0	0.05

Well Name

Note: 0 = Analyte was not detected above reporting limits or Analyte was not analyzed

HELSTF Chromium Spill Site
Groundwater Sampling Results for Iron

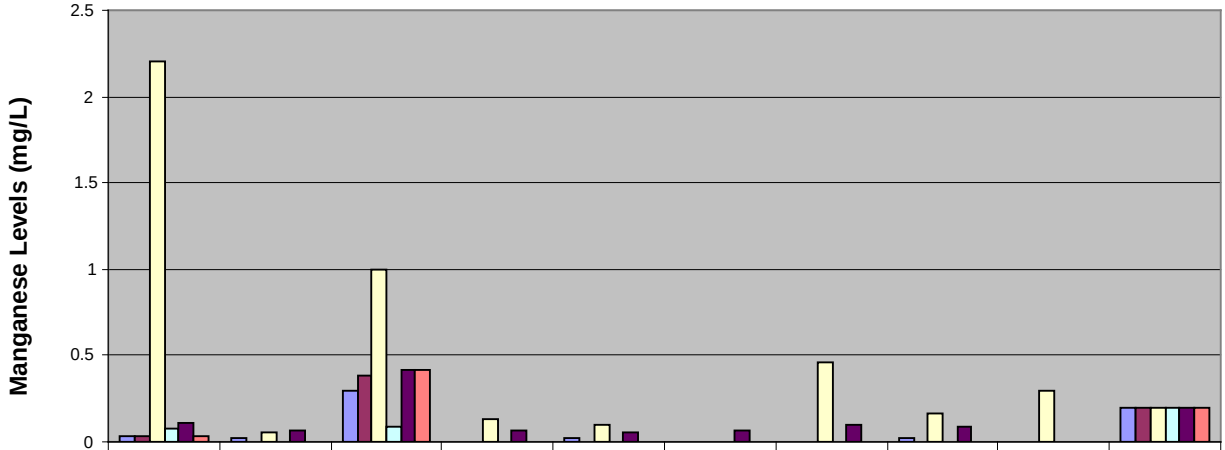


	HMW-11	HMW-13	HMW-36	HMW-37	HMW-38	HMW-39	HMW-40	HMW-41	HMW-43	NMWQCC Standard
Fall 1998	1.1	1.1	0.83	0.29	1.08	0	0.08	0.74	0	1
Spring 1999	3.3	0.24	0.43	0.18	0.11	0.03	0.12	0.16	0.53	1
Spring 2000	2.2	0.052	1	0.13	0.099	0	0.46	0.16	0.3	1
Fall 2000	5.8	1.8	0	0.5	0	0	0	0	0	1
Spring 2001	1.4	0.44	0.35	1.5	0	0.26	0.42	0.89	0	1
Fall 2001	2.79	0.665	0.476	0.17	0.0579	0	0.558	0.106	0.254	1

Well Name

Note: 0 = Analyte was not detected above reporting limits or Analyte was not analyzed

HELSTF Chromium Spill Site
Groundwater Sampling Results for Manganese

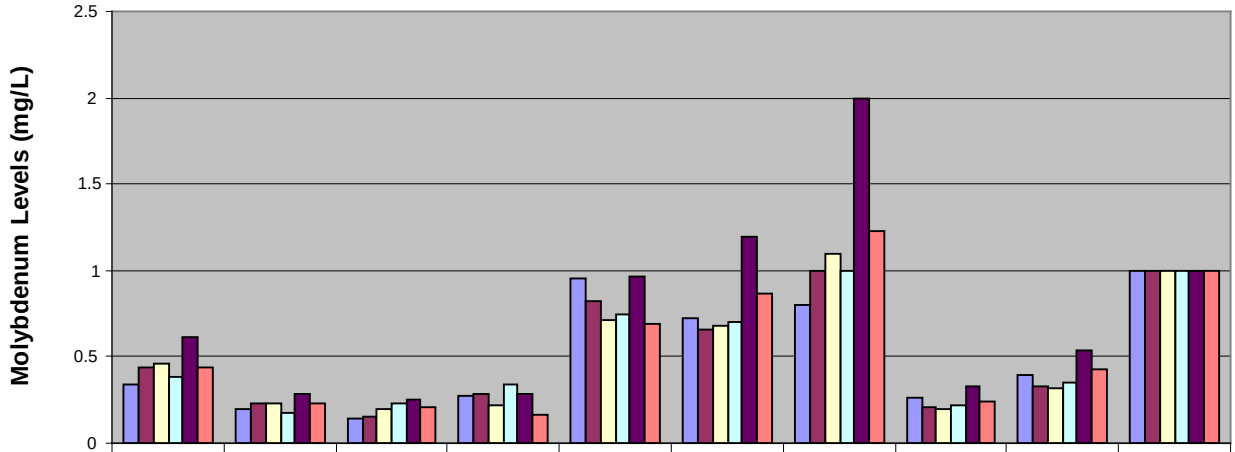


	HMW-11	HMW-13	HMW-36	HMW-37	HMW-38	HMW-39	HMW-40	HMW-41	HMW-43	NMWQCC Standard
Fall 1998	0.03	0.02	0.3	0	0.02	0	0	0.02	0	0.2
Spring 1999	0.03	0	0.38	0	0	0	0	0	0	0.2
Spring 2000	2.2	0.052	1	0.13	0.099	0	0.46	0.16	0.3	0.2
Fall 2000	0.08	0	0.09	0	0	0	0	0	0	0.2
Spring 2001	0.113	0.067	0.415	0.066	0.057	0.062	0.098	0.087	0	0.2
Fall 2001	0.038	0	0.413	0	0	0	0	0	0	0.2

Well Name

Note: 0 = Analyte was not detected above reporting limits or Analyte was not analyzed

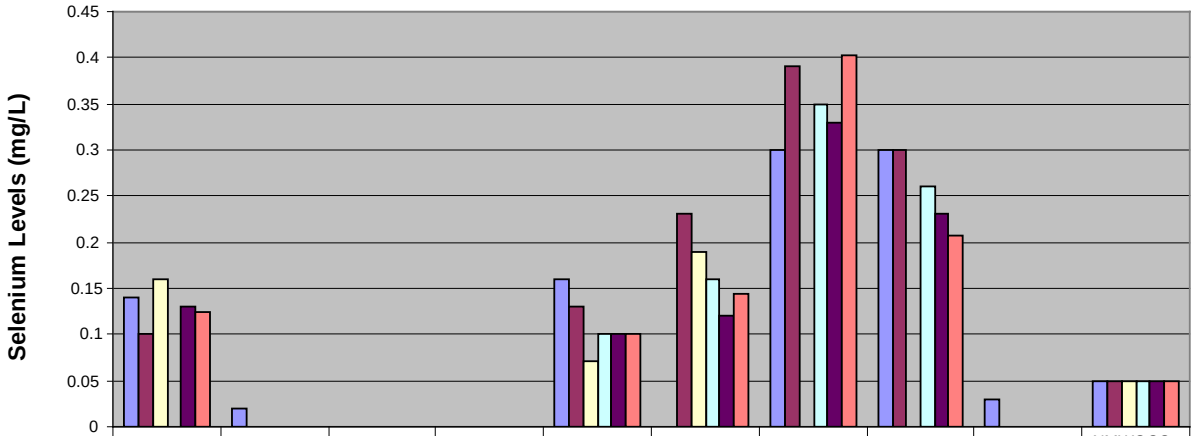
HELSTF Chromium Spill Site
Groundwater Sampling Results for Molybdenum



	HMW-11	HMW-13	HMW-36	HMW-37	HMW-38	HMW-39	HMW-40	HMW-41	HMW-43	NMWQCC Standard
Fall 1998	0.34	0.2	0.14	0.27	0.95	0.72	0.8	0.26	0.4	1
Spring 1999	0.44	0.23	0.15	0.28	0.82	0.66	1	0.21	0.33	1
Spring 2000	0.46	0.23	0.2	0.22	0.71	0.68	1.1	0.2	0.32	1
Fall 2000	0.38	0.18	0.23	0.34	0.75	0.7	1	0.22	0.35	1
Spring 2001	0.61	0.28	0.25	0.29	0.97	1.2	2	0.33	0.54	1
Fall 2001	0.442	0.227	0.211	0.163	0.696	0.864	1.23	0.242	0.423	1

Well Name

HELSTF Chromium Spill Site
Groundwater Sampling Results for Selenium

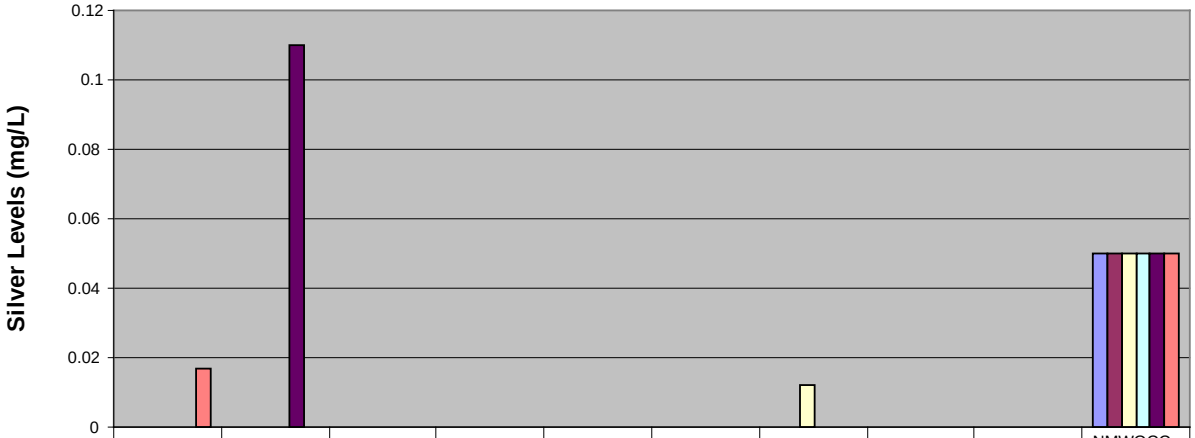


	HMW-11	HMW-13	HMW-36	HMW-37	HMW-38	HMW-39	HMW-40	HMW-41	HMW-43	NMWQCC Standard
Fall 1998	0.14	0.02	0	0	0.16	0	0.3	0.3	0.03	0.05
Spring 1999	0.1	0	0	0	0.13	0.23	0.39	0.3	0	0.05
Spring 2000	0.16	0	0	0	0.071	0.19	0	0	0	0.05
Fall 2000	0	0	0	0	0.1	0.16	0.35	0.26	0	0.05
Spring 2001	0.13	0	0	0	0.1	0.12	0.33	0.23	0	0.05
Fall 2001	0.125	0	0	0	0.101	0.145	0.403	0.207	0	0.05

Well Name

Note: 0 = Analyte was not detected above reporting limits or Analyte was not analyzed

HELSTF Chromium Spill Site
Groundwater Sampling Results for Silver

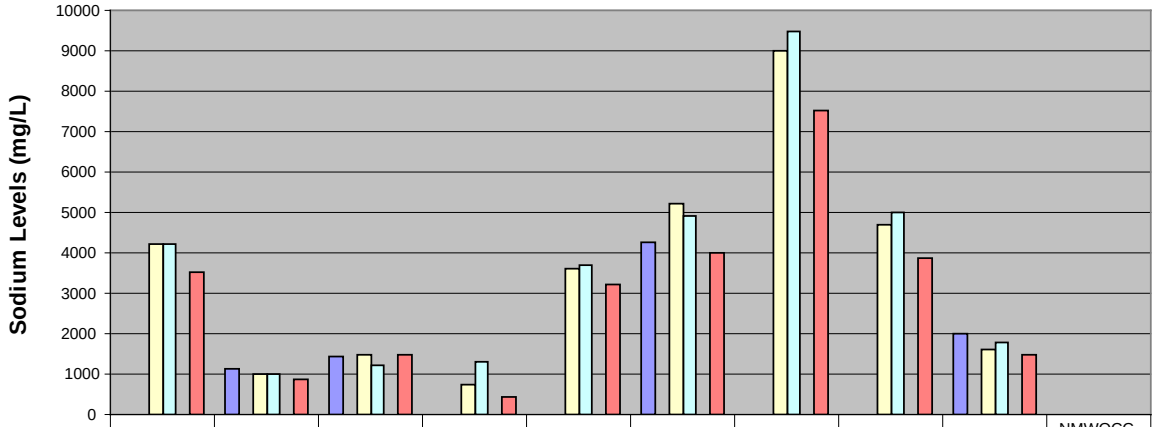


	HMW-11	HMW-13	HMW-36	HMW-37	HMW-38	HMW-39	HMW-40	HMW-41	HMW-43	NMWQCC Standard
Fall 1998	0	0	0	0	0	0	0	0	0	0.05
Spring 1999	0	0	0	0	0	0	0	0	0	0.05
Spring 2000	0	0	0	0	0	0	0.012	0	0	0.05
Fall 2000	0	0	0	0	0	0	0	0	0	0.05
Spring 2001	0	0.11	0	0	0	0	0	0	0	0.05
Fall 2001	0.0168	0	0	0	0	0	0	0	0	0.05

Well Name

Note: 0 = Analyte was not detected above reporting limits or Analyte was not analyzed

HELSTF Chromium Spill Site
Groundwater Sampling Results for Sodium

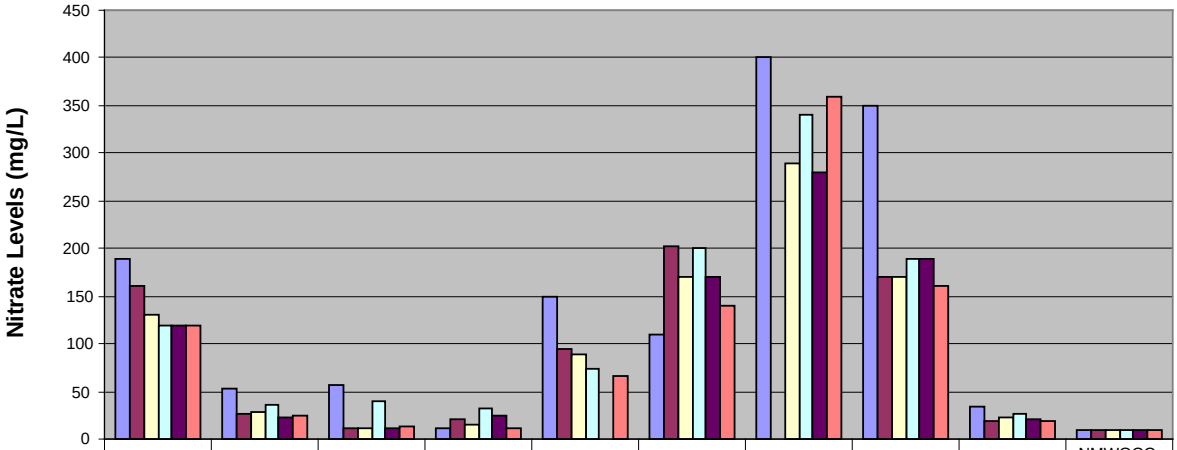


	HMW-11	HMW-13	HMW-36	HMW-37	HMW-38	HMW-39	HMW-40	HMW-41	HMW-43	NMWQCC Standard
Fall 1998	0	1111	1415	0	0	4260	0	0	1993	20
Spring 1999	0	0	0	0	0	0	0	0	0	20
Spring 2000	4200	1000	1500	730	3600	5200	9000	4700	1600	20
Fall 2000	4200	1000	1200	1300	3700	4900	9500	5000	1800	20
Spring 2001	0	0	0	0	0	0	0	0	0	20
Fall 2001	3,514	881	1460	443	3,214	3,990	7510	3,877	1,492	20

Well Name

Note: 0 = Analyte was not detected above reporting limits or Analyte was not analyzed

HELSTF Chromium Spill Site
Groundwater Sampling Results for Nitrate

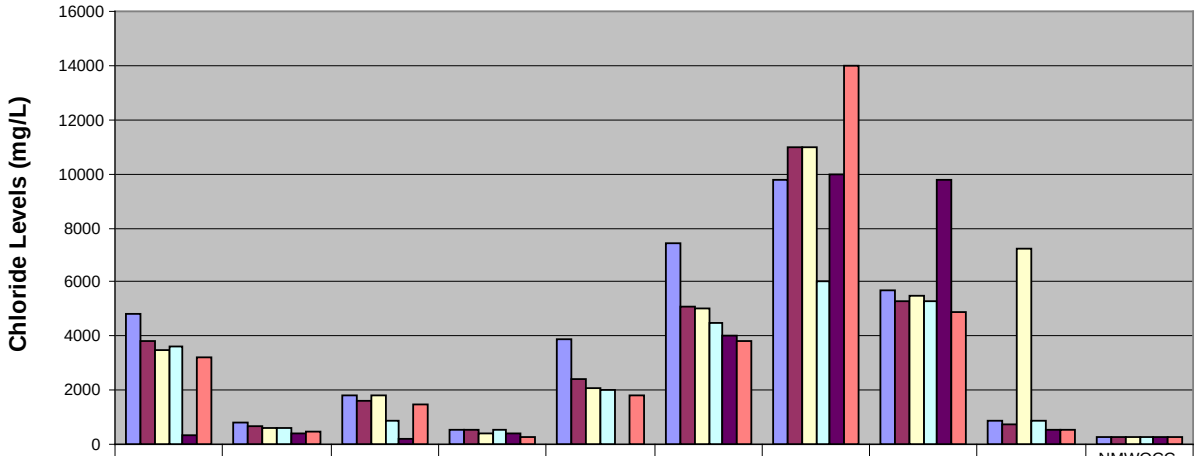


	HMW-11	HMW-13	HMW-36	HMW-37	HMW-38	HMW-39	HMW-40	HMW-41	HMW-43	NMWQCC Standard
Fall 1998	190	52	57	12	150	110	400	350	34	10
Spring 1999	160	27	11	21	94	203	0	170	18	10
Spring 2000	130	28	11	15	89	170	290	170	22	10
Fall 2000	120	36	39	33	73	200	340	190	27	10
Spring 2001	120	23	11	25	0	170	280	190	20	10
Fall 2001	120	25	13	12	67	140	360	160	19	10

Well Name

Note: Spring 2000 Reported as Nitrate + Nitrite.
0 = Analyte was not detected above reporting limits.

HELSTF Chromium Spill Site
Groundwater Sampling Results for Chloride

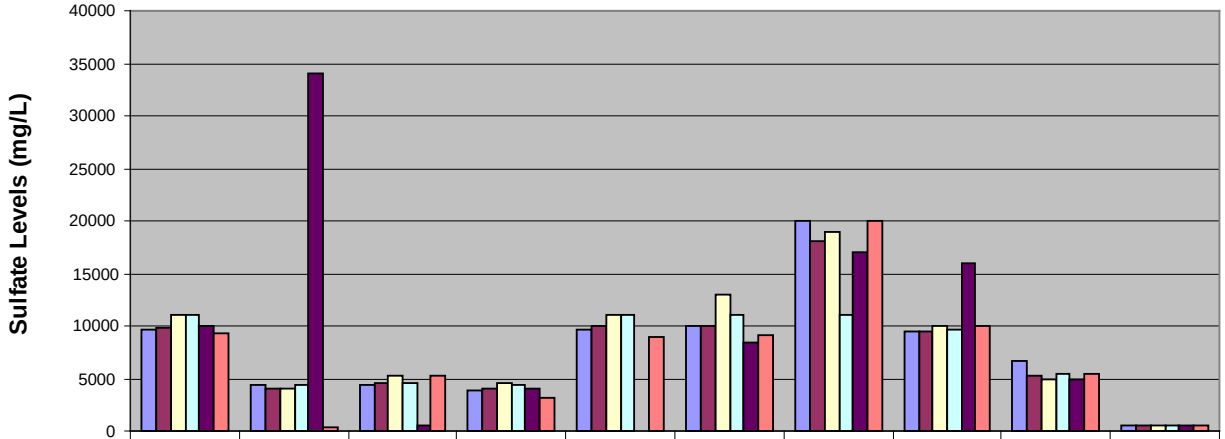


	HMW-11	HMW-13	HMW-36	HMW-37	HMW-38	HMW-39	HMW-40	HMW-41	HMW-43	NMWQCC Standard
Fall 1998	4800	810	1800	560	3900	7400	9800	5700	870	250
Spring 1999	3800	640	1600	510	2400	5100	11000	5300	720	250
Spring 2000	3500	570	1800	430	2100	5000	11000	5500	7202	250
Fall 2000	3600	590	890	560	2000	4500	6000	5300	850	250
Spring 2001	350	380	210	410	0	4,000	10,000	9,800	530	250
Fall 2001	3,200	490	1,500	290	1,800	3,800	14,000	4,900	550	250

Well Name

Note: 0 = Analyte was not detected above reporting limits.

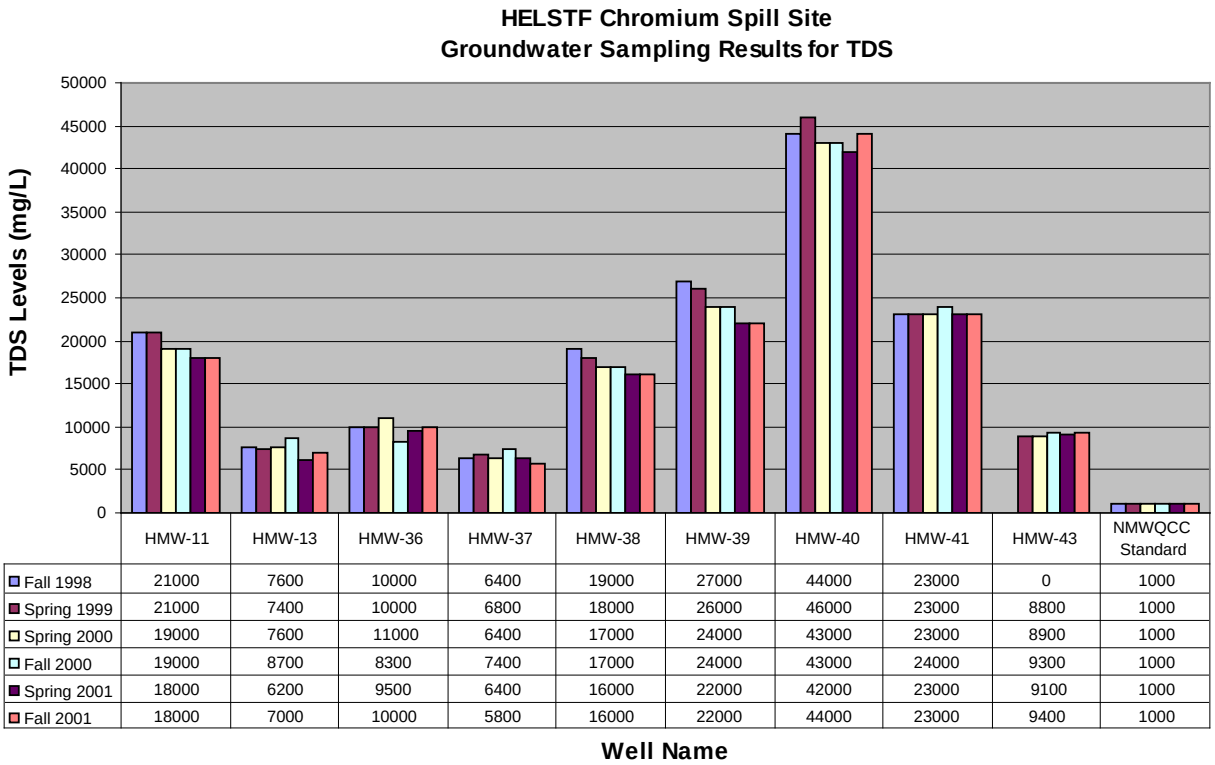
Chromium Spill Site
Groundwater Sampling Results for Sulfate



	HMW-11	HMW-13	HMW-36	HMW-37	HMW-38	HMW-39	HMW-40	HMW-41	HMW-43	NMWQCC Standard
Fall 1998	9600	4400	4400	3800	9700	10000	20000	9500	6700	600
Spring 1999	9800	4100	4500	4000	9930	10000	18000	9400	5200	600
Spring 2000	11000	4100	5300	4600	11000	13000	19000	10000	5000	600
Fall 2000	11000	4400	4500	4300	11000	11000	11000	9600	5400	600
Spring 2001	10000	34000	470	4000	0	8500	17000	16000	5000	600
Fall 2001	9300	400	5300	3200	9000	9200	20000	10000	5500	600

Well Name

Note: 0 = Analyte was not detected above reporting limits or Analyte was not analyzed



	HMW-11	HMW-13	HMW-36	HMW-37	HMW-38	HMW-39	HMW-40	HMW-41	HMW-43	NMWQCC Standard
Fall 1998	21000	7600	10000	6400	19000	27000	44000	23000	0	1000
Spring 1999	21000	7400	10000	6800	18000	26000	46000	23000	8800	1000
Spring 2000	19000	7600	11000	6400	17000	24000	43000	23000	8900	1000
Fall 2000	19000	8700	8300	7400	17000	24000	43000	24000	9300	1000
Spring 2001	18000	6200	9500	6400	16000	22000	42000	23000	9100	1000
Fall 2001	18000	7000	10000	5800	16000	22000	44000	23000	9400	1000

Note: 0 = Analyte was not detected above reporting limits or Analyte was not analyzed

APPENDIX B

SAMPLING PROCEDURES

SAMPLE PROCEDURES

Upon arrival at a well, field personnel record field observations and other pertinent information in a field logbook. Included in the log are the date, names of sampling team members, time of arrival, well identification number, air temperature, relative humidity, wind direction and approximate speed, and general weather condition (i.e. cloudy, rain or sun, etc.).

Following the entry of preliminary information to the log, the well cap is opened and the depth to water is determined. The depth to water is measured with an electric water level probe and recorded in the logbook. Total depth of the well is determined either by a direct measurement with the probe, or from field information sheets that are prepared from original well construction "as built" drawings before going into the field.

Well volume is calculated by subtracting the depth to water from the total depth of the well to obtain a value for the height (h) of the water column; the value "h" is then used in the formula for the volume (in gallons) of a cylinder ($V= d^2h[0.041]$: where d^2 is the diameter of the well casing in inches, squared, and the constant 0.041 is derived from π [22/7] and the conversion factor for volume in cubic feet to gallons[7.4805]). Prior to sample collection, three times the well volume of groundwater (V) is removed from the well. Purging the well in this manner is done to ensure that samples are representative of groundwater from the formation rather than condensation or stagnant water.

Water quality measurements are obtained with a calibrated, decontaminated Horiba water quality meter. The probe is inserted into the well in front of (below) the pump. During purging, the Horiba meter is continuously monitored and the data is recorded as water is drawn into the well. Data is recorded for time, volume, temperature, pH, conductivity and appearance and recorded in a bound field logbook.

Decontamination is performed on site with an Alconox/tap water solution and a tap water rinse. Any down-hole equipment (water level probe, pumps, tubing, probe meters and wires) are decontaminated with the Alconox/tap water solution and rinsed with tap water. All decontamination and purge water are stored on-site in sealed 55-gallon drums with labels indicating that disposal analysis is pending. Disposal of the waste generated during sampling is properly disposed of off site.

Each sample is collected in new, certified clean containers. Preservatives are added to the water when required by the analytical method, until the proper pH is reached; less than 2 when preserving with acids and greater than 13 when preserving with bases. Sample fractions to be analyzed for dissolved constituents are field filtered by pumping through a 0.45 micron disposable filter with a peristaltic pump and clean tygon tubing. Sample containers are labeled with sample name and number, sealed in a plastic bag, and packed in ice so as not to exceed a temperature of 4° C (39.2^{o} F) during transport to the laboratory. A chain-of-custody form is completed, sealed in a plastic bag, and placed inside the ice chest. Copies of the chain-of-custody forms for these sampling events are included in the Appendices. Sample coolers are sealed with chain-of-custody tape and submitted to the analytical laboratory via lab courier or overnight delivery service.

APPENDIX C

PURGE AND DECONTAMINATION WATER DISPOSAL

This information is not presently available. Upon receipt of disposal documentation manifests, MEVATEC will submit them under a separate cover.

APPENDIX D

CHEMICAL ANALYTICAL DATA
FALL 2001 SAMPLING EVENT

Mevatec

Corporation

700_A21 or 800_GG

Project ID: 700_A21 or 800_GG
Project Manager: Karen Costa

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Mercury Results and Quality Control

Dissolved Metals Results and Quality Control

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Volatile Organic Samples and Trip Blank Quality Control

Semi-Volatile Organic Results and Quality Control

Explosives Results and Quality Control

TOC Results and Quality Control

DRO Results and Quality Control

GRO Results and Quality Control

TDS Results and Quality Control

pH Results and Quality Control

Specific Conductance Results and Quality Control

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Dissolved Ion Results and Quality Control

Ammonia Results and Quality Control

TKN Results and Quality Control

Hexavalent Chromium Results and Quality Control

Continued...

...Continued

Subbed Analysis Results and Quality Control

- Ammonium Perchlorate
- Herbicides
- Pesticides

Chains of Custody

Mevatec 700_A21 or 800_GG Analyte List

SAMPLE SUMMARY

CLIENT: Mevatec Corporation
PROJECT ID: 700_A21 or 800_GG

TraceAnalysis ID	MEVATEC ID	Sample Date	Matrix	Temperature Upon Receipt
176140	0143-HMW43-0701	7/31/01	WATER	3 °C
176141	0143-HMW43-0701-TB	7/31/01	WATER	3 °C
176142	0143-HMW13-0701-QC	7/31/01	WATER	3 °C
176143	0143-HMW13-0701-QC-TB	7/31/01	WATER	3 °C
176144	0143-HMW13-0701	7/31/01	WATER	3 °C
176145	0143-HMW13-0701-TB	7/31/01	WATER	3 °C
176146	0143-HMW39-0701-QC	7/31/01	WATER	3 °C
176147	0143-HMW39-0701-QC-TB	7/31/01	WATER	3 °C
176148	0143-HMW39-0701	7/31/01	WATER	3 °C
176149	0143-HMW39-0701-TB	7/31/01	WATER	3 °C
176150	0143-HMW11-0701	7/31/01	WATER	3 °C
176151	0143-HMW11-0701-TB	7/31/01	WATER	3 °C
176212	0143-HMW38-0801	8/1/01	WATER	3 °C
176213	0143-HMW38-0801-TB	8/1/01	WATER	3 °C
176214	0143-HMW41-0801	8/1/01	WATER	3 °C
176215	0143-HMW41-0801-TB	8/1/01	WATER	3 °C
176216	0143-HMW37-0801	8/1/01	WATER	3 °C
176217	0143-HMW37-0801-TB	8/1/01	WATER	3 °C
176347	0143-HMW40-0801	8/2/01	WATER	4 °C
176348	0143-HMW40-0801-TB	8/2/01	WATER	4 °C
176349	0143-HMW36-0801	8/2/01	WATER	4 °C
176350	0143-HMW36-0801-TB	8/2/01	WATER	4 °C

Requested Analysis for 700_A21 or 800_GG

Dissolved Ions

Chloride
Fluoride
Bromide
Sulfate
Nitrate/Nitrite
Ammonium Perchlorate

Water Quality

pH
Specific Conductance
Residue, Dissolved (TDS)
Alkalinity

Nutrients

Amonnia (NH_3+NH_4)
Total Kjedahl Nitrogen (TKN)
Total Phosphorous

Total Metals

Aluminum	Chromium	Manganese	Strontium
Arsenic	Chromium $^{6+}$	Mercury	Tin
Barium	Cobalt	Molybdenum	Vanadium
Beryllium	Copper	Nickel	Zinc
Boron	Iron	Selenium	
Cadmium	Lead	Silicon	
Calcium	Magnesium	Silver	

Dissolved Metals

Aluminum	Chromium	Manganese	Strontium
Arsenic	Cobalt	Molybdenum	Tin
Barium	Copper	Nickel	Vanadium
Beryllium	Iron	Selenium	Zinc
Boron	Lead	Silicon	
Cadmium	Lithium	Silver	
Calcium	Magnesium		

Organics

Volatiles
SemiVolatiles
Explosive Residues
TOC
Petroleum Hydrocarbons (GRO & DRO)
Pesticides
Herbicides

SUBBED ANALYSIS SAMPLE ID INDEX (ATEL)

TraceAnalysis	Ammonium Perchlorate	Herbicides	Pesticides
176140	080301008	MEL01-09607	MEL01-09607
176142	080301007	MEL01-09606	MEL01-09606
176144	080301006	MEL01-09605	MEL01-09605
176146	080301005	MEL01-09604	MEL01-09604
176148	080301004	MEL01-09603	MEL01-09603
176150	080301003	MEL01-09602	MEL01-09602
176212	080801032	MEL01-09738	MEL01-09738
176214	080801033	MEL01-09739	MEL01-09739
176216	080801034	MEL01-09740	MEL01-09740
176347	080801031	MEL01-09872	MEL01-09872
176349	080801030	MEL01-09873	MEL01-09873

* The analyses for Hexavalent Chromium, Dissolved Ions, pH, Specific Conductance, TDS, and Alkalinity were performed in the TraceAnalysis laboratory in El Paso, Texas. The Sample ID Index is the same as that of TraceAnalysis in Lubbock, Texas.

Total Metals Results and Quality Control

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Karen Costa
Mevatec
P.O. Box 399 Bldg. 126
WSMR, NM 88002

Report Date: September 4, 2001

Order ID Number: A01080205

Project Number: 800 GG
Project Name: Ground Water Sampling at Helstf Chrome Site
Project Location: N/A

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
176140	0143-HMW43-0701	Water	7/31/01	15:02	8/1/01
176142	0143-HMW13-0701-QC	Water	7/31/01	14:37	8/1/01
176144	0143-HMW13-0701	Water	7/31/01	14:37	8/1/01
176146	0143-HMW39-0701-QC	Water	7/31/01	12:07	8/1/01
176148	0143-HMW39-0701	Water	7/31/01	12:07	8/1/01
176150	0143-HMW11-0701	Water	7/31/01	10:54	8/1/01
176212	0143-HMW38-0801	Water	8/1/01	1:17	8/2/01
176214	0145-HMW41-0801	Water	8/1/01	13:28	8/2/01
176216	0143-HMW37-0801	Water	8/1/01	1:17	8/2/01
176347	0143-HMW40-0801	Water	8/2/01	12:11	8/3/01
176349	0143-HMW36-0801	Water	8/2/01	11:17	8/3/01

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 15 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of TraceAnalysis, Inc.

Michael T. Alex
Dr. Blair Leftwich, Director

Analytical Report

Sample: 176140 - 0143-HMW43-0701

Analysis:	Total Metals	Analytical Method:	S 6010B	QC Batch:	QC13133	Date Analyzed:	8/8/01
Analyst:	LDB	Preparation Method:	E 3010A	Prep Batch:	PB11171	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Total Aluminum		<0.2	mg/L	1	0.2
Total Arsenic		<0.05	mg/L	1	0.05
Total Barium		<0.1	mg/L	1	0.1
Total Beryllium		<0.0025	mg/L	1	0.0025
Total Boron		5.56	mg/L	100	0.02
Total Cadmium		<0.025	mg/L	1	0.025
Total Chromium		<0.01	mg/L	1	0.01
Total Cobalt		<0.025	mg/L	1	0.025
Total Copper		<0.0125	mg/L	1	0.0125
Total Iron	1	0.254	mg/L	1	0.05
Total Lead		<0.01	mg/L	1	0.01
Total Manganese		<0.025	mg/L	1	0.025
Total Molybdenum		0.423	mg/L	1	0.05
Total Nickel		<0.025	mg/L	1	0.025
Total Phosphorous		0.281	mg/L	1	0.05
Total Selenium		<0.05	mg/L	1	0.05
Total Silica		16.8	mg/L	100	0.05
Total Silver		<0.0125	mg/L	1	0.0125
Total Strontium		3.73	mg/L	100	0.005
Total Tin		<0.025	mg/L	1	0.025
Total Vanadium		<0.025	mg/L	1	0.025
Total Zinc		<0.025	mg/L	1	0.025

Sample: 176142 - 0143-HMW13-0701-QC

Analysis:	Total Metals	Analytical Method:	S 6010B	QC Batch:	QC13133	Date Analyzed:	8/8/01
Analyst:	LDB	Preparation Method:	E 3010A	Prep Batch:	PB11171	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Total Aluminum		<0.2	mg/L	1	0.2
Total Arsenic		<0.05	mg/L	1	0.05
Total Barium		<0.1	mg/L	1	0.1
Total Beryllium		<0.0025	mg/L	1	0.0025
Total Boron		3.88	mg/L	100	0.02
Total Cadmium		<0.025	mg/L	1	0.025
Total Chromium		<0.01	mg/L	1	0.01
Total Cobalt		<0.025	mg/L	1	0.025
Total Copper		<0.0125	mg/L	1	0.0125
Total Iron	2	0.171	mg/L	1	0.05
Total Lead		0.0103	mg/L	1	0.01
Total Manganese		<0.025	mg/L	1	0.025
Total Molybdenum		0.224	mg/L	1	0.05
Total Nickel		<0.025	mg/L	1	0.025
Total Phosphorous		0.26	mg/L	1	0.05

Continued ...

[1]Possible laboratory contamination. Iron found in method blank.
[2]Possible laboratory contamination. Iron found in method blank.

... Continued Sample: 176142 Analysis: Total Metals

Param	Flag	Result	Units	Dilution	RDL
Total Selenium		<0.05	mg/L	1	0.05
Total Silica		9.49	mg/L	100	0.05
Total Silver		<0.0125	mg/L	1	0.0125
Total Strontium		7.04	mg/L	100	0.005
Total Tin		<0.025	mg/L	1	0.025
Total Vanadium		<0.025	mg/L	1	0.025
Total Zinc		0.0534	mg/L	1	0.025

Sample: 176144 - 0143-HMW13-0701

Analysis: Total Metals Analytical Method: S 6010B QC Batch: QC13133 Date Analyzed: 8/8/01
Analyst: LDB Preparation Method: E 3010A Prep Batch: PB11171 Date Prepared: 8/6/01

Param	Flag	Result	Units	Dilution	RDL
Total Aluminum		<0.2	mg/L	1	0.2
Total Arsenic		<0.05	mg/L	1	0.05
Total Barium		<0.1	mg/L	1	0.1
Total Beryllium		<0.0025	mg/L	1	0.0025
Total Boron		3.91	mg/L	100	0.02
Total Cadmium		<0.025	mg/L	1	0.025
Total Chromium		<0.01	mg/L	1	0.01
Total Cobalt		<0.025	mg/L	1	0.025
Total Copper		<0.0125	mg/L	1	0.0125
Total Iron	[3]	0.665	mg/L	1	0.05
Total Lead		<0.01	mg/L	1	0.01
Total Manganese		<0.025	mg/L	1	0.025
Total Molybdenum		0.227	mg/L	1	0.05
Total Nickel		<0.025	mg/L	1	0.025
Total Phosphorous		0.274	mg/L	1	0.05
Total Selenium		<0.05	mg/L	1	0.05
Total Silica		9.43	mg/L	100	0.05
Total Silver		<0.0125	mg/L	1	0.0125
Total Strontium		7.34	mg/L	100	0.005
Total Tin		<0.025	mg/L	1	0.025
Total Vanadium		<0.025	mg/L	1	0.025
Total Zinc		0.125	mg/L	1	0.025

Sample: 176146 - 0143-HMW39-0701-QC

Analysis: Total Metals Analytical Method: S 6010B QC Batch: QC13133 Date Analyzed: 8/8/01
Analyst: LDB Preparation Method: E 3010A Prep Batch: PB11171 Date Prepared: 8/6/01

Param	Flag	Result	Units	Dilution	RDL
Total Aluminum		<0.2	mg/L	1	0.2
Total Arsenic		<0.05	mg/L	1	0.05
Total Barium		<0.1	mg/L	1	0.1
Total Beryllium		<0.0025	mg/L	1	0.0025
Total Boron		5.09	mg/L	100	0.02
Total Cadmium		<0.025	mg/L	1	0.025
Total Chromium		0.328	mg/L	1	0.01
Total Cobalt		<0.025	mg/L	1	0.025

Continued ...

[3]Possible laboratory contamination. Iron found in method blank.

... *Continued* Sample: 176146 Analysis: Total Metals

Param	Flag	Result	Units	Dilution	RDL
Total Copper		<0.0125	mg/L	1	0.0125
Total Iron		<0.05	mg/L	1	0.05
Total Lead		<0.01	mg/L	1	0.01
Total Manganese		<0.025	mg/L	1	0.025
Total Molybdenum		0.876	mg/L	1	0.05
Total Nickel		0.0296	mg/L	1	0.025
Total Phosphorous		0.289	mg/L	1	0.05
Total Selenium		0.15	mg/L	1	0.05
Total Silica		15.7	mg/L	100	0.05
Total Silver		<0.0125	mg/L	1	0.0125
Total Strontium		7.68	mg/L	100	0.005
Total Tin		<0.025	mg/L	1	0.025
Total Vanadium		0.0251	mg/L	1	0.025
Total Zinc		<0.025	mg/L	1	0.025

Sample: 176148 - 0143-HMW39-0701

Analysis:	Total Metals	Analytical Method:	S 6010B	QC Batch:	QC13133	Date Analyzed:	8/8/01
Analyst:	LDB	Preparation Method:	E 3010A	Prep Batch:	PB11171	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Total Aluminum		<0.2	mg/L	1	0.2
Total Arsenic		<0.05	mg/L	1	0.05
Total Barium		<0.1	mg/L	1	0.1
Total Beryllium		<0.0025	mg/L	1	0.0025
Total Boron		5.32	mg/L	100	0.02
Total Cadmium		<0.025	mg/L	1	0.025
Total Chromium		0.325	mg/L	1	0.01
Total Cobalt		<0.025	mg/L	1	0.025
Total Copper		0.042	mg/L	1	0.0125
Total Iron		<0.05	mg/L	1	0.05
Total Lead		<0.01	mg/L	1	0.01
Total Manganese		<0.025	mg/L	1	0.025
Total Molybdenum		0.864	mg/L	1	0.05
Total Nickel		0.0279	mg/L	1	0.025
Total Phosphorous		0.276	mg/L	1	0.05
Total Selenium		0.145	mg/L	1	0.05
Total Silica		15.2	mg/L	100	0.05
Total Silver		<0.0125	mg/L	1	0.0125
Total Strontium		7.89	mg/L	100	0.005
Total Tin		<0.025	mg/L	1	0.025
Total Vanadium		0.0261	mg/L	1	0.025
Total Zinc		0.0395	mg/L	1	0.025

Sample: 176150 - 0143-HMW11-0701

Analysis:	Total Metals	Analytical Method:	S 6010B	QC Batch:	QC13133	Date Analyzed:	8/8/01
Analyst:	LDB	Preparation Method:	E 3010A	Prep Batch:	PB11171	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Total Aluminum		4.54	mg/L	1	0.2
Total Arsenic		<0.05	mg/L	1	0.05

Continued ...

... *Continued* Sample: 176150 Analysis: Total Metals

Param	Flag	Result	Units	Dilution	RDL
Total Barium		<0.1	mg/L	1	0.1
Total Beryllium		<0.0025	mg/L	1	0.0025
Total Boron		5.97	mg/L	100	0.02
Total Cadmium		<0.025	mg/L	1	0.025
Total Chromium		0.217	mg/L	1	0.01
Total Cobalt		<0.025	mg/L	1	0.025
Total Copper		<0.0125	mg/L	1	0.0125
Total Iron		2.79	mg/L	10	0.05
Total Lead		<0.01	mg/L	1	0.01
Total Manganese		0.038	mg/L	1	0.025
Total Molybdenum		0.442	mg/L	1	0.05
Total Nickel		<0.025	mg/L	1	0.025
Total Phosphorous		0.316	mg/L	1	0.05
Total Selenium		0.125	mg/L	1	0.05
Total Silica		21.8	mg/L	100	0.05
Total Silver		0.0168	mg/L	1	0.0125
Total Strontium		7.06	mg/L	100	0.005
Total Tin		<0.025	mg/L	1	0.025
Total Vanadium		0.0353	mg/L	1	0.025
Total Zinc		0.0274	mg/L	1	0.025

Sample: 176212 - 0143-HMW38-0801

Analysis:	Total Metals	Analytical Method:	S 6010B	QC Batch:	QC13133	Date Analyzed:	8/8/01
Analyst:	LDB	Preparation Method:	E 3010A	Prep Batch:	PB11171	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Total Aluminum		<0.2	mg/L	1	0.2
Total Arsenic		<0.05	mg/L	1	0.05
Total Barium		<0.1	mg/L	1	0.1
Total Beryllium		<0.0025	mg/L	1	0.0025
Total Boron		6.99	mg/L	100	0.02
Total Cadmium		<0.025	mg/L	1	0.025
Total Chromium		0.0421	mg/L	1	0.01
Total Cobalt		<0.025	mg/L	1	0.025
Total Copper		<0.0125	mg/L	1	0.0125
Total Iron	[4]	0.0579	mg/L	1	0.05
Total Lead		<0.01	mg/L	1	0.01
Total Manganese		<0.025	mg/L	1	0.025
Total Molybdenum		0.696	mg/L	1	0.05
Total Nickel		<0.025	mg/L	1	0.025
Total Phosphorous		0.29	mg/L	1	0.05
Total Selenium		0.101	mg/L	1	0.05
Total Silica		15.5	mg/L	100	0.05
Total Silver		<0.0125	mg/L	1	0.0125
Total Strontium		5.84	mg/L	100	0.005
Total Tin		<0.025	mg/L	1	0.025
Total Vanadium		0.028	mg/L	1	0.025
Total Zinc		<0.025	mg/L	1	0.025

[4] Possible laboratory contamination. Iron found in method blank.

Sample: 176214 - 0145-HMW41-0801

Analysis: Total Metals Analytical Method: S 6010B QC Batch: QC13133 Date Analyzed: 8/8/01
Analyst: LDB Preparation Method: E 3010A Prep Batch: PB11171 Date Prepared: 8/6/01

Param	Flag	Result	Units	Dilution	RDL
Total Aluminum		<0.2	mg/L	1	0.2
Total Arsenic		<0.05	mg/L	1	0.05
Total Barium		<0.1	mg/L	1	0.1
Total Beryllium		<0.0025	mg/L	1	0.0025
Total Boron		2.79	mg/L	100	0.02
Total Cadmium		<0.025	mg/L	1	0.025
Total Chromium		2.04	mg/L	1	0.01
Total Cobalt		<0.025	mg/L	1	0.025
Total Copper		<0.0125	mg/L	1	0.0125
Total Iron	5	0.106	mg/L	1	0.05
Total Lead		<0.01	mg/L	1	0.01
Total Manganese		<0.025	mg/L	1	0.025
Total Molybdenum		0.242	mg/L	1	0.05
Total Nickel		0.112	mg/L	1	0.025
Total Phosphorous		0.304	mg/L	1	0.05
Total Selenium		0.207	mg/L	1	0.05
Total Silica		16.1	mg/L	100	0.05
Total Silver		<0.0125	mg/L	1	0.0125
Total Strontium		8.68	mg/L	100	0.005
Total Tin		<0.025	mg/L	1	0.025
Total Vanadium		<0.025	mg/L	1	0.025
Total Zinc		<0.025	mg/L	1	0.025

Sample: 176216 - 0143-HMW37-0801

Analysis: Total Metals Analytical Method: S 6010B QC Batch: QC13133 Date Analyzed: 8/8/01
Analyst: LDB Preparation Method: E 3010A Prep Batch: PB11171 Date Prepared: 8/6/01

Param	Flag	Result	Units	Dilution	RDL
Total Aluminum		0.221	mg/L	1	0.2
Total Arsenic		<0.05	mg/L	1	0.05
Total Barium		<0.1	mg/L	1	0.1
Total Beryllium		<0.0025	mg/L	1	0.0025
Total Boron		3.74	mg/L	100	0.02
Total Cadmium		<0.025	mg/L	1	0.025
Total Chromium		<0.01	mg/L	1	0.01
Total Cobalt		<0.025	mg/L	1	0.025
Total Copper		<0.0125	mg/L	1	0.0125
Total Iron	6	0.17	mg/L	1	0.05
Total Lead		<0.01	mg/L	1	0.01
Total Manganese		<0.025	mg/L	1	0.025
Total Molybdenum		0.163	mg/L	1	0.05
Total Nickel		<0.025	mg/L	1	0.025
Total Phosphorous		0.274	mg/L	1	0.05
Total Selenium		<0.05	mg/L	1	0.05
Total Silica		10.8	mg/L	100	0.05
Total Silver		<0.0125	mg/L	1	0.0125
Total Strontium		7.37	mg/L	100	0.005

Continued ...

[5]Possible laboratory contamination. Iron found in method blank.
[6]Possible laboratory contamination. Iron found in method blank.

... *Continued* Sample: 176216 Analysis: Total Metals

Param	Flag	Result	Units	Dilution	RDL
Total Tin		<0.025	mg/L	1	0.025
Total Vanadium		<0.025	mg/L	1	0.025
Total Zinc		<0.025	mg/L	1	0.025

Sample: 176347 - 0143-HMW40-0801

Analysis: Total Metals Analytical Method: S 6010B QC Batch: QC13390 Date Analyzed: 8/15/01
Analyst: RR Preparation Method: E 3010A Prep Batch: PB11313 Date Prepared: 8/13/01

Param	Flag	Result	Units	Dilution	RDL
Total Aluminum		1.02	mg/L	1	0.2
Total Arsenic		<0.05	mg/L	1	0.05
Total Barium		<0.1	mg/L	1	0.1
Total Beryllium		<0.0025	mg/L	1	0.0025
Total Boron		8.21	mg/L	100	0.02
Total Cadmium		<0.025	mg/L	1	0.025
Total Chromium		0.0128	mg/L	1	0.01
Total Cobalt		<0.025	mg/L	1	0.025
Total Copper		<0.0125	mg/L	1	0.0125
Total Iron		0.558	mg/L	1	0.05
Total Lead		0.0153	mg/L	1	0.01
Total Manganese		<0.025	mg/L	1	0.025
Total Molybdenum		1.23	mg/L	1	0.05
Total Nickel		<0.025	mg/L	1	0.025
Total Phosphorous		0.0725	mg/L	1	0.05
Total Selenium		0.403	mg/L	1	0.05
Total Silica		9.76	mg/L	100	0.05
Total Silver		<0.0125	mg/L	1	0.0125
Total Strontium		9.84	mg/L	100	0.005
Total Tin		<0.025	mg/L	1	0.025
Total Vanadium		<0.025	mg/L	1	0.025
Total Zinc		0.0286	mg/L	1	0.025

Sample: 176349 - 0143-HMW36-0801

Analysis: Total Metals Analytical Method: S 6010B QC Batch: QC13390 Date Analyzed: 8/15/01
Analyst: RR Preparation Method: E 3010A Prep Batch: PB11313 Date Prepared: 8/13/01

Param	Flag	Result	Units	Dilution	RDL
Total Aluminum		0.259	mg/L	1	0.2
Total Arsenic		<0.05	mg/L	1	0.05
Total Barium		<0.1	mg/L	1	0.1
Total Beryllium		<0.0025	mg/L	1	0.0025
Total Boron		13.26	mg/L	100	0.02
Total Cadmium		<0.025	mg/L	1	0.025
Total Chromium		<0.01	mg/L	1	0.01
Total Cobalt		<0.025	mg/L	1	0.025
Total Copper		0.017	mg/L	1	0.0125
Total Iron		0.476	mg/L	1	0.05
Total Lead		0.0176	mg/L	1	0.01
Total Manganese		0.413	mg/L	1	0.025
Total Molybdenum		0.211	mg/L	1	0.05

Continued ...

... *Continued* Sample: 176349 Analysis: Total Metals

Param	Flag	Result	Units	Dilution	RDL
Total Nickel		<0.025	mg/L	1	0.025
Total Phosphorous		0.053	mg/L	1	0.05
Total Selenium		<0.05	mg/L	1	0.05
Total Silica		7.6	mg/L	100	0.05
Total Silver		<0.0125	mg/L	1	0.0125
Total Strontium		9.58	mg/L	100	0.005
Total Tin		<0.025	mg/L	1	0.025
Total Vanadium		0.029	mg/L	1	0.025
Total Zinc		<0.025	mg/L	1	0.025

Quality Control Report
Method Blank

Method Blank QCBatch: QC13133

Param	Flag	Results	Units	Reporting Limit
Total Aluminum		<0.2	mg/L	0.2
Total Arsenic		<0.05	mg/L	0.05
Total Barium		<0.1	mg/L	0.1
Total Beryllium		<0.0025	mg/L	0.0025
Total Boron		<0.02	mg/L	0.02
Total Cadmium		<0.025	mg/L	0.025
Total Chromium		<0.01	mg/L	0.01
Total Cobalt		<0.025	mg/L	0.025
Total Copper		<0.0125	mg/L	0.0125
Total Iron	[7]	0.0709	mg/L	0.05
Total Lead		<0.01	mg/L	0.01
Total Manganese		<0.025	mg/L	0.0225
Total Molybdenum		<0.05	mg/L	0.05
Total Nickel		<0.025	mg/L	0.025
Total Phosphorous	[8]	0.279	mg/L	0.05
Total Selenium		<0.05	mg/L	0.05
Total Silica		<0.05	mg/L	0.05
Total Silver		<0.0125	mg/L	0.0125
Total Strontium		<0.005	mg/L	0.005
Total Tin		<0.025	mg/L	0.025
Total Vanadium		<0.025	mg/L	0.025
Total Zinc		<0.025	mg/L	0.025

Method Blank QCBatch: QC13390

Param	Flag	Results	Units	Reporting Limit
Total Aluminum		<0.2	mg/L	0.2
Total Arsenic		<0.05	mg/L	0.05
Total Barium		<0.1	mg/L	0.1
Total Beryllium		<0.0025	mg/L	0.0025
Total Boron		<0.02	mg/L	0.02
Total Cadmium		<0.025	mg/L	0.025
Total Chromium		<0.01	mg/L	0.01
Total Cobalt		<0.025	mg/L	0.025
Total Copper		<0.0125	mg/L	0.0125
Total Iron		<0.05	mg/L	0.05
Total Lead		<0.01	mg/L	0.01
Total Manganese		<0.025	mg/L	0.0225
Total Molybdenum		<0.05	mg/L	0.05
Total Nickel		<0.025	mg/L	0.025
Total Phosphorous		<0.05	mg/L	0.05
Total Selenium		<0.05	mg/L	0.05

Continued ...

[7] Iron contamination found in method blank.
[8] Phosphorous contamination found in method blank.

... Continued

Param	Flag	Results	Units	Reporting Limit
Total Silica		<0.05	mg/L	0.05
Total Silver		<0.0125	mg/L	0.0125
Total Strontium		<0.005	mg/L	0.005
Total Tin		<0.025	mg/L	0.025
Total Vanadium		<0.025	mg/L	0.025
Total Zinc		<0.025	mg/L	0.025

Quality Control Report
Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes QCBatch: QC13133

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Aluminum	0.885	0.838	mg/L	1	1	<0.2	88	5	75 - 125	20
Total Arsenic	0.494	0.498	mg/L	1	0.5	<0.05	98	0	75 - 125	20
Total Barium	0.987	0.973	mg/L	1	1	<0.1	98	1	75 - 125	20
Total Beryllium	0.0245	0.0241	mg/L	1	0.025	<0.0025	98	1	75 - 125	20
Total Boron	0.0551	0.054	mg/L	1	0.05	<0.02	86	2	75 - 125	20
Total Cadmium	0.245	0.244	mg/L	1	0.25	<0.025	98	0	75 - 125	20
Total Chromium	0.1	0.0991	mg/L	1	0.1	<0.01	100	0	75 - 125	20
Total Cobalt	0.248	0.249	mg/L	1	0.25	<0.025	99	0	75 - 125	20
Total Copper	0.127	0.124	mg/L	1	0.125	<0.0125	101	2	75 - 125	20
Total Iron	0.491	0.526	mg/L	1	0.5	0.0709	84	7	75 - 125	20
Total Lead	0.495	0.492	mg/L	1	0.5	<0.01	99	0	75 - 125	20
Total Manganese	0.247	0.244	mg/L	1	0.25	<0.025	98	1	75 - 125	20
Total Molybdenum	0.515	0.517	mg/L	1	0.5	<0.05	103	0	75 - 125	20
Total Nickel	0.241	0.241	mg/L	1	0.25	<0.025	96	0	75 - 125	20
Total Phosphorous	0.776	0.772	mg/L	1	0.5	0.279	99	0	75 - 125	20
Total Selenium	0.436	0.429	mg/L	1	0.5	<0.05	87	1	75 - 125	20
Total Silica	0.487	0.489	mg/L	1	0.5	<0.05	97	0	75 - 125	20
Total Silver	0.122	0.12	mg/L	1	0.125	<0.0125	97	1	75 - 125	20
Total Strontium	0.0496	0.0488	mg/L	1	0.05	<0.005	99	1	75 - 125	20
Total Tin	0.338	0.335	mg/L	1	0.3	<0.025	112	1	75 - 125	20
Total Vanadium	0.248	0.244	mg/L	1	0.25	<0.025	99	1	75 - 125	20
Total Zinc	0.265	0.264	mg/L	1	0.25	<0.025	90	0	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spikes QCBatch: QC13390

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Aluminum	1.22	1.24	mg/L	1	1	<0.2	103	1	75 - 125	20
Total Arsenic	0.512	0.491	mg/L	1	0.5	<0.05	102	4	75 - 125	20
Total Barium	1	0.991	mg/L	1	1	<0.1	100	0	75 - 125	20
Total Beryllium	0.0244	0.0241	mg/L	1	0.025	<0.0025	97	1	75 - 125	20
Total Boron	0.0475	0.0466	mg/L	1	0.05	<0.02	95	1	75 - 125	20
Total Cadmium	0.252	0.248	mg/L	1	0.25	<0.025	100	1	75 - 125	20
Total Chromium	0.098	0.0976	mg/L	1	0.1	<0.01	98	0	75 - 125	20
Total Cobalt	0.245	0.247	mg/L	1	0.25	<0.025	98	0	75 - 125	20

Continued ...

... Continued

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Copper	0.128	0.128	mg/L	1	0.125	<0.0125	103	0	75 - 125	20
Total Iron	0.504	0.491	mg/L	1	0.5	<0.05	100	2	75 - 125	20
Total Lead	0.498	0.497	mg/L	1	0.5	<0.01	99	0	75 - 125	20
Total Manganese	0.249	0.246	mg/L	1	0.25	<0.025	99	1	75 - 125	20
Total Molybdenum	0.502	0.506	mg/L	1	0.5	<0.05	100	0	75 - 125	20
Total Nickel	0.237	0.238	mg/L	1	0.25	<0.025	94	0	75 - 125	20
Total Phosphorous	0.473	0.483	mg/L	1	0.5	<0.05	94	2	75 - 125	20
Total Selenium	0.464	0.462	mg/L	1	0.5	<0.05	92	0	75 - 125	20
Total Silica	0.501	0.5	mg/L	1	0.5	<0.05	100	0	75 - 125	20
Total Silver	0.121	0.119	mg/L	1	0.125	<0.0125	96	1	75 - 125	20
Total Strontium	0.0537	0.0532	mg/L	1	0.05	<0.005	107	0	75 - 125	20
Total Tin	0.324	0.323	mg/L	1	0.3	<0.025	108	0	75 - 125	20
Total Vanadium	0.248	0.244	mg/L	1	0.25	<0.025	99	1	75 - 125	20
Total Zinc	0.25	0.25	mg/L	1	0.25	<0.025	100	0	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Quality Control Report
Matrix Spikes and Duplicate Spikes

Matrix Spikes QCBatch: QC13133

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Aluminum	[9] 5.13	[10] 5.13	mg/L	1	1	4.54	59	0	75 - 125	20
Total Arsenic	0.495	0.477	mg/L	1	0.5	<0.05	99	3	75 - 125	20
Total Barium	0.955	0.937	mg/L	1	1	<0.1	95	1	75 - 125	20
Total Beryllium	0.0201	0.0199	mg/L	1	0.025	<0.0025	80	1	75 - 125	20
Total Boron	[11] 5.58	[12] 4.89	mg/L	100	0.05	5.97	-779	13	75 - 125	20
Total Cadmium	0.21	0.209	mg/L	1	0.25	<0.025	84	0	75 - 125	20
Total Chromium	0.303	0.297	mg/L	1	0.1	0.217	86	7	75 - 125	20
Total Cobalt	0.236	0.231	mg/L	1	0.25	<0.025	94	2	75 - 125	20
Total Copper	0.15	0.149	mg/L	1	0.125	<0.0125	120	0	75 - 125	20
Total Iron	[13] 2.94	[14] 3.04	mg/L	10	0.5	2.79	30	3	75 - 125	20
Total Lead	0.455	0.454	mg/L	1	0.5	<0.01	91	0	75 - 125	20
Total Manganese	0.263	0.257	mg/L	1	0.25	0.038	90	2	75 - 125	20
Total Molybdenum	0.89	0.876	mg/L	1	0.5	0.442	89	3	75 - 125	20
Total Nickel	0.262	0.259	mg/L	1	0.25	<0.025	104	1	75 - 125	20
Total Phosphorous	0.761	0.747	mg/L	1	0.5	0.316	89	3	75 - 125	20
Total Selenium	0.561	0.546	mg/L	1	0.5	0.125	87	3	75 - 125	20
Total Silica	[15] 20.1	[16] 16.7	mg/L	100	0.5	21.8	-340	18	75 - 125	20
Total Silver	0.126	0.124	mg/L	1	0.125	0.0168	87	1	75 - 125	20
Total Strontium	[17] 6.77	[18] 6.22	mg/L	100	0.05	7.06	-580	8	75 - 125	20

Continued ...

[9]Marix spike recovery invalid due to required dilution. LCS demonstrates process under control.
[10]Matrix spike recovery invalid due to required dilution. LCS demonstrates process under control
[11]Matrix spike recovery invalid due to required dilution. LCS demonstrates process under control.
[12]Matrix spike recovery invalid due to required dilution. LCS demonstrates process under control.
[13]Matrix spike recovery invalid due to required dilution. LCS demonstrates process under control.
[14]Matrix spike recovery invalid due to required dilution. LCS demonstrates process under control.
[15]Matrix spike recovery invalid due ti required dilution. LCS demonstrates process under control.
[16]Matrix spike recovery invalid due to required dilution. LCS demonstrates process under control.
[17]Matrix spike recovery invalid due to required dilution. LCS demonstrates process under control
[18]Matrix spike recovery invalid due required dilution. LCS demonstrates process under control.

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Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Tin	[19] 0.177	[20] 0.165	mg/L	1	0.3	<0.025	59	7	75 - 125	20
Total Vanadium	0.256	0.251	mg/L	1	0.25	0.0353	88	2	75 - 125	20
Total Zinc	0.232	0.229	mg/L	1	0.25	0.0274	81	1	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spikes QCBatch: QC13390

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Aluminum	1.36	1.43	mg/L	1	1	0.259	110	6	75 - 125	20
Total Arsenic	0.478	0.476	mg/L	1	0.5	<0.05	95	0	75 - 125	20
Total Barium	0.979	0.939	mg/L	1	1	<0.1	97	4	75 - 125	20
Total Beryllium	0.0207	0.0199	mg/L	1	0.025	<0.0025	82	3	75 - 125	20
Total Boron	[21] 7.79	[22] 7.4	mg/L	100	0.05	13.26	-240	0	75 - 125	20
Total Cadmium	0.219	0.209	mg/L	1	0.25	<0.025	87	4	75 - 125	20
Total Chromium	0.0871	0.0835	mg/L	1	0.1	<0.01	87	4	75 - 125	20
Total Cobalt	0.237	0.226	mg/L	1	0.25	<0.025	94	4	75 - 125	20
Total Copper	0.154	0.149	mg/L	1	0.125	0.017	109	3	75 - 125	20
Total Iron	0.953	0.905	mg/L	1	0.5	0.476	95	10	75 - 125	20
Total Lead	0.47	0.449	mg/L	1	0.5	0.0176	90	4	75 - 125	20
Total Manganese	0.638	0.608	mg/L	1	0.25	0.413	90	14	75 - 125	20
Total Molybdenum	0.655	0.63	mg/L	1	0.5	0.211	88	5	75 - 125	20
Total Nickel	0.243	0.242	mg/L	1	0.25	<0.025	97	0	75 - 125	20
Total Phosphorous	0.466	0.457	mg/L	1	0.5	0.053	82	2	75 - 125	20
Total Selenium	0.474	0.455	mg/L	1	0.5	<0.05	94	4	75 - 125	20
Total Silica	[23] 12	[24] 13.6	mg/L	100	0.5	7.6	880	12	75 - 125	20
Total Silver	0.122	0.116	mg/L	1	0.125	<0.0125	97	5	75 - 125	20
Total Strontium	[25] 9.09	[26] 9	mg/L	100	0.05	9.58	-980	0	75 - 125	20
Total Tin	0.165	0.167	mg/L	1	0.3	<0.025	55	1	75 - 125	20
Total Vanadium	0.253	0.243	mg/L	1	0.25	0.029	89	4	75 - 125	20
Total Zinc	0.228	0.216	mg/L	1	0.25	<0.025	91	5	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Quality Control Report
Continuing Calibration Verification Standards

CCV (1) QCBatch: QC13133

[19] Matrix spike recovery invalid due to matrix difficulties. LCS demonstrates process under control.
[20] Matrix spike recovery invalid due matrix difficulties. LCS demonstrates process under control.
[21] Matrix spike recovery invalid due to matrix difficulties. LCS demonstrates process under control.
[22] Matrix spike recovery invalid due to matrix difficulties. LCS demonstrates process under control.
[23] Matrix spike recovery invalid due to matrix difficulties. LCS demonstrates process under control.
[24] Matrix spike recovery invalid due to matrix difficulties. LCS demonstrates process under control.
[25] Matrix spike recovery invalid due to matrix difficulties. LCS demonstrates process under control.
[26] Matrix spike recovery invalid due to matrix difficulties. LCS demonstrates process under control.

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/L	2	1.96	98	90 - 110	8/8/01
Total Arsenic		mg/L	1	0.998	99	90 - 110	8/8/01
Total Barium		mg/L	2	1.97	98	90 - 110	8/8/01
Total Beryllium		mg/L	0.05	0.049	98	90 - 110	8/8/01
Total Boron		mg/L	0.10	0.106	94	90 - 110	8/8/01
Total Cadmium		mg/L	0.50	0.494	98	90 - 110	8/8/01
Total Chromium		mg/L	0.20	0.206	103	90 - 110	8/8/01
Total Cobalt		mg/L	0.50	0.497	99	90 - 110	8/8/01
Total Copper		mg/L	0.25	0.243	97	90 - 110	8/8/01
Total Iron		mg/L	1	1	92	90 - 110	8/8/01
Total Lead		mg/L	1	0.995	99	90 - 110	8/8/01
Total Manganese		mg/L	0.50	0.491	98	90 - 110	8/8/01
Total Molybdenum		mg/L	1	1	100	90 - 110	8/8/01
Total Nickel		mg/L	0.50	0.5	100	90 - 110	8/8/01
Total Phosphorous		mg/L	1	1	100	90 - 110	8/8/01
Total Selenium		mg/L	1	1.01	101	90 - 110	8/8/01
Total Silica		mg/L	1	0.991	99	90 - 110	8/8/01
Total Silver		mg/L	0.25	0.246	98	90 - 110	8/8/01
Total Strontium		mg/L	0.10	0.099	99	90 - 110	8/8/01
Total Tin		mg/L	0.50	0.516	103	90 - 110	8/8/01
Total Vanadium		mg/L	0.50	0.49	98	90 - 110	8/8/01
Total Zinc		mg/L	0.50	0.502	92	90 - 110	8/8/01

ICV (1) QCBatch: QC13133

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/L	2	1.95	97	90 - 110	8/8/01
Total Arsenic		mg/L	1	0.999	99	90 - 110	8/8/01
Total Barium		mg/L	2	1.94	97	90 - 110	8/8/01
Total Beryllium		mg/L	0.05	0.0485	97	90 - 110	8/8/01
Total Boron		mg/L	0.10	0.106	94	90 - 110	8/8/01
Total Cadmium		mg/L	0.50	0.488	97	90 - 110	8/8/01
Total Chromium		mg/L	0.20	0.201	100	90 - 110	8/8/01
Total Cobalt		mg/L	0.50	0.499	99	90 - 110	8/8/01
Total Copper		mg/L	0.25	0.24	96	90 - 110	8/8/01
Total Iron		mg/L	1	0.978	90	90 - 110	8/8/01
Total Lead		mg/L	1	1	100	90 - 110	8/8/01
Total Manganese		mg/L	0.50	0.486	97	90 - 110	8/8/01
Total Molybdenum		mg/L	1	0.996	99	90 - 110	8/8/01
Total Nickel		mg/L	0.50	0.496	99	90 - 110	8/8/01
Total Phosphorous		mg/L	1	1.01	101	90 - 110	8/8/01
Total Selenium		mg/L	1	1	100	90 - 110	8/8/01
Total Silica		mg/L	1	0.969	96	90 - 110	8/8/01
Total Silver		mg/L	0.25	0.243	97	90 - 110	8/8/01
Total Strontium		mg/L	0.10	0.0968	96	90 - 110	8/8/01
Total Tin		mg/L	0.50	0.513	102	90 - 110	8/8/01
Total Vanadium		mg/L	0.50	0.487	97	90 - 110	8/8/01
Total Zinc		mg/L	0.50	0.501	92	90 - 110	8/8/01

CCV (1) QCBatch: QC13390

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/L	2	1.98	99	90 - 110	8/15/01
Total Arsenic		mg/L	1	0.992	99	90 - 110	8/15/01
Total Barium		mg/L	2	1.98	99	90 - 110	8/15/01
Total Beryllium		mg/L	0.05	0.0494	98	90 - 110	8/15/01
Total Boron		mg/L	0.10	0.102	102	90 - 110	8/15/01
Total Cadmium		mg/L	0.50	0.501	100	90 - 110	8/15/01
Total Chromium		mg/L	0.20	0.202	101	90 - 110	8/15/01
Total Cobalt		mg/L	0.50	0.495	99	90 - 110	8/15/01
Total Copper		mg/L	0.25	0.245	98	90 - 110	8/15/01
Total Iron		mg/L	1	1	100	90 - 110	8/15/01
Total Lead		mg/L	1	0.993	99	90 - 110	8/15/01
Total Manganese		mg/L	0.50	0.491	98	90 - 110	8/15/01
Total Molybdenum		mg/L	1	1.01	101	90 - 110	8/15/01
Total Nickel		mg/L	0.50	0.489	97	90 - 110	8/15/01
Total Phosphorous		mg/L	1	0.997	99	90 - 110	8/15/01
Total Selenium		mg/L	1	1.01	101	90 - 110	8/15/01
Total Silica		mg/L	1	0.998	99	90 - 110	8/15/01
Total Silver		mg/L	0.25	0.244	97	90 - 110	8/15/01
Total Strontium		mg/L	0.10	0.0984	98	90 - 110	8/15/01
Total Tin		mg/L	0.50	0.521	104	90 - 110	8/15/01
Total Vanadium		mg/L	0.50	0.489	97	90 - 110	8/15/01
Total Zinc		mg/L	0.50	0.509	101	90 - 110	8/15/01

ICV (1) QCBatch: QC13390

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/L	2	1.91	95	90 - 110	8/15/01
Total Arsenic		mg/L	1	0.958	95	90 - 110	8/15/01
Total Barium		mg/L	2	1.92	96	90 - 110	8/15/01
Total Beryllium		mg/L	0.05	0.0479	95	90 - 110	8/15/01
Total Boron		mg/L	0.10	0.0992	99	90 - 110	8/15/01
Total Cadmium		mg/L	0.50	0.479	95	90 - 110	8/15/01
Total Chromium		mg/L	0.20	0.193	96	90 - 110	8/15/01
Total Cobalt		mg/L	0.50	0.481	96	90 - 110	8/15/01
Total Copper		mg/L	0.25	0.24	96	90 - 110	8/15/01
Total Iron		mg/L	1	0.957	95	90 - 110	8/15/01
Total Lead		mg/L	1	0.963	96	90 - 110	8/15/01
Total Manganese		mg/L	0.50	0.479	95	90 - 110	8/15/01
Total Molybdenum		mg/L	1	0.975	97	90 - 110	8/15/01
Total Nickel		mg/L	0.50	0.482	96	90 - 110	8/15/01
Total Phosphorous		mg/L	1	0.964	96	90 - 110	8/15/01
Total Selenium		mg/L	1	0.989	98	90 - 110	8/15/01
Total Silica		mg/L	1	0.98	98	90 - 110	8/15/01
Total Silver		mg/L	0.25	0.24	96	90 - 110	8/15/01
Total Strontium		mg/L	0.10	0.0956	95	90 - 110	8/15/01
Total Tin		mg/L	0.50	0.514	102	90 - 110	8/15/01
Total Vanadium		mg/L	0.50	0.479	95	90 - 110	8/15/01

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Zinc		mg/L	0.50	0.484	96	90 - 110	8/15/01

Dissolved Salts Results and Quality Control

TRACEANALYSIS, INC.

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Analytical and Quality Control Report

Karen Costa
Mevatec
P.O. Box 399 Bldg. 126
WSMR, NM 88002

Report Date: August 30, 2001

Order ID Number: A01080205

Project Number: 800 GG
Project Name: Ground Water Sampling at Helstf Chrome Site
Project Location: N/A

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
176140	0143-HMW43-0701	Water	7/31/01	15:02	8/1/01
176142	0143-HMW13-0701-QC	Water	7/31/01	14:37	8/1/01
176144	0143-HMW13-0701	Water	7/31/01	14:37	8/1/01
176146	0143-HMW39-0701-QC	Water	7/31/01	12:07	8/1/01
176148	0143-HMW39-0701	Water	7/31/01	12:07	8/1/01
176150	0143-HMW11-0701	Water	7/31/01	10:54	8/1/01
176212	0143-HMW38-0801	Water	8/1/01	1:17	8/2/01
176214	0145-HMW41-0801	Water	8/1/01	13:28	8/2/01
176216	0143-HMW37-0801	Water	8/1/01	1:17	8/2/01
176347	0143-HMW40-0801	Water	8/2/01	12:11	8/3/01
176349	0143-HMW36-0801	Water	8/2/01	11:17	8/3/01

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 7 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of TraceAnalysis, Inc.

Michael T. Abel
Dr. Blair Leftwich, Director

Analytical Report

Sample: 176140 - 0143-HMW43-0701

Analysis:	Salts	Analytical Method:	S 6010B	QC Batch:	QC13657	Date Analyzed:	8/7/01
Analyst:	LDB	Preparation Method:	E 3005 A	Prep Batch:	PB11689	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		341	mg/L	10	0.50
Dissolved Magnesium		294	mg/L	10	0.50
Dissolved Potassium		80.2	mg/L	10	0.50
Dissolved Sodium		1,492	mg/L	100	0.50

Sample: 176142 - 0143-HMW13-0701-QC

Analysis:	Salts	Analytical Method:	S 6010B	QC Batch:	QC13657	Date Analyzed:	8/7/01
Analyst:	LDB	Preparation Method:	E 3005 A	Prep Batch:	PB11689	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		371	mg/L	10	0.50
Dissolved Magnesium		297	mg/L	10	0.50
Dissolved Potassium		78.3	mg/L	10	0.50
Dissolved Sodium		1,005	mg/L	100	0.50

Sample: 176144 - 0143-HMW13-0701

Analysis:	Salts	Analytical Method:	S 6010B	QC Batch:	QC13657	Date Analyzed:	8/7/01
Analyst:	LDB	Preparation Method:	E 3005 A	Prep Batch:	PB11689	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		386	mg/L	10	0.50
Dissolved Magnesium		317	mg/L	10	0.50
Dissolved Potassium		78.3	mg/L	10	0.50
Dissolved Sodium		881	mg/L	100	0.50

Sample: 176146 - 0143-HMW39-0701-QC

Analysis:	Salts	Analytical Method:	S 6010B	QC Batch:	QC13657	Date Analyzed:	8/7/01
Analyst:	LDB	Preparation Method:	E 3005 A	Prep Batch:	PB11689	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		446	mg/L	100	0.50
Dissolved Magnesium		1,032	mg/L	100	0.50
Dissolved Potassium		164	mg/L	10	0.50
Dissolved Sodium		3,900	mg/L	100	0.50

Sample: 176148 - 0143-HMW39-0701

Analysis:	Salts	Analytical Method:	S 6010B	QC Batch:	QC13657	Date Analyzed:	8/7/01
Analyst:	LDB	Preparation Method:	E 3005 A	Prep Batch:	PB11689	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		471	mg/L	100	0.50
Dissolved Magnesium		1,081	mg/L	100	0.50
Dissolved Potassium		171	mg/L	10	0.50
Dissolved Sodium		3,990	mg/L	100	0.50

Sample: 176150 - 0143-HMW11-0701

Analysis:	Salts	Analytical Method:	S 6010B	QC Batch:	QC13657	Date Analyzed:	8/7/01
Analyst:	LDB	Preparation Method:	E 3005 A	Prep Batch:	PB11689	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		391	mg/L	100	0.50
Dissolved Magnesium		912	mg/L	100	0.50
Dissolved Potassium		107	mg/L	100	0.50
Dissolved Sodium		3,514	mg/L	100	0.50

Sample: 176212 - 0143-HMW38-0801

Analysis:	Salts	Analytical Method:	S 6010B	QC Batch:	QC13657	Date Analyzed:	8/7/01
Analyst:	LDB	Preparation Method:	E 3005 A	Prep Batch:	PB11689	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		305	mg/L	10	0.50
Dissolved Magnesium		753	mg/L	100	0.50
Dissolved Potassium		131	mg/L	10	0.50
Dissolved Sodium		3,214	mg/L	100	0.50

Sample: 176214 - 0145-HMW41-0801

Analysis:	Salts	Analytical Method:	S 6010B	QC Batch:	QC13657	Date Analyzed:	8/7/01
Analyst:	LDB	Preparation Method:	E 3005 A	Prep Batch:	PB11689	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		476	mg/L	100	0.50
Dissolved Magnesium		1,115	mg/L	100	0.50
Dissolved Potassium		141	mg/L	10	0.50
Dissolved Sodium		3,877	mg/L	100	0.50

Sample: 176216 - 0143-HMW37-0801

Analysis:	Salts	Analytical Method:	S 6010B	QC Batch:	QC13657	Date Analyzed:	8/7/01
Analyst:	LDB	Preparation Method:	E 3005 A	Prep Batch:	PB11689	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		397	mg/L	10	0.50
Dissolved Magnesium		312	mg/L	10	0.50
Dissolved Potassium		69.3	mg/L	10	0.50
Dissolved Sodium		443	mg/L	10	0.50

Sample: 176347 - 0143-HMW40-0801

Analysis:	Salts	Analytical Method:	S 6010B	QC Batch:	QC13569	Date Analyzed:	8/23/01
Analyst:	RR	Preparation Method:	E 3005 A	Prep Batch:	PB11330	Date Prepared:	8/13/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		405	mg/L	10	0.50
Dissolved Magnesium		2350	mg/L	100	0.50
Dissolved Potassium		295	mg/L	10	0.50
Dissolved Sodium		7510	mg/L	100	0.50

Sample: 176349 - 0143-HMW36-0801

Analysis:	Salts	Analytical Method:	S 6010B	QC Batch:	QC13569	Date Analyzed:	8/23/01
Analyst:	RR	Preparation Method:	E 3005 A	Prep Batch:	PB11330	Date Prepared:	8/13/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		541	mg/L	100	0.50
Dissolved Magnesium		646	mg/L	100	0.50
Dissolved Potassium		143	mg/L	10	0.50
Dissolved Sodium		1460	mg/L	100	0.50

Quality Control Report
Method Blank

Method Blank QCBatch: QC13569

Param	Flag	Results	Units	Reporting Limit
Dissolved Calcium		<0.500	mg/L	0.50
Dissolved Magnesium		<0.500	mg/L	0.50
Dissolved Potassium		<0.500	mg/L	0.50
Dissolved Sodium		<0.500	mg/L	0.50

Method Blank QCBatch: QC13657

Param	Flag	Results	Units	Reporting Limit
Dissolved Calcium		<0.5	mg/L	0.50
Dissolved Magnesium		<0.5	mg/L	0.50
Dissolved Potassium		<0.5	mg/L	0.50
Dissolved Sodium		<0.5	mg/L	0.50

Quality Control Report
Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes QCBatch: QC13569

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Dissolved Calcium	116	121	mg/L	4.48	100	<0.500	116	4	75 - 125	20
Dissolved Magnesium	110	114	mg/L	4.48	100	<0.500	110	3	75 - 125	20
Dissolved Potassium	110	114	mg/L	4.48	100	<0.500	110	3	75 - 125	20
Dissolved Sodium	104	109	mg/L	4.48	100	<0.500	104	4	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spikes QCBatch: QC13657

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Dissolved Calcium	89.4	86.1	mg/L	1	100	<0.5	89	3	75 - 125	20
Dissolved Magnesium	85.5	81.1	mg/L	1	100	<0.5	85	5	75 - 125	20
Dissolved Potassium	89.7	87.3	mg/L	1	100	<0.5	89	2	75 - 125	20
Dissolved Sodium	92.6	87.7	mg/L	1	100	<0.5	92	5	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Quality Control Report
Matrix Spikes and Duplicate Spikes

Matrix Spikes QCBatch: QC13569

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Dissolved Calcium	563	577	mg/L	100	100	444	119	2	75 - 125	20
Dissolved Magnesium	542	556	mg/L	100	100	442	100	2	75 - 125	20
Dissolved Potassium	[1] 199	185	mg/L	10	100	61.2	137	7	75 - 125	20
Dissolved Sodium	1670	[2] 1700	mg/L	100	100	1560	110	2	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spikes QCBatch: QC13657

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Dissolved Calcium	480	467	mg/L	1	100	391	89	3	75 - 125	20
Dissolved Magnesium	1027	[3] 939	mg/L	1	100	912	115	8	75 - 125	20
Dissolved Potassium	187	220	mg/L	1	100	107	80	16	75 - 125	20
Dissolved Sodium	[4] 3410	[5] 3560	mg/L	1	100	3,514	-104	4	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Quality Control Report
Continuing Calibration Verification Standards

CCV (1) QCBatch: QC13569

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25	25.7	102	90 - 110	8/23/01
Dissolved Magnesium		mg/L	25	25.3	101	90 - 110	8/23/01
Dissolved Potassium		mg/L	25	24.5	98	90 - 110	8/23/01
Dissolved Sodium		mg/L	25	24.8	99	90 - 110	8/23/01

ICV (1) QCBatch: QC13569

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25	24.9	99	95 - 105	8/23/01
Dissolved Magnesium		mg/L	25	24.9	99	95 - 105	8/23/01
Dissolved Potassium		mg/L	25	25.2	100	95 - 105	8/23/01
Dissolved Sodium		mg/L	25	25.2	100	95 - 105	8/23/01

[1]Spike out of standard range due to matrix difficulties. LCS/LCSD show that process is in control.
[2]Spike out of standard range due to matrix difficulties. LCS/LCSD show that process is in control.
[3]Spike out of standard range due to matrix difficulties. LCS/LCSD show that process is in control.
[4]Spike out of standard range due to matrix difficulties. LCS/LCSD show that process is in control.
[5]Spike out of standard range due to matrix difficulties. LCS/LCSD show that process is in control.

CCV (1) QCBatch: QC13657

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25	25	100	90 - 110	8/7/01
Dissolved Magnesium		mg/L	25	24.3	97	90 - 110	8/7/01
Dissolved Potassium		mg/L	25	23.7	94	90 - 110	8/7/01
Dissolved Sodium		mg/L	25	24.3	97	90 - 110	8/7/01

ICV (1) QCBatch: QC13657

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25	24.7	98	95 - 105	8/7/01
Dissolved Magnesium		mg/L	25	23.9	95	95 - 105	8/7/01
Dissolved Potassium		mg/L	25	24	96	95 - 105	8/7/01
Dissolved Sodium		mg/L	25	25	100	95 - 105	8/7/01

Mercury Results and Quality Control

TRACEANALYSIS, INC.

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E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Karen Costa
Mevatec
P.O. Box 399 Bldg. 126
WSMR, NM 88002

Report Date: August 30, 2001

Order ID Number: A01080205

Project Number: 800 GG
Project Name: Ground Water Sampling at Helstf Chrome Site
Project Location: N/A

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
176140	0143-HMW43-0701	Water	7/31/01	15:02	8/1/01
176142	0143-HMW13-0701-QC	Water	7/31/01	14:37	8/1/01
176144	0143-HMW13-0701	Water	7/31/01	14:37	8/1/01
176146	0143-HMW39-0701-QC	Water	7/31/01	12:07	8/1/01
176148	0143-HMW39-0701	Water	7/31/01	12:07	8/1/01
176150	0143-HMW11-0701	Water	7/31/01	10:54	8/1/01
176212	0143-HMW38-0801	Water	8/1/01	1:17	8/2/01
176214	0145-HMW41-0801	Water	8/1/01	13:28	8/2/01
176216	0143-HMW37-0801	Water	8/1/01	1:17	8/2/01
176347	0143-HMW40-0801	Water	8/2/01	12:11	8/3/01
176349	0143-HMW36-0801	Water	8/2/01	11:17	8/3/01

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 5 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of TraceAnalysis, Inc.

Michael T. Abel
Dr. Blair Leftwich, Director

Analytical Report

Sample: 176140 - 0143-HMW43-0701

Analysis:	Hg, Total	Analytical Method:	S 7470A	QC Batch:	QC13244	Date Analyzed:	8/8/01
Analyst:	BC	Preparation Method:	N/A	Prep Batch:	PB11220	Date Prepared:	8/7/01

Param	Flag	Result	Units	Dilution	RDL
Total Mercury		<0.0002	mg/L	1	0.0002

Sample: 176142 - 0143-HMW13-0701-QC

Analysis:	Hg, Total	Analytical Method:	S 7470A	QC Batch:	QC13244	Date Analyzed:	8/8/01
Analyst:	BC	Preparation Method:	N/A	Prep Batch:	PB11220	Date Prepared:	8/7/01

Param	Flag	Result	Units	Dilution	RDL
Total Mercury		<0.0002	mg/L	1	0.0002

Sample: 176144 - 0143-HMW13-0701

Analysis:	Hg, Total	Analytical Method:	S 7470A	QC Batch:	QC13244	Date Analyzed:	8/8/01
Analyst:	BC	Preparation Method:	N/A	Prep Batch:	PB11220	Date Prepared:	8/7/01

Param	Flag	Result	Units	Dilution	RDL
Total Mercury		<0.0002	mg/L	1	0.0002

Sample: 176146 - 0143-HMW39-0701-QC

Analysis:	Hg, Total	Analytical Method:	S 7470A	QC Batch:	QC13244	Date Analyzed:	8/8/01
Analyst:	BC	Preparation Method:	N/A	Prep Batch:	PB11220	Date Prepared:	8/7/01

Param	Flag	Result	Units	Dilution	RDL
Total Mercury		<0.0002	mg/L	1	0.0002

Sample: 176148 - 0143-HMW39-0701

Analysis:	Hg, Total	Analytical Method:	S 7470A	QC Batch:	QC13244	Date Analyzed:	8/8/01
Analyst:	BC	Preparation Method:	N/A	Prep Batch:	PB11220	Date Prepared:	8/7/01

Param	Flag	Result	Units	Dilution	RDL
Total Mercury		<0.0002	mg/L	1	0.0002

Sample: 176150 - 0143-HMW11-0701

Analysis:	Hg, Total	Analytical Method:	S 7470A	QC Batch:	QC13244	Date Analyzed:	8/8/01
Analyst:	BC	Preparation Method:	N/A	Prep Batch:	PB11220	Date Prepared:	8/7/01

Param	Flag	Result	Units	Dilution	RDL
Total Mercury		<0.0002	mg/L	1	0.0002

Sample: 176212 - 0143-HMW38-0801

Analysis:	Hg, Total	Analytical Method:	S 7470A	QC Batch:	QC13244	Date Analyzed:	8/8/01
Analyst:	BC	Preparation Method:	N/A	Prep Batch:	PB11220	Date Prepared:	8/7/01

Param	Flag	Result	Units	Dilution	RDL
Total Mercury		<0.0002	mg/L	1	0.0002

Sample: 176214 - 0145-HMW41-0801

Analysis:	Hg, Total	Analytical Method:	S 7470A	QC Batch:	QC13244	Date Analyzed:	8/8/01
Analyst:	BC	Preparation Method:	N/A	Prep Batch:	PB11220	Date Prepared:	8/7/01

Param	Flag	Result	Units	Dilution	RDL
Total Mercury		<0.0002	mg/L	1	0.0002

Sample: 176216 - 0143-HMW37-0801

Analysis:	Hg, Total	Analytical Method:	S 7470A	QC Batch:	QC13244	Date Analyzed:	8/8/01
Analyst:	BC	Preparation Method:	N/A	Prep Batch:	PB11220	Date Prepared:	8/7/01

Param	Flag	Result	Units	Dilution	RDL
Total Mercury		0.00032	mg/L	1	0.0002

Sample: 176347 - 0143-HMW40-0801

Analysis:	Hg, Total	Analytical Method:	S 7470A	QC Batch:	QC13246	Date Analyzed:	8/8/01
Analyst:	BC	Preparation Method:	N/A	Prep Batch:	PB11221	Date Prepared:	8/8/01

Param	Flag	Result	Units	Dilution	RDL
Total Mercury		<0.0002	mg/L	1	0.0002

Sample: 176349 - 0143-HMW36-0801

Analysis:	Hg, Total	Analytical Method:	S 7470A	QC Batch:	QC13246	Date Analyzed:	8/8/01
Analyst:	BC	Preparation Method:	N/A	Prep Batch:	PB11221	Date Prepared:	8/8/01

Param	Flag	Result	Units	Dilution	RDL
Total Mercury		<0.0002	mg/L	1	0.0002

Quality Control Report
Method Blank

Method Blank QCBatch: QC13244

Param	Flag	Results	Units	Reporting Limit
Total Mercury		<0.0002	mg/L	0.0002

Method Blank QCBatch: QC13246

Param	Flag	Results	Units	Reporting Limit
Total Mercury		<0.0002	mg/L	0.0002

Quality Control Report
Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes QCBatch: QC13244

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Mercury	0.00115	0.00115	mg/L	1	0.001	<0.0002	115	0	84 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spikes QCBatch: QC13246

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Mercury	0.00120	0.00116	mg/L	1	0.001	<0.0002	120	3	84 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Quality Control Report
Matrix Spikes and Duplicate Spikes

Matrix Spikes QCBatch: QC13244

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Mercury	0.00114	0.00112	mg/L	1	0.001	<0.0002	114	1	84 - 127	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spikes QCBatch: QC13246

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Mercury	0.00088	0.00088	mg/L	1	0.001	<0.0002	88	0	84 - 127	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Quality Control Report
Continuing Calibration Verification Standards

CCV (1) QCBatch: QC13244

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.001	0.00109	109	80 - 120	8/8/01

ICV (1) QCBatch: QC13244

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.001	0.00108	108	80 - 120	8/8/01

CCV (1) QCBatch: QC13246

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.001	0.00109	109	80 - 120	8/8/01

ICV (1) QCBatch: QC13246

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.001	0.00108	108	80 - 120	8/8/01

Dissolved Metals Results and Quality Control

TRACEANALYSIS, INC.

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Analytical and Quality Control Report

Karen Costa
Mevatec
P.O. Box 399 Bldg. 126
WSMR, NM 88002

Report Date: September 4, 2001

Order ID Number: A01080205

Project Number: 800 GG
Project Name: Ground Water Sampling at Helstf Chrome Site
Project Location: N/A

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
176140	0143-HMW43-0701	Water	7/31/01	15:02	8/1/01
176142	0143-HMW13-0701-QC	Water	7/31/01	14:37	8/1/01
176144	0143-HMW13-0701	Water	7/31/01	14:37	8/1/01
176146	0143-HMW39-0701-QC	Water	7/31/01	12:07	8/1/01
176148	0143-HMW39-0701	Water	7/31/01	12:07	8/1/01
176150	0143-HMW11-0701	Water	7/31/01	10:54	8/1/01
176212	0143-HMW38-0801	Water	8/1/01	1:17	8/2/01
176214	0145-HMW41-0801	Water	8/1/01	13:28	8/2/01
176216	0143-HMW37-0801	Water	8/1/01	1:17	8/2/01
176347	0143-HMW40-0801	Water	8/2/01	12:11	8/3/01
176349	0143-HMW36-0801	Water	8/2/01	11:17	8/3/01

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

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Dr. Blair Leftwich, Director

Analytical Report

Sample: 176140 - 0143-HMW43-0701

Analysis: Dissolved Metals | Analytical Method: S 6010B | QC Batch: QC13655 | Date Analyzed: 8/28/01
Analyst: BP | Preparation Method: E 3005A | Prep Batch: PB11340 | Date Prepared: 8/13/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Aluminum		<0.550	mg/L	1.10	0.50
Dissolved Arsenic		<0.011	mg/L	1.10	0.01
Dissolved Barium		<0.011	mg/L	1.10	0.01
Dissolved Beryllium		<0.011	mg/L	1.10	0.01
Dissolved Boron		7.97	mg/L	110	0.01
Dissolved Cadmium		<0.0022	mg/L	1.10	0.002
Dissolved Chromium		<0.055	mg/L	1.10	0.05
Dissolved Cobalt		<0.011	mg/L	1.10	0.01
Dissolved Copper		<0.011	mg/L	1.10	0.01
Dissolved Iron		<0.022	mg/L	1.10	0.02
Dissolved Lead		<0.011	mg/L	1.10	0.01
Dissolved Lithium		0.356	mg/L	1.10	0.01
Dissolved Manganese		<0.0011	mg/L	1.10	0.001
Dissolved Molybdenum		0.412	mg/L	1.10	0.002
Dissolved Nickel		<0.011	mg/L	1.10	0.01
Dissolved Selenium		<0.011	mg/L	1.10	0.01
Dissolved Silica		14.55	mg/L	110	0.05
Dissolved Silver		<0.0011	mg/L	1.10	0.001
Dissolved Strontium		4.81	mg/L	110	0.01
Dissolved Tin		<0.011	mg/L	1.10	0.01
Dissolved Vanadium		<0.011	mg/L	1.10	0.01
Dissolved Zinc		<0.110	mg/L	1.10	0.10

Sample: 176142 - 0143-HMW13-0701-QC

Analysis: Dissolved Metals | Analytical Method: S 6010B | QC Batch: QC13655 | Date Analyzed: 8/28/01
Analyst: BP | Preparation Method: E 3005A | Prep Batch: PB11340 | Date Prepared: 8/13/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Aluminum		<0.550	mg/L	1.10	0.50
Dissolved Arsenic		<0.011	mg/L	1.10	0.01
Dissolved Barium		<0.011	mg/L	1.10	0.01
Dissolved Beryllium		<0.011	mg/L	1.10	0.01
Dissolved Boron		5.22	mg/L	110	0.01
Dissolved Cadmium		<0.0022	mg/L	1.10	0.002
Dissolved Chromium		<0.055	mg/L	1.10	0.05
Dissolved Cobalt		<0.011	mg/L	1.10	0.01
Dissolved Copper		<0.011	mg/L	1.10	0.01
Dissolved Iron		<0.022	mg/L	1.10	0.02
Dissolved Lead		<0.011	mg/L	1.10	0.01
Dissolved Lithium		0.344	mg/L	1.10	0.01
Dissolved Manganese		<0.0011	mg/L	1.10	0.001
Dissolved Molybdenum		0.218	mg/L	1.10	0.002
Dissolved Nickel		<0.011	mg/L	1.10	0.01
Dissolved Selenium		<0.011	mg/L	1.10	0.01
Dissolved Silica		10.89	mg/L	110	0.05
Dissolved Silver		<0.0011	mg/L	1.10	0.001

Continued . . .

... Continued Sample: 176142 Analysis: Dissolved Metals

Param	Flag	Result	Units	Dilution	RDL
Dissolved Strontium		7.42	mg/L	110	0.01
Dissolved Tin		<0.011	mg/L	1.10	0.01
Dissolved Vanadium		<0.011	mg/L	1.10	0.01
Dissolved Zinc		<0.11	mg/L	1.10	0.10

Sample: 176144 - 0143-HMW13-0701

Analysis: Dissolved Metals Analytical Method: S 6010B QC Batch: QC13655 Date Analyzed: 8/28/01
Analyst: BP Preparation Method: E 3005A Prep Batch: PB11340 Date Prepared: 8/13/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Aluminum		<0.55	mg/L	1.10	0.50
Dissolved Arsenic		<0.011	mg/L	1.10	0.01
Dissolved Barium		<0.011	mg/L	1.10	0.01
Dissolved Beryllium		<0.011	mg/L	1.10	0.01
Dissolved Boron		5.36	mg/L	110	0.01
Dissolved Cadmium		<0.0022	mg/L	1.10	0.002
Dissolved Chromium		<0.055	mg/L	1.10	0.05
Dissolved Cobalt		<0.011	mg/L	1.10	0.01
Dissolved Copper		<0.011	mg/L	1.10	0.01
Dissolved Iron		<0.022	mg/L	1.10	0.02
Dissolved Lead		<0.011	mg/L	1.10	0.01
Dissolved Lithium		0.342	mg/L	1.10	0.01
Dissolved Manganese		<0.0011	mg/L	1.10	0.001
Dissolved Molybdenum		0.218	mg/L	1.10	0.002
Dissolved Nickel		<0.011	mg/L	1.10	0.01
Dissolved Selenium		<0.011	mg/L	1.10	0.01
Dissolved Silica		10.72	mg/L	110	0.05
Dissolved Silver		<0.0011	mg/L	1.10	0.001
Dissolved Strontium		7.42	mg/L	110	0.01
Dissolved Tin		<0.011	mg/L	1.10	0.01
Dissolved Vanadium		<0.011	mg/L	1.10	0.01
Dissolved Zinc		<0.11	mg/L	1.10	0.10

Sample: 176146 - 0143-HMW39-0701-QC

Analysis: Dissolved Metals Analytical Method: S 6010B QC Batch: QC13655 Date Analyzed: 8/28/01
Analyst: BP Preparation Method: E 3005A Prep Batch: PB11340 Date Prepared: 8/13/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Aluminum		<0.55	mg/L	1.10	0.50
Dissolved Arsenic		<0.011	mg/L	1.10	0.01
Dissolved Barium		<0.011	mg/L	1.10	0.01
Dissolved Beryllium		<0.011	mg/L	1.10	0.01
Dissolved Boron		5.93	mg/L	110	0.01
Dissolved Cadmium		<0.0022	mg/L	1.10	0.002
Dissolved Chromium		0.286	mg/L	1.10	0.05
Dissolved Cobalt		<0.011	mg/L	1.10	0.01
Dissolved Copper		<0.011	mg/L	1.10	0.01
Dissolved Iron		<0.022	mg/L	1.10	0.02
Dissolved Lead		<0.011	mg/L	1.10	0.01
Dissolved Lithium		0.564	mg/L	1.10	0.01

Continued ...

... *Continued* Sample: 176146 Analysis: Dissolved Metals

Param	Flag	Result	Units	Dilution	RDL
Dissolved Manganese		<0.0011	mg/L	1.10	0.001
Dissolved Molybdenum		0.766	mg/L	1.10	0.002
Dissolved Nickel		0.024	mg/L	1.10	0.01
Dissolved Selenium		0.147	mg/L	1.10	0.01
Dissolved Silica		15.04	mg/L	110	0.05
Dissolved Silver		<0.0011	mg/L	1.10	0.001
Dissolved Strontium		7.60	mg/L	110	0.01
Dissolved Tin		<0.011	mg/L	1.10	0.01
Dissolved Vanadium		<0.011	mg/L	1.10	0.01
Dissolved Zinc		<0.110	mg/L	1.10	0.10

Sample: 176148 - 0143-HMW39-0701

Analysis: Dissolved Metals Analytical Method: S 6010B QC Batch: QC13655 Date Analyzed: 8/28/01
Analyst: BP Preparation Method: E 3005A Prep Batch: PB11340 Date Prepared: 8/13/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Aluminum		<0.550	mg/L	1.10	0.50
Dissolved Arsenic		<0.011	mg/L	1.10	0.01
Dissolved Barium		<0.011	mg/L	1.10	0.01
Dissolved Beryllium		<0.011	mg/L	1.10	0.01
Dissolved Boron		6.46	mg/L	110	0.01
Dissolved Cadmium		<0.0022	mg/L	1.10	0.002
Dissolved Chromium		0.274	mg/L	1.10	0.05
Dissolved Cobalt		<0.011	mg/L	1.10	0.01
Dissolved Copper		<0.011	mg/L	1.10	0.01
Dissolved Iron		<0.022	mg/L	1.10	0.02
Dissolved Lead		<0.011	mg/L	1.10	0.01
Dissolved Lithium		0.56	mg/L	1.10	0.01
Dissolved Manganese		<0.0011	mg/L	1.10	0.001
Dissolved Molybdenum		0.734	mg/L	1.10	0.002
Dissolved Nickel		0.022	mg/L	1.10	0.01
Dissolved Selenium		0.14	mg/L	1.10	0.01
Dissolved Silica		14.96	mg/L	110	0.05
Dissolved Silver		<0.0011	mg/L	1.10	0.001
Dissolved Strontium		7.51	mg/L	110	0.01
Dissolved Tin		<0.011	mg/L	1.10	0.01
Dissolved Vanadium		<0.011	mg/L	1.10	0.01
Dissolved Zinc		<0.110	mg/L	1.10	0.10

Sample: 176150 - 0143-HMW11-0701

Analysis: Dissolved Metals Analytical Method: S 6010B QC Batch: QC13655 Date Analyzed: 8/28/01
Analyst: BP Preparation Method: E 3005A Prep Batch: PB11340 Date Prepared: 8/13/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Aluminum		<0.550	mg/L	1.10	0.50
Dissolved Arsenic		<0.011	mg/L	1.10	0.01
Dissolved Barium		<0.011	mg/L	1.10	0.01
Dissolved Beryllium		<0.011	mg/L	1.10	0.01
Dissolved Boron		5.35	mg/L	110	0.01
Dissolved Cadmium		<0.0022	mg/L	1.10	0.002

Continued ...

... *Continued* Sample: 176150 Analysis: Dissolved Metals

Param	Flag	Result	Units	Dilution	RDL
Dissolved Chromium		0.188	mg/L	1.10	0.05
Dissolved Cobalt		<0.011	mg/L	1.10	0.01
Dissolved Copper		<0.011	mg/L	1.10	0.01
Dissolved Iron		<0.022	mg/L	1.10	0.02
Dissolved Lead		<0.011	mg/L	1.10	0.01
Dissolved Lithium		0.522	mg/L	1.10	0.01
Dissolved Manganese		<0.0011	mg/L	1.10	0.001
Dissolved Molybdenum		0.393	mg/L	1.10	0.002
Dissolved Nickel		0.015	mg/L	1.10	0.01
Dissolved Selenium		0.134	mg/L	1.10	0.01
Dissolved Silica		14.14	mg/L	110	0.05
Dissolved Silver		<0.0011	mg/L	1.10	0.001
Dissolved Strontium		6.88	mg/L	110	0.01
Dissolved Tin		<0.011	mg/L	1.10	0.01
Dissolved Vanadium		<0.011	mg/L	1.10	0.01
Dissolved Zinc		<0.110	mg/L	1.10	0.10

Sample: 176212 - 0143-HMW38-0801

Analysis: Dissolved Metals Analytical Method: S 6010B QC Batch: QC13655 Date Analyzed: 8/28/01
Analyst: BP Preparation Method: E 3005A Prep Batch: PB11340 Date Prepared: 8/13/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Aluminum		<0.550	mg/L	1.10	0.50
Dissolved Arsenic		<0.011	mg/L	1.10	0.01
Dissolved Barium		<0.011	mg/L	1.10	0.01
Dissolved Beryllium		<0.011	mg/L	1.10	0.01
Dissolved Boron		9.91	mg/L	110	0.01
Dissolved Cadmium		<0.0022	mg/L	1.10	0.002
Dissolved Chromium		<0.055	mg/L	1.10	0.05
Dissolved Cobalt		<0.011	mg/L	1.10	0.01
Dissolved Copper		<0.011	mg/L	1.10	0.01
Dissolved Iron		<0.022	mg/L	1.10	0.02
Dissolved Lead		<0.011	mg/L	1.10	0.01
Dissolved Lithium		0.424	mg/L	1.10	0.01
Dissolved Manganese		<0.0011	mg/L	1.10	0.001
Dissolved Molybdenum		0.620	mg/L	1.10	0.002
Dissolved Nickel		<0.011	mg/L	1.10	0.01
Dissolved Selenium		<0.011	mg/L	1.10	0.01
Dissolved Silica		15.6	mg/L	110	0.05
Dissolved Silver		<0.0011	mg/L	1.10	0.001
Dissolved Strontium		5.74	mg/L	110	0.01
Dissolved Tin		<0.011	mg/L	1.10	0.01
Dissolved Vanadium		<0.011	mg/L	1.10	0.01
Dissolved Zinc		<0.110	mg/L	1.10	0.10

Sample: 176214 - 0145-HMW41-0801

Analysis: Dissolved Metals Analytical Method: S 6010B QC Batch: QC13655 Date Analyzed: 8/28/01
Analyst: BP Preparation Method: E 3005A Prep Batch: PB11340 Date Prepared: 8/13/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Aluminum		<0.550	mg/L	1.10	0.50

Continued ...

... *Continued* Sample: 176214 Analysis: Dissolved Metals

Param	Flag	Result	Units	Dilution	RDL
Dissolved Arsenic		<0.011	mg/L	1.10	0.01
Dissolved Beryllium		<0.011	mg/L	1.10	0.01
Dissolved Boron		4.44	mg/L	110	0.01
Dissolved Cadmium		<0.0022	mg/L	1.10	0.002
Dissolved Chromium		1.76	mg/L	1.10	0.05
Dissolved Cobalt		<0.011	mg/L	1.10	0.01
Dissolved Copper		<0.011	mg/L	1.10	0.01
Dissolved Iron		<0.022	mg/L	1.10	0.02
Dissolved Lead		<0.011	mg/L	1.10	0.01
Dissolved Lithium		0.71	mg/L	1.10	0.01
Dissolved Manganese		<0.0011	mg/L	1.10	0.001
Dissolved Molybdenum		0.207	mg/L	1.10	0.002
Dissolved Nickel		0.107	mg/L	1.10	0.01
Dissolved Selenium		0.186	mg/L	1.10	0.01
Dissolved Silica		14.35	mg/L	110	0.05
Dissolved Silver		<0.0011	mg/L	1.10	0.001
Dissolved Strontium		9.03	mg/L	110	0.01
Dissolved Tin		<0.011	mg/L	1.10	0.01
Dissolved Vanadium		<0.011	mg/L	1.10	0.01
Dissolved Zinc		<0.110	mg/L	1.10	0.10

Sample: 176216 - 0143-HMW37-0801

Analysis: Dissolved Metals Analytical Method: S 6010B QC Batch: QC13655 Date Analyzed: 8/28/01
Analyst: BP Preparation Method: E 3005A Prep Batch: PB11340 Date Prepared: 8/13/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Aluminum		<0.550	mg/L	1.10	0.50
Dissolved Arsenic		<0.011	mg/L	1.10	0.01
Dissolved Barium		<0.011	mg/L	1.10	0.01
Dissolved Beryllium		<0.011	mg/L	1.10	0.01
Dissolved Boron		5.33	mg/L	110	0.01
Dissolved Cadmium		<0.0022	mg/L	1.10	0.002
Dissolved Chromium		<0.055	mg/L	1.10	0.05
Dissolved Cobalt		<0.011	mg/L	1.10	0.01
Dissolved Copper		<0.011	mg/L	1.10	0.01
Dissolved Iron		<0.022	mg/L	1.10	0.02
Dissolved Lead		<0.011	mg/L	1.10	0.01
Dissolved Lithium		0.325	mg/L	1.10	0.01
Dissolved Manganese		<0.001	mg/L	1.10	0.001
Dissolved Molybdenum		0.161	mg/L	1.10	0.002
Dissolved Nickel		<0.011	mg/L	1.10	0.01
Dissolved Selenium		<0.011	mg/L	1.10	0.01
Dissolved Silica		12.16	mg/L	110	0.05
Dissolved Silver		<0.001	mg/L	1.10	0.001
Dissolved Strontium		7.50	mg/L	110	0.01
Dissolved Tin		<0.011	mg/L	1.10	0.01
Dissolved Vanadium		<0.011	mg/L	1.10	0.01
Dissolved Zinc		<0.110	mg/L	1.10	0.10

Sample: 176347 - 0143-HMW40-0801

Analysis: Dissolved Metals Analytical Method: S 6010B QC Batch: QC13406 Date Analyzed: 8/16/01
Analyst: RR Preparation Method: E 3005A Prep Batch: PB11341 Date Prepared: 8/13/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Aluminum		<0.550	mg/L	1.10	0.50
Dissolved Arsenic		<0.011	mg/L	1.10	0.01
Dissolved Barium		<0.011	mg/L	1.10	0.01
Dissolved Beryllium		<0.011	mg/L	1.10	0.01
Dissolved Boron		8.00	mg/L	110	0.01
Dissolved Cadmium		<0.0022	mg/L	1.10	0.002
Dissolved Chromium		<0.055	mg/L	1.10	0.05
Dissolved Cobalt		<0.011	mg/L	1.10	0.01
Dissolved Copper		<0.011	mg/L	1.10	0.01
Dissolved Iron		<0.022	mg/L	1.10	0.02
Dissolved Lead		<0.011	mg/L	1.10	0.01
Dissolved Lithium		0.875	mg/L	11	0.01
Dissolved Manganese		<0.0011	mg/L	1.10	0.001
Dissolved Molybdenum		1.26	mg/L	1.10	0.002
Dissolved Nickel		< 0.011	mg/L	1.10	0.01
Dissolved Selenium		0.414	mg/L	1.10	0.01
Dissolved Silica		5.55	mg/L	110	0.05
Dissolved Silver		<0.001	mg/L	1.10	0.001
Dissolved Strontium		9.06	mg/L	110	0.01
Dissolved Tin		<0.011	mg/L	11	0.01
Dissolved Vanadium		<0.011	mg/L	1.10	0.01
Dissolved Zinc		<0.110	mg/L	1.10	0.10

Sample: 176349 - 0143-HMW36-0801

Analysis: Dissolved Metals Analytical Method: S 6010B QC Batch: QC13406 Date Analyzed: 8/16/01
Analyst: RR Preparation Method: E 3005A Prep Batch: PB11341 Date Prepared: 8/13/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Aluminum		<0.550	mg/L	1.10	0.50
Dissolved Arsenic		<0.011	mg/L	1.10	0.01
Dissolved Barium		<0.011	mg/L	1.10	0.01
Dissolved Beryllium		<0.011	mg/L	1.10	0.01
Dissolved Boron		13.0	mg/L	110	0.01
Dissolved Cadmium		<0.0022	mg/L	1.10	0.002
Dissolved Chromium		<0.055	mg/L	1.10	0.05
Dissolved Cobalt		<0.011	mg/L	1.10	0.01
Dissolved Copper		<0.011	mg/L	1.10	0.01
Dissolved Iron		<0.022	mg/L	1.10	0.02
Dissolved Lead		<0.011	mg/L	1.10	0.01
Dissolved Lithium		0.516	mg/L	11	0.01
Dissolved Manganese		0.398	mg/L	1.10	0.001
Dissolved Molybdenum		0.188	mg/L	1.10	0.002
Dissolved Nickel		<0.011	mg/L	1.10	0.01
Dissolved Selenium		0.043	mg/L	1.10	0.01
Dissolved Silica		11.1	mg/L	110	0.05
Dissolved Silver		<0.001	mg/L	1.10	0.001
Dissolved Strontium		8.26	mg/L	110	0.01
Dissolved Tin		<0.011	mg/L	1.10	0.01
Dissolved Vanadium		0.015	mg/L	1.10	0.01
Dissolved Zinc		<0.110	mg/L	1.10	0.10

Quality Control Report
Method Blank

Method Blank QCBatch: QC13406

Param	Flag	Results	Units	Reporting Limit
Dissolved Aluminum		<0.550	mg/L	0.50
Dissolved Arsenic		<0.011	mg/L	0.01
Dissolved Barium		<0.011	mg/L	0.01
Dissolved Beryllium		<0.011	mg/L	0.01
Dissolved Boron		<0.011	mg/L	0.01
Dissolved Cadmium		<0.0022	mg/L	0.002
Dissolved Chromium		<0.055	mg/L	0.05
Dissolved Cobalt		<0.011	mg/L	0.01
Dissolved Copper		<0.011	mg/L	0.01
Dissolved Iron		<0.022	mg/L	0.02
Dissolved Lead		<0.011	mg/L	0.01
Dissolved Lithium		<0.0011	mg/L	0.01
Dissolved Manganese		<0.0011	mg/L	0.001
Dissolved Molybdenum	1	0.004	mg/L	0.002
Dissolved Nickel		<0.011	mg/L	0.01
Dissolved Selenium		<0.011	mg/L	0.01
Dissolved Silica		<0.550	mg/L	0.05
Dissolved Silver		<0.001	mg/L	0.001
Dissolved Strontium		<0.011	mg/L	0.01
Dissolved Tin		<0.011	mg/L	0.01
Dissolved Vanadium		<0.011	mg/L	0.01
Dissolved Zinc		<0.110	mg/L	0.10

Method Blank QCBatch: QC13655

Param	Flag	Results	Units	Reporting Limit
Dissolved Aluminum		<0.550	mg/L	0.50
Dissolved Arsenic		<0.011	mg/L	0.01
Dissolved Barium		<0.011	mg/L	0.01
Dissolved Beryllium		<0.011	mg/L	0.01
Dissolved Boron		<0.011	mg/L	0.01
Dissolved Cadmium		<0.0022	mg/L	0.002
Dissolved Chromium		<0.005	mg/L	0.05
Dissolved Cobalt		<0.011	mg/L	0.01
Dissolved Copper		<0.011	mg/L	0.01
Dissolved Iron		<0.022	mg/L	0.02
Dissolved Lead		<0.011	mg/L	0.01
Dissolved Lithium		<0.011	mg/L	0.01
Dissolved Manganese		<0.0011	mg/L	0.001
Dissolved Molybdenum		<0.002	mg/L	0.002
Dissolved Nickel		<0.011	mg/L	0.01
Dissolved Selenium		<0.011	mg/L	0.01
Dissolved Silica		<0.550	mg/L	0.05

Continued ...

[1] Analyte contained in method blank. All samples contain greater than 10x amount recovered in method blank.

TRACEANALYSIS, INC.

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FAX COVER SHEET

TO: Jennifer Davis

COMPANY: Mevatec

DATE: 9/5/01

FAX NO: 1(505)678-6096

NO OF PAGES FOLLOWING: 2

FROM: Mike Abel

MESSAGE: Corrections to Dissolved Metals for 800 GG

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A Laboratory For Advanced Environmental Research and Analysis

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Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Dissolved Cobalt	0.252	0.25	mg/L	1.2	0.25	<0.011	100	1	85 - 115	20
Dissolved Copper	0.115	0.114	mg/L	1.2	0.125	<0.011	92	1	85 - 115	20
Dissolved Iron	0.483	0.484	mg/L	1.2	0.5	<0.022	96	0	85 - 115	20
Dissolved Lead	0.504	0.499	mg/L	1.2	0.5	<0.011	100	1	85 - 115	20
Dissolved Lithium	0.0451	0.0448	mg/L	1.2	0.05	<0.011	90	1	85 - 115	20
Dissolved Manganese	0.249	0.25	mg/L	1.2	0.25	<0.0011	99	0	85 - 115	20
Dissolved Molybdenum	0.51	0.509	mg/L	1.2	0.5	<0.002	102	0	85 - 115	20
Dissolved Nickel	0.241	0.238	mg/L	1.2	0.25	<0.011	96	1	85 - 115	20
Dissolved Selenium	0.431	0.434	mg/L	1.2	0.5	<0.011	86	1	85 - 115	20
Dissolved Silica	0.495	0.482	mg/L	1.2	0.5	<0.550	99	0	85 - 115	20
Dissolved Silver	0.122	0.122	mg/L	1.2	0.125	<0.0011	97	0	85 - 115	20
Dissolved Strontium	0.0541	0.0541	mg/L	1.2	0.05	<0.011	108	4	85 - 115	20
Dissolved Tin	0.338	0.323	mg/L	1.2	0.3	<0.011	113	0	85 - 115	20
Dissolved Vanadium	0.25	0.25	mg/L	1.2	0.25	<0.011	100	0	85 - 115	20
Dissolved Zinc	0.234	0.231	mg/L	1.2	0.25	<0.110	93	0	85 - 115	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Quality Control Report
Matrix Spikes and Duplicate Spikes

Matrix Spikes

QCBatch: QC13406

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Dissolved Aluminum	0.895	0.894	mg/L	1.2	1	<0.550	89	0	75 - 125	20
Dissolved Arsenic	0.565	0.594	mg/L	1.2	0.5	<0.011	113	5	75 - 125	20
Dissolved Barium	0.967	0.969	mg/L	1.2	1	<0.011	96	0	75 - 125	20
Dissolved Beryllium	0.022	0.022	mg/L	1.2	0.025	<0.011	88	0	75 - 125	20
Dissolved Boron	[4] 1	[5] 0.998	mg/L	1.2	0.05	0.97	60	6	75 - 125	20
Dissolved Cadmium	0.228	0.235	mg/L	1.2	0.25	<0.002	91	3	75 - 125	20
Dissolved Chromium	0.087	0.089	mg/L	1.2	0.1	<0.055	87	2	75 - 125	20
Dissolved Cobalt	0.241	0.249	mg/L	1.2	0.25	<0.011	96	3	75 - 125	20
Dissolved Copper	0.153	0.152	mg/L	1.2	0.125	0.013	112	0	75 - 125	20
Dissolved Iron	0.464	0.477	mg/L	1.2	0.5	<0.022	92	2	75 - 125	20
Dissolved Lead	0.478	0.493	mg/L	1.2	0.5	<0.011	95	3	75 - 125	20
Dissolved Lithium	[6] 0.418	[7] 0.421	mg/L	11.2	0.05	0.346	144	4	75 - 125	20
Dissolved Manganese	0.24	0.242	mg/L	1.2	0.25	<0.001	96	0	75 - 125	20
Dissolved Molybdenum	0.572	0.586	mg/L	1.2	0.5	0.096	95	2	75 - 125	20
Dissolved Nickel	0.253	0.261	mg/L	1.2	0.25	<0.011	101	3	75 - 125	20
Dissolved Selenium	0.505	0.527	mg/L	1.2	0.5	0.049	91	4	75 - 125	20
Dissolved Silica	[8] 21	[9] 21	mg/L	1.2	0.5	23	-400	0	75 - 125	20
Dissolved Silver	0.13	0.132	mg/L	1.2	0.125	<0.001	104	1	75 - 125	20
Dissolved Strontium	[10] 7	[11] 7	mg/L	1.2	0.05	8	-2000	0	75 - 125	20

Continued ...

[4]Matrix spike recovery invalid due to required dilution. LCS demonstrates process under control.
[5]Matrix spike recovery invalid due to required dilution. LCS demonstrates process under control.
[6]Matrix spike recovery invalid due to required dilution. LCS demonstrates process under control.
[7]Matrix spike recovery invalid due to required dilution. LCS demonstrates process under control.
[8]Matrix spike recovery invalid due to required dilution. LCS demonstrates process under control.
[9]Matrix spike recovery invalid due to required dilution. LCS demonstrates process under control.
[10]Matrix spike recovery invalid due to required dilution. LCS demonstrates process under control.
[11]Matrix spike recovery invalid due to required dilution. LCS demonstrates process under control.

... Continued

Param	Flag	Results	Units	Reporting Limit
Dissolved Silver		<0.0011	mg/L	0.001
Dissolved Strontium		<0.011	mg/L	0.01
Dissolved Tin		<0.011	mg/L	0.01
Dissolved Vanadium		<0.011	mg/L	0.01
Dissolved Zinc		<0.110	mg/L	0.10

Quality Control Report
Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes

QCBatch: QC13406

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Dissolved Aluminum	0.862	0.850	mg/L	1.20	1	<0.550	86	1	85 - 115	20
Dissolved Arsenic	0.559	0.556	mg/L	1.20	0.50	<0.011	111	0	85 - 115	20
Dissolved Barium	0.965	0.951	mg/L	1.20	1	<0.011	96	1	85 - 115	20
Dissolved Beryllium	0.024	0.023	mg/L	1.20	0.02	<0.011	96	4	85 - 115	20
Dissolved Boron	0.050	0.048	mg/L	1.20	0.05	<0.011	100	4	85 - 115	20
Dissolved Cadmium	0.247	0.241	mg/L	1.20	0.25	<0.0022	98	2	85 - 115	20
Dissolved Chromium	0.097	0.095	mg/L	1.20	0.10	<0.055	97	2	85 - 115	20
Dissolved Cobalt	0.246	0.241	mg/L	1.20	0.25	<0.011	98	2	85 - 115	20
Dissolved Copper	0.121	0.125	mg/L	1.20	0.12	<0.011	96	3	85 - 115	20
Dissolved Iron	0.478	0.495	mg/L	1.20	0.50	<0.022	95	3	85 - 115	20
Dissolved Lead	0.498	0.488	mg/L	1.20	0.50	<0.011	99	2	85 - 115	20
Dissolved Lithium	[2] 0.042	[3] 0.0412	mg/L	1.12	0.05	<0.0011	84	1	85 - 115	20
Dissolved Manganese	0.241	0.238	mg/L	1.20	0.25	<0.0011	96	1	85 - 115	20
Dissolved Molybdenum	0.511	0.498	mg/L	1.20	0.50	0.004	101	2	85 - 115	20
Dissolved Nickel	0.242	0.238	mg/L	1.20	0.25	<0.011	96	1	85 - 115	20
Dissolved Selenium	0.462	0.439	mg/L	1.20	0.50	<0.011	92	5	85 - 115	20
Dissolved Silica	0.505	0.485	mg/L	1.20	0.50	<0.550	101	4	85 - 115	20
Dissolved Silver	0.125	0.121	mg/L	1.20	0.12	<0.001	100	3	85 - 115	20
Dissolved Strontium	0.051	0.050	mg/L	1.20	0.05	<0.011	102	1	85 - 115	20
Dissolved Tin	0.302	0.287	mg/L	1.12	0.30	<0.011	100	5	85 - 115	20
Dissolved Vanadium	0.244	0.239	mg/L	1.20	0.25	<0.011	97	2	85 - 115	20
Dissolved Zinc	0.252	0.248	mg/L	1.20	0.25	<0.110	100	1	85 - 115	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spikes

QCBatch: QC13655

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Dissolved Aluminum	0.927	0.933	mg/L	1.20	1	<0.550	92	1	85 - 115	20
Dissolved Arsenic	0.519	0.516	mg/L	1.20	0.50	<0.011	104	0	85 - 115	20
Dissolved Barium	1.00	1.00	mg/L	1.20	1	<0.011	100	0	85 - 115	20
Dissolved Beryllium	0.0238	0.0238	mg/L	1.20	0.02	<0.011	95	0	85 - 115	20
Dissolved Boron	0.043	0.0415	mg/L	1.20	0.05	<0.011	86	4	85 - 115	20
Dissolved Cadmium	0.243	0.244	mg/L	1.20	0.25	<0.0022	97	0	85 - 115	20
Dissolved Chromium	0.101	0.099	mg/L	1.20	0.10	<0.005	101	2	85 - 115	20

Continued ...

[2] Analyte outside of standard range. Other analytes show spiked extracted properly.
[3] Analyte outside of standard range. Other analytes show spiked extracted properly.

. . . Continued

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Dissolved Cobalt	0.252	0.250	mg/L	1.20	0.25	<0.011	100	1	85 - 115	20
Dissolved Copper	0.115	0.114	mg/L	1.20	0.12	<0.011	92	1	85 - 115	20
Dissolved Iron	0.483	0.484	mg/L	1.20	0.50	<0.022	96	0	85 - 115	20
Dissolved Lead	0.504	0.499	mg/L	1.20	0.50	<0.011	100	1	85 - 115	20
Dissolved Lithium	0.0451	0.0448	mg/L	1.20	0.05	<0.011	90	1	85 - 115	20
Dissolved Manganese	0.249	0.250	mg/L	1.20	0.25	<0.0011	99	0	85 - 115	20
Dissolved Molybdenum	0.510	0.509	mg/L	1.20	0.50	<0.002	102	0	85 - 115	20
Dissolved Nickel	0.241	0.238	mg/L	1.20	0.25	<0.011	96	1	85 - 115	20
Dissolved Selenium	0.431	0.434	mg/L	1.20	0.50	<0.011	86	1	85 - 115	20
Dissolved Silica	0.495	0.482	mg/L	1.20	0.50	<0.550	99	0	85 - 115	20
Dissolved Silver	0.122	0.122	mg/L	1.20	0.12	<0.0011	97	0	85 - 115	20
Dissolved Strontium	0.0541	0.0541	mg/L	1.20	0.05	<0.011	108	4	85 - 115	20
Dissolved Tin	0.338	0.323	mg/L	1.20	0.30	<0.011	113	0	85 - 115	20
Dissolved Vanadium	0.250	0.250	mg/L	1.20	0.25	<0.011	100	0	85 - 115	20
Dissolved Zinc	0.234	0.231	mg/L	1.20	0.25	<0.110	93	0	85 - 115	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Quality Control Report
Matrix Spikes and Duplicate Spikes

Matrix Spikes

QCBatch: QC13406

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Dissolved Aluminum	0.895	0.894	mg/L	1.20	1	<0.550	89	0	75 - 125	20
Dissolved Arsenic	0.565	0.594	mg/L	1.20	0.50	<0.011	113	5	75 - 125	20
Dissolved Barium	0.967	0.969	mg/L	1.20	1	<0.011	96	0	75 - 125	20
Dissolved Beryllium	0.022	0.022	mg/L	1.20	0.02	<0.011	88	0	75 - 125	20
Dissolved Boron	[4] 1	[5] 0.998	mg/L	1.20	0.05	0.970	60	6	75 - 125	20
Dissolved Cadmium	0.228	0.235	mg/L	1.20	0.25	<0.002	91	3	75 - 125	20
Dissolved Chromium	0.087	0.089	mg/L	1.20	0.10	<0.055	87	2	75 - 125	20
Dissolved Cobalt	0.241	0.249	mg/L	1.20	0.25	<0.011	96	3	75 - 125	20
Dissolved Copper	0.153	0.152	mg/L	1.20	0.12	0.013	112	0	75 - 125	20
Dissolved Iron	0.464	0.477	mg/L	1.20	0.50	<0.022	92	2	75 - 125	20
Dissolved Lead	0.478	0.493	mg/L	1.20	0.50	<0.011	95	3	75 - 125	20
Dissolved Lithium	[6] 0.418	[7] 0.421	mg/L	11.20	0.05	0.346	144	4	75 - 125	20
Dissolved Manganese	0.240	0.242	mg/L	1.20	0.25	<0.001	96	0	75 - 125	20
Dissolved Molybdenum	0.572	0.586	mg/L	1.20	0.50	0.096	95	2	75 - 125	20
Dissolved Nickel	0.253	0.261	mg/L	1.20	0.25	<0.011	101	3	75 - 125	20
Dissolved Selenium	0.505	0.527	mg/L	1.20	0.50	0.049	91	4	75 - 125	20
Dissolved Silica	[8] 21	[9] 21	mg/L	1.20	0.50	23.0	-400	0	75 - 125	20
Dissolved Silver	0.130	0.132	mg/L	1.20	0.12	<0.001	104	1	75 - 125	20
Dissolved Strontium	[10] 7	[11] 7	mg/L	1.20	0.05	8.00	-2000	0	75 - 125	20

Continued . . .

[4]Matrix spike recovery invalid due to required dilution. LCS demonstrates process under control.
[5]Matrix spike recovery invalid due to required dilution. LCS demonstrates process under control.
[6]Matrix spike recovery invalid due to required dilution. LCS demonstrates process under control.
[7]Matrix spike recovery invalid due to required dilution. LCS demonstrates process under control.
[8]Matrix spike recovery invalid due to required dilution. LCS demonstrates process under control.
[9]Matrix spike recovery invalid due to required dilution. LCS demonstrates process under control.
[10]Matrix spike recovery invalid due to required dilution. LCS demonstrates process under control.
[11]Matrix spike recovery invalid due to required dilution. LCS demonstrates process under control.

... Continued

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Dissolved Tin	[12] 0.150	[13] 0.152	mg/L	11.20	0.30	<0.011	50	1	75 - 125	20
Dissolved Vanadium	0.258	0.258	mg/L	1.20	0.25	0.018	96	0	75 - 125	20
Dissolved Zinc	0.243	0.248	mg/L	1.20	0.25	<0.110	97	2	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Quality Control Report
Continuing Calibration Verification Standards

CCV (1) QCBatch: QC13406

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Aluminum		mg/L	2	1.85	92	90 - 110	8/16/01
Dissolved Arsenic		mg/L	1	1.02	102	90 - 110	8/16/01
Dissolved Barium		mg/L	2	1.97	98	90 - 110	8/16/01
Dissolved Beryllium		mg/L	0.05	0.049	98	90 - 110	8/16/01
Dissolved Boron		mg/L	0.10	0.104	104	90 - 110	8/16/01
Dissolved Cadmium		mg/L	0.50	0.493	98	90 - 110	8/16/01
Dissolved Chromium		mg/L	0.20	0.203	101	90 - 110	8/16/01
Dissolved Cobalt		mg/L	0.50	0.502	100	90 - 110	8/16/01
Dissolved Copper		mg/L	0.25	0.242	96	90 - 110	8/16/01
Dissolved Iron		mg/L	1	0.994	99	90 - 110	8/16/01
Dissolved Lead		mg/L	1	0.996	99	90 - 110	8/16/01
Dissolved Lithium		mg/L	0.10	0.0923	92	90 - 110	8/16/01
Dissolved Manganese		mg/L	0.50	0.492	98	90 - 110	8/16/01
Dissolved Molybdenum		mg/L	1	0.997	99	90 - 110	8/16/01
Dissolved Nickel		mg/L	0.50	0.499	99	90 - 110	8/16/01
Dissolved Selenium		mg/L	1	1.03	103	90 - 110	8/16/01
Dissolved Silica		mg/L	1	0.990	99	90 - 110	8/16/01
Dissolved Silver		mg/L	0.25	0.247	98	90 - 110	8/16/01
Dissolved Strontium		mg/L	0.10	0.098	98	90 - 110	8/16/01
Dissolved Tin		mg/L	0.50	0.474	94	90 - 110	8/16/01
Dissolved Vanadium		mg/L	0.50	0.493	98	90 - 110	8/16/01
Dissolved Zinc		mg/L	0.50	0.500	100	90 - 110	8/16/01

ICV (1) QCBatch: QC13406

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Aluminum		mg/L	2	2.03	101	90 - 110	8/16/01
Dissolved Arsenic		mg/L	1	1.08	108	90 - 110	8/16/01
Dissolved Barium		mg/L	2	2.03	101	90 - 110	8/16/01

Continued ...

[12]Matrix spike recovery invalid due to matrix difficulties. LCS demonstrates process under control.
[13]Matrix spike recovery invalid due to matrix difficulties. LCS demonstrates process under control.

... Continued

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Beryllium		mg/L	0.05	0.050	100	90 - 110	8/16/01
Dissolved Boron		mg/L	0.10	0.107	107	90 - 110	8/16/01
Dissolved Cadmium		mg/L	0.50	0.507	101	90 - 110	8/16/01
Dissolved Chromium		mg/L	0.20	0.210	105	90 - 110	8/16/01
Dissolved Cobalt		mg/L	0.50	0.523	104	90 - 110	8/16/01
Dissolved Copper		mg/L	0.25	0.250	100	90 - 110	8/16/01
Dissolved Iron		mg/L	1	1.02	102	90 - 110	8/16/01
Dissolved Lead		mg/L	1	1.05	105	90 - 110	8/16/01
Dissolved Lithium		mg/L	0.10	0.0907	90	90 - 110	8/16/01
Dissolved Manganese		mg/L	0.50	0.506	101	90 - 110	8/16/01
Dissolved Molybdenum		mg/L	1	1.1	110	90 - 110	8/16/01
Dissolved Nickel		mg/L	0.50	0.524	104	90 - 110	8/16/01
Dissolved Selenium		mg/L	1	1.06	106	90 - 110	8/16/01
Dissolved Silica		mg/L	1	1.02	102	90 - 110	8/16/01
Dissolved Silver		mg/L	0.25	0.253	101	90 - 110	8/16/01
Dissolved Strontium		mg/L	0.10	0.101	101	90 - 110	8/16/01
Dissolved Tin		mg/L	0.50	0.506	101	90 - 110	8/16/01
Dissolved Vanadium		mg/L	0.50	0.507	101	90 - 110	8/16/01
Dissolved Zinc		mg/L	0.50	0.514	102	90 - 110	8/16/01

CCV (1) QCBatch: QC13655

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Aluminum		mg/L	2	1.98	99	90 - 110	8/28/01
Dissolved Arsenic		mg/L	1	0.930	93	90 - 110	8/28/01
Dissolved Barium		mg/L	2	1.89	94	90 - 110	8/28/01
Dissolved Beryllium		mg/L	0.05	0.047	94	90 - 110	8/28/01
Dissolved Boron		mg/L	0.10	0.109	109	90 - 110	8/28/01
Dissolved Cadmium		mg/L	0.50	0.469	94	90 - 110	8/28/01
Dissolved Chromium		mg/L	0.20	0.191	96	90 - 110	8/28/01
Dissolved Cobalt		mg/L	0.50	0.479	96	90 - 110	8/28/01
Dissolved Copper		mg/L	0.25	0.233	93	90 - 110	8/28/01
Dissolved Iron		mg/L	1	0.942	94	90 - 110	8/28/01
Dissolved Lead		mg/L	1	0.946	95	90 - 110	8/28/01
Dissolved Lithium		mg/L	0.10	0.0947	95	90 - 110	8/28/01
Dissolved Manganese		mg/L	0.50	0.474	95	90 - 110	8/28/01
Dissolved Molybdenum		mg/L	1	0.943	94	90 - 110	8/28/01
Dissolved Nickel		mg/L	0.50	0.507	101	90 - 110	8/28/01
Dissolved Selenium		mg/L	1	0.934	93	90 - 110	8/28/01
Dissolved Silica		mg/L	1	0.955	96	90 - 110	8/28/01
Dissolved Silver		mg/L	0.25	0.235	94	90 - 110	8/28/01
Dissolved Strontium		mg/L	0.10	0.0965	96	90 - 110	8/28/01
Dissolved Tin		mg/L	0.50	0.475	95	90 110	8/28/01
Dissolved Vanadium		mg/L	0.50	0.470	94	90 - 110	8/28/01
Dissolved Zinc		mg/L	0.50	0.468	94	90 - 110	8/28/01

ICV (1) QCBatch: QC13655

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Aluminum		mg/L	2	1.96	98	90 - 110	8/28/01
Dissolved Arsenic		mg/L	1	1.01	101	90 - 110	8/28/01
Dissolved Barium		mg/L	2	2.00	100	90 - 110	8/28/01
Dissolved Beryllium		mg/L	0.05	0.0497	99	90 - 110	8/28/01
Dissolved Boron		mg/L	0.10	0.110	110	90 - 110	8/28/01
Dissolved Cadmium		mg/L	0.50	0.500	100	90 - 110	8/28/01
Dissolved Chromium		mg/L	0.20	0.205	102	90 - 110	8/28/01
Dissolved Cobalt		mg/L	0.50	0.504	101	90 - 110	8/28/01
Dissolved Copper		mg/L	0.25	0.245	98	90 - 110	8/28/01
Dissolved Iron		mg/L	1	1.01	101	90 - 110	8/28/01
Dissolved Lead		mg/L	1	1.00	100	90 - 110	8/28/01
Dissolved Lithium		mg/L	0.10	0.0957	96	90 - 110	8/28/01
Dissolved Manganese		mg/L	0.50	0.499	100	90 - 110	8/28/01
Dissolved Molybdenum		mg/L	1	1.00	100	90 - 110	8/28/01
Dissolved Nickel		mg/L	0.50	0.515	103	90 - 110	8/28/01
Dissolved Selenium		mg/L	1	1.00	100	90 - 110	8/28/01
Dissolved Silica		mg/L	1	1.01	101	90 - 110	8/28/01
Dissolved Silver		mg/L	0.25	0.248	99	90 - 110	8/28/01
Dissolved Strontium		mg/L	0.10	0.100	100	90 - 110	8/28/01
Dissolved Tin		mg/L	0.50	0.507	101	90 - 110	8/28/01
Dissolved Vanadium		mg/L	0.50	0.495	99	90 - 110	8/28/01
Dissolved Zinc		mg/L	0.50	0.501	100	90 - 110	8/28/01

Volatile Organic Samples and Trip Blank Results
Volatile Organic Samples and Trip Blank Quality Control

TRACEANALYSIS, INC.

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Analytical and Quality Control Report

Karen Costa
Mevatec
P.O. Box 399 Bldg. 126
WSMR, NM 88002

Report Date: August 29, 2001

Order ID Number: A01080205

Project Number: 800 GG
Project Name: Ground Water Sampling at Helstf Chrome Site
Project Location: N/A

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
176140	0143-HMW43-0701	Water	7/31/01	15:02	8/1/01
176141	0143-HMW43-0701-TB	Water	7/31/01	15:02	8/1/01
176142	0143-HMW13-0701-QC	Water	7/31/01	14:37	8/1/01
176143	0143-HMW13-0701-QC-TB	Water	7/31/01	14:37	8/1/01
176144	0143-HMW13-0701	Water	7/31/01	14:37	8/1/01
176145	0143-HMW13-0701-TB	Water	7/31/01	14:37	8/1/01
176146	0143-HMW39-0701-QC	Water	7/31/01	12:07	8/1/01
176147	0143-HMW39-0701-QC-TB	Water	7/31/01	12:07	8/1/01
176148	0143-HMW39-0701	Water	7/31/01	12:07	8/1/01
176149	0143-HMW39-0701-TB	Water	7/31/01	12:07	8/1/01
176150	0143-HMW11-0701	Water	7/31/01	10:54	8/1/01
176151	0143-HMW11-0701-TB	Water	7/31/01	10:54	8/1/01
176212	0143-HMW38-0801	Water	8/1/01	1:17	8/2/01
176213	0143-HMW38-0801TB	Water	8/1/01	1:17	8/2/01
176214	0145-HMW41-0801	Water	8/1/01	13:28	8/2/01
176215	0145-HMW41-0801-TB	Water	8/1/01	13:28	8/2/01
176216	0143-HMW37-0801	Water	8/1/01	1:17	8/2/01
176217	0143 HMW37 0801 TB	Water	8/1/01	1:17	8/2/01
176347	0143-HMW40-0801	Water	8/2/01	12:11	8/3/01
176348	0143-HMW40-0801-TB	Water	8/2/01	12:11	8/3/01
176349	0143-HMW36-0801	Water	8/2/01	11:17	8/3/01
176350	0143-HMW36-0801-TB	Water	8/2/01	11:17	8/3/01

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

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Michael T. Abel
Dr. Blair Leftwich, Director

Analytical Report

Sample: 176140 - 0143-HMW43-0701

Analysis:	8260	Analytical Method:	S 8260B	QC Batch:	QC13271	Date Analyzed:	8/10/01
Analyst:	JG	Preparation Method:	E 5030B	Prep Batch:	PB11322	Date Prepared:	8/10/01

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<1.00	µg/L	1	1
Dichlorodifluoromethane		<1.00	µg/L	1	1
Chloromethane (methyl chloride)		<1.00	µg/L	1	1
Vinyl Chloride		<1.00	µg/L	1	1
Bromomethane (methyl bromide)		<5.00	µg/L	1	5
Chloroethane		<1.00	µg/L	1	1
Trichlorofluoromethane		<1.00	µg/L	1	1
Acetone		<10.0	µg/L	1	10
Iodomethane (methyl iodide)		<5.00	µg/L	1	5
Carbon Disulfide		<1.00	µg/L	1	1
Acrylonitrile		<1.00	µg/L	1	1
2-Butanone (MEK)		<5.00	µg/L	1	5
4-methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5
2-hexanone		<5.00	µg/L	1	5
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10
1,1-Dichloroethene		<1.00	µg/L	1	1
Methylene chloride		<5.00	µg/L	1	5
MTBE		<1.00	µg/L	1	1
trans-1,2-Dichloroethene		<1.00	µg/L	1	1
1,1-Dichloroethane		<1.00	µg/L	1	1
cis-1,2-Dichloroethene		<1.00	µg/L	1	1
2,2-Dichloropropane		<1.00	µg/L	1	1
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1
Chloroform		<1.00	µg/L	1	1
1,1,1-Trichloroethane		<1.00	µg/L	1	1
1,1-Dichloropropene		<1.00	µg/L	1	1
Benzene		<1.00	µg/L	1	1
Carbon Tetrachloride		<1.00	µg/L	1	1
1,2-Dichloropropane		<1.00	µg/L	1	1
Trichloroethene (TCE)		1.13	µg/L	1	1
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1
Bromodichloromethane		<1.00	µg/L	1	1
2-Chloroethyl vinyl ether		<1.00	µg/L	1	5
cis-1,3-Dichloropropene		<1.00	µg/L	1	1
trans-1,3-Dichloropropene		<1.00	µg/L	1	1
Toluene		<1.00	µg/L	1	1
1,1,2-Trichloroethane		<1.00	µg/L	1	1
1,3-Dichloropropane		<1.00	µg/L	1	1
Dibromochloromethane		<1.00	µg/L	1	1
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1
Tetrachloroethene (PCE)		<1.00	µg/L	1	1
Chlorobenzene		<1.00	µg/L	1	1
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1
Ethylbenzene		<1.00	µg/L	1	1
m,p-Xylene		<1.00	µg/L	1	1
Bromoform		<1.00	µg/L	1	1
Styrene		<1.00	µg/L	1	1
o-Xylene		<1.00	µg/L	1	1

Continued ...

... *Continued* Sample: 176140 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
1,1,2,2-Tetrachloroethane		<1.00	μg/L	1	1
2-Chlorotoluene		<1.00	μg/L	1	1
1,2,3-Trichloropropane		<1.00	μg/L	1	1
Isopropylbenzene		<1.00	μg/L	1	1
Bromobenzene		<1.00	μg/L	1	1
n-Propylbenzene		<1.00	μg/L	1	1
1,3,5-Trimethylbenzene		<1.00	μg/L	1	1
tert-Butylbenzene		<1.00	μg/L	1	1
1,2,4-Trimethylbenzene		<1.00	μg/L	1	1
1,4-Dichlorobenzene (para)		<1.00	μg/L	1	1
sec-Butylbenzene		<1.00	μg/L	1	1
1,3-Dichlorobenzene		<1.00	μg/L	1	1
p-Isopropyltoluene		<1.00	μg/L	1	1
4-Chlorotoluene		<1.00	μg/L	1	1
1,2-Dichlorobenzene (ortho)		<1.00	μg/L	1	1
n Butylbenzene		<1.00	μg/L	1	1
1,2-Dibromo-3-chloropropane		<5.00	μg/L	1	5
1,2,3-Trichlorobenzene		<5.00	μg/L	1	5
1,2,4-Trichlorobenzene		<5.00	μg/L	1	5
Naphthalene		<5.00	μg/L	1	5
Hexachlorobutadiene		<5.00	μg/L	1	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		47.81	μg/L	1	50	95	88 - 112
Toluene-d8		48.88	μg/L	1	50	97	90 - 109
4-Bromofluorobenzene		49.32	μg/L	1	50	98	84 - 103

Sample: 176141 - 0143-HMW43-0701-TB

Analysis:	8260	Analytical Method:	S 8260B	QC Batch:	QC13271	Date Analyzed:	8/10/01
Analyst:	JG	Preparation Method:	E 5030B	Prep Batch:	PB11322	Date Prepared:	8/10/01

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<1.00	μg/L	1	1
Dichlorodifluoromethane		<1.00	μg/L	1	1
Chloromethane (methyl chloride)		<1.00	μg/L	1	1
Vinyl Chloride		<1.00	μg/L	1	1
Bromomethane (methyl bromide)		<5.00	μg/L	1	5
Chloroethane		<1.00	μg/L	1	1
Trichlorofluoromethane		<1.00	μg/L	1	1
Acetone	1	11.4	μg/L	1	10
Iodomethane (methyl iodide)		<5.00	μg/L	1	5
Carbon Disulfide		<1.00	μg/L	1	1
Acrylonitrile		<1.00	μg/L	1	1
2-Butanone (MEK)		<5.00	μg/L	1	5
4-methyl-2-pentanone (MIBK)		<5.00	μg/L	1	5
2-hexanone		<5.00	μg/L	1	5
trans 1,4-Dichloro-2-butene		<10.0	μg/L	1	10
1,1-Dichloroethene		<1.00	μg/L	1	1
Methylene chloride		<5.00	μg/L	1	5

Continued ...

[1] possible lab contamination

... *Continued* Sample: 176141 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
MTBE		<1.00	μg/L	1	1
trans-1,2-Dichloroethene		<1.00	μg/L	1	1
1,1-Dichloroethane		<1.00	μg/L	1	1
cis-1,2-Dichloroethene		<1.00	μg/L	1	1
2,2-Dichloropropane		<1.00	μg/L	1	1
1,2-Dichloroethane (EDC)		<1.00	μg/L	1	1
Chloroform		<1.00	μg/L	1	1
1,1,1-Trichloroethane		<1.00	μg/L	1	1
1,1-Dichloropropene		<1.00	μg/L	1	1
Benzene		<1.00	μg/L	1	1
Carbon Tetrachloride		<1.00	μg/L	1	1
1,2-Dichloropropane		<1.00	μg/L	1	1
Trichloroethene (TCE)		<1.00	μg/L	1	1
Dibromomethane (methylene bromide)		<1.00	μg/L	1	1
Bromodichloromethane		<1.00	μg/L	1	1
2-Chloroethyl vinyl ether		<5.00	μg/L	1	5
cis-1,3-Dichloropropene		<1.00	μg/L	1	1
trans-1,3-Dichloropropene		<1.00	μg/L	1	1
Toluene		1.25	μg/L	1	1
1,1,2-Trichloroethane		<1.00	μg/L	1	1
1,3-Dichloropropane		<1.00	μg/L	1	1
Dibromochloromethane		<1.00	μg/L	1	1
1,2-Dibromoethane (EDB)		<1.00	μg/L	1	1
Tetrachloroethene (PCE)		<1.00	μg/L	1	1
Chlorobenzene		<1.00	μg/L	1	1
1,1,1,2-Tetrachloroethane		<1.00	μg/L	1	1
Ethylbenzene		<1.00	μg/L	1	1
m,p-Xylene		<1.00	μg/L	1	1
Bromoform		<1.00	μg/L	1	1
Styrene		<1.00	μg/L	1	1
o-Xylene		<1.00	μg/L	1	1
1,1,2,2-Tetrachloroethane		<1.00	μg/L	1	1
2-Chlorotoluene		<1.00	μg/L	1	1
1,2,3-Trichloropropane		<1.00	μg/L	1	1
Isopropylbenzene		<1.00	μg/L	1	1
Bromobenzene		<1.00	μg/L	1	1
n-Propylbenzene		<1.00	μg/L	1	1
1,3,5-Trimethylbenzene		<1.00	μg/L	1	1
tert-Butylbenzene		<1.00	μg/L	1	1
1,2,4-Trimethylbenzene		<1.00	μg/L	1	1
1,4-Dichlorobenzene (para)		<1.00	μg/L	1	1
sec-Butylbenzene		<1.00	μg/L	1	1
1,3-Dichlorobenzene		<1.00	μg/L	1	1
p-Isopropyltoluene		<1.00	μg/L	1	1
4-Chlorotoluene		<1.00	μg/L	1	1
1,2-Dichlorobenzene (ortho)		<1.00	μg/L	1	1
n-Butylbenzene		<1.00	μg/L	1	1
1,2-Dibromo-3-chloropropane		<5.00	μg/L	1	5
1,2,3-Trichlorobenzene		<5.00	μg/L	1	5
1,2,4-Trichlorobenzene		<5.00	μg/L	1	5
Naphthalene		<5.00	μg/L	1	5
Hexachlorobutadiene		<5.00	μg/L	1	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		47.61	µg/L	1	50	95	88 - 112
Toluene-d8		48.85	µg/L	1	50	97	90 - 109
4-Bromofluorobenzene		48.78	µg/L	1	50	97	84 - 103

Sample: 176142 - 0143-HMW13-0701-QC

Analysis:	8260	Analytical Method:	S 8260B	QC Batch:	QC13271	Date Analyzed:	8/10/01
Analyst:	JG	Preparation Method:	E 5030B	Prep Batch:	PB11322	Date Prepared:	8/10/01

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<1.00	µg/L	1	1
Dichlorodifluoromethane		<1.00	µg/L	1	1
Chloromethane (methyl chloride)		<1.00	µg/L	1	1
Vinyl Chloride		<1.00	µg/L	1	1
Bromomethane (methyl bromide)		<5.00	µg/L	1	5
Chloroethane		<1.00	µg/L	1	1
Trichlorofluoromethane		<1.00	µg/L	1	1
Acetone		<10.0	µg/L	1	10
Iodomethane (methyl iodide)		10.3	µg/L	1	5
Carbon Disulfide		14.6	µg/L	1	1
Acrylonitrile		<1.00	µg/L	1	1
2-Butanone (MEK)		<5.00	µg/L	1	5
4-methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5
2-hexanone		<5.00	µg/L	1	5
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10
1,1-Dichloroethene		<1.00	µg/L	1	1
Methylene chloride		<5.00	µg/L	1	5
MTBE		<1.00	µg/L	1	1
trans-1,2-Dichloroethene		<1.00	µg/L	1	1
1,1-Dichloroethane		<1.00	µg/L	1	1
cis-1,2-Dichloroethene		<1.00	µg/L	1	1
2,2-Dichloropropane		<1.00	µg/L	1	1
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1
Chloroform		1.01	µg/L	1	1
1,1,1-Trichloroethane		<1.00	µg/L	1	1
1,1-Dichloropropene		<1.00	µg/L	1	1
Benzene		<1.00	µg/L	1	1
Carbon Tetrachloride		<1.00	µg/L	1	1
1,2-Dichloropropane		<1.00	µg/L	1	1
Trichloroethene (TCE)		<1.00	µg/L	1	1
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1
Bromodichloromethane		<1.00	µg/L	1	1
2-Chloroethyl vinyl ether		<5.00	µg/L	1	5
cis-1,3-Dichloropropene		<1.00	µg/L	1	1
trans-1,3-Dichloropropene		<1.00	µg/L	1	1
Toluene		<1.00	µg/L	1	1
1,1,2-Trichloroethane		<1.00	µg/L	1	1
1,3-Dichloropropane		<1.00	µg/L	1	1
Dibromochloromethane		<1.00	µg/L	1	1
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1
Tetrachloroethene (PCE)		<1.00	µg/L	1	1
Chlorobenzene		<1.00	µg/L	1	1
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1

Continued ...

... Continued Sample: 176142 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
Ethylbenzene		<1.00	µg/L	1	1
m,p-Xylene		<1.00	µg/L	1	1
Bromoform		<1.00	µg/L	1	1
Styrene		<1.00	µg/L	1	1
o-Xylene		<1.00	µg/L	1	1
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1	1
2-Chlorotoluene		<1.00	µg/L	1	1
1,2,3-Trichloropropane		<1.00	µg/L	1	1
Isopropylbenzene		<1.00	µg/L	1	1
Bromobenzene		<1.00	µg/L	1	1
n-Propylbenzene		<1.00	µg/L	1	1
1,3,5-Trimethylbenzene		<1.00	µg/L	1	1
tert-Butylbenzene		<1.00	µg/L	1	1
1,2,4-Trimethylbenzene		<1.00	µg/L	1	1
1,4-Dichlorobenzene (para)		<1.00	µg/L	1	1
sec-Butylbenzene		<1.00	µg/L	1	1
1,3-Dichlorobenzene		<1.00	µg/L	1	1
p-Isopropyltoluene		<1.00	µg/L	1	1
4-Chlorotoluene		<1.00	µg/L	1	1
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1	1
n-Butylbenzene		<1.00	µg/L	1	1
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5
Naphthalene		<5.00	µg/L	1	5
Hexachlorobutadiene		<5.00	µg/L	1	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		51.75	µg/L	1	50	103	88 - 112
Toluene-d8		49.32	µg/L	1	50	98	90 - 109
4-Bromofluorobenzene		49.74	µg/L	1	50	99	84 - 103

Sample: 176143 - 0143-HMW13-0701-QC-TB

Analysis:	8260	Analytical Method:	S 8260B	QC Batch:	QC13271	Date Analyzed:	8/10/01
Analyst:	JG	Preparation Method:	E 5030B	Prep Batch:	PB11322	Date Prepared:	8/10/01

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<1.00	µg/L	1	1
Dichlorodifluoromethane		<1.00	µg/L	1	1
Chloromethane (methyl chloride)		<1.00	µg/L	1	1
Vinyl Chloride		<1.00	µg/L	1	1
Bromomethane (methyl bromide)		<5.00	µg/L	1	5
Chloroethane		<1.00	µg/L	1	1
Trichlorofluoromethane		<1.00	µg/L	1	1
Acetone	[2]	17.1	µg/L	1	10
Iodomethane (methyl iodide)		<5.00	µg/L	1	5
Carbon Disulfide		<1.00	µg/L	1	1
Acrylonitrile		<1.00	µg/L	1	1
2-Butanone (MEK)		<5.00	µg/L	1	5

Continued ...

[2]possible lab contamination

... *Continued* Sample: 176143 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
4-methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5
2-hexanone		<5.00	µg/L	1	5
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10
1,1-Dichloroethene		<1.00	µg/L	1	1
Methylene chloride		<5.00	µg/L	1	5
MTBE		<1.00	µg/L	1	1
trans-1,2-Dichloroethene		<1.00	µg/L	1	1
1,1-Dichloroethane		<1.00	µg/L	1	1
cis-1,2-Dichloroethene		<1.00	µg/L	1	1
2,2-Dichloropropane		<1.00	µg/L	1	1
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1
Chloroform		<1.00	µg/L	1	1
1,1,1-Trichloroethane		<1.00	µg/L	1	1
1,1-Dichloropropene		<1.00	µg/L	1	1
Benzene		<1.00	µg/L	1	1
Carbon Tetrachloride		<1.00	µg/L	1	1
1,2-Dichloropropane		<1.00	µg/L	1	1
Trichloroethene (TCE)		<1.00	µg/L	1	1
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1
Bromodichloromethane		<1.00	µg/L	1	1
2-Chloroethyl vinyl ether		<5.00	µg/L	1	5
cis-1,3-Dichloropropene		<1.00	µg/L	1	1
trans-1,3-Dichloropropene		<1.00	µg/L	1	1
Toluene		<1.00	µg/L	1	1
1,1,2-Trichloroethane		<1.00	µg/L	1	1
1,3-Dichloropropane		<1.00	µg/L	1	1
Dibromochloromethane		<1.00	µg/L	1	1
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1
Tetrachloroethene (PCE)		<1.00	µg/L	1	1
Chlorobenzene		<1.00	µg/L	1	1
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1
Ethylbenzene		<1.00	µg/L	1	1
m,p-Xylene		<1.00	µg/L	1	1
Bromoform		<1.00	µg/L	1	1
Styrene		<1.00	µg/L	1	1
o-Xylene		<1.00	µg/L	1	1
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1	1
2-Chlorotoluene		<1.00	µg/L	1	1
1,2,3-Trichloropropane		<1.00	µg/L	1	1
Isopropylbenzene		<1.00	µg/L	1	1
Bromobenzene		<1.00	µg/L	1	1
n-Propylbenzene		<1.00	µg/L	1	1
1,3,5-Trimethylbenzene		<1.00	µg/L	1	1
tert-Butylbenzene		<1.00	µg/L	1	1
1,2,4-Trimethylbenzene		<1.00	µg/L	1	1
1,4-Dichlorobenzene (para)		<1.00	µg/L	1	1
sec-Butylbenzene		<1.00	µg/L	1	1
1,3-Dichlorobenzene		<1.00	µg/L	1	1
p-Isopropyltoluene		<1.00	µg/L	1	1
4-Chlorotoluene		<1.00	µg/L	1	1
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1	1
n-Butylbenzene		<1.00	µg/L	1	1
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5

Continued ...

... *Continued* Sample: 176143 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5
Naphthalene		<5.00	µg/L	1	5
Hexachlorobutadiene		<5.00	µg/L	1	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		49.84	µg/L	1	50	99	88 - 112
Toluene-d8		49.55	µg/L	1	50	99	90 - 109
4-Bromofluorobenzene		49.77	µg/L	1	50	99	84 - 103

Sample: 176144 - 0143-HMW13-0701

Analysis:	8260	Analytical Method:	S 8260B	QC Batch:	QC13271	Date Analyzed:	8/10/01
Analyst:	JG	Preparation Method:	E 5030B	Prep Batch:	PB11322	Date Prepared:	8/10/01

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<1.00	µg/L	1	1
Dichlorodifluoromethane		<1.00	µg/L	1	1
Chloromethane (methyl chloride)		<1.00	µg/L	1	1
Vinyl Chloride		<1.00	µg/L	1	1
Bromomethane (methyl bromide)		<5.00	µg/L	1	5
Chloroethane		<1.00	µg/L	1	1
Trichlorofluoromethane		<1.00	µg/L	1	1
Acetone		<10.0	µg/L	1	10
Iodomethane (methyl iodide)		<5.00	µg/L	1	5
Carbon Disulfide		1.35	µg/L	1	1
Acrylonitrile		<1.00	µg/L	1	1
2-Butanone (MEK)		<5.00	µg/L	1	5
4-methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5
2-hexanone		<5.00	µg/L	1	5
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10
1,1-Dichloroethene		<1.00	µg/L	1	1
Methylene chloride		<5.00	µg/L	1	5
MTBE		<1.00	µg/L	1	1
trans-1,2-Dichloroethene		<1.00	µg/L	1	1
1,1-Dichloroethane		<1.00	µg/L	1	1
cis-1,2-Dichloroethene		<1.00	µg/L	1	1
2,2-Dichloropropane		<1.00	µg/L	1	1
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1
Chloroform		1.22	µg/L	1	1
1,1,1-Trichloroethane		<1.00	µg/L	1	1
1,1-Dichloropropene		<1.00	µg/L	1	1
Benzene		<1.00	µg/L	1	1
Carbon Tetrachloride		<1.00	µg/L	1	1
1,2-Dichloropropane		<1.00	µg/L	1	1
Trichloroethene (TCE)		<1.00	µg/L	1	1
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1
Bromodichloromethane		<1.00	µg/L	1	1
2-Chloroethyl vinyl ether		<5.00	µg/L	1	5
cis-1,3-Dichloropropene		<1.00	µg/L	1	1
trans-1,3-Dichloropropene		<1.00	µg/L	1	1
Toluene		<1.00	µg/L	1	1

Continued ...

... Continued Sample: 176144 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
1,1,2-Trichloroethane		<1.00	µg/L	1	1
1,3-Dichloropropane		<1.00	µg/L	1	1
Dibromochloromethane		<1.00	µg/L	1	1
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1
Tetrachloroethene (PCE)		<1.00	µg/L	1	1
Chlorobenzene		<1.00	µg/L	1	1
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1
Ethylbenzene		<1.00	µg/L	1	1
m,p-Xylene		<1.00	µg/L	1	1
Bromoform		<1.00	µg/L	1	1
Styrene		<1.00	µg/L	1	1
o-Xylene		<1.00	µg/L	1	1
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1	1
2-Chlorotoluene		<1.00	µg/L	1	1
1,2,3-Trichloropropane		<1.00	µg/L	1	1
Isopropylbenzene		<1.00	µg/L	1	1
Bromobenzene		<1.00	µg/L	1	1
n-Propylbenzene		<1.00	µg/L	1	1
1,3,5-Trimethylbenzene		<1.00	µg/L	1	1
tert-Butylbenzene		<1.00	µg/L	1	1
1,2,4-Trimethylbenzene		<1.00	µg/L	1	1
1,4-Dichlorobenzene (para)		<1.00	µg/L	1	1
sec-Butylbenzene		<1.00	µg/L	1	1
1,3-Dichlorobenzene		<1.00	µg/L	1	1
p-Isopropyltoluene		<1.00	µg/L	1	1
4-Chlorotoluene		<1.00	µg/L	1	1
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1	1
n-Butylbenzene		<1.00	µg/L	1	1
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5
Naphthalene		<5.00	µg/L	1	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		50.36	µg/L	1	50	100	88 - 112
Toluene-d8		49.33	µg/L	1	50	98	90 - 109
4-Bromofluorobenzene		49.53	µg/L	1	50	99	84 - 103

Sample: 176145 - 0143-HMW13-0701-TB

Analysis:	8260	Analytical Method:	S 8260B	QC Batch:	QC13271	Date Analyzed:	8/10/01
Analyst:	JG	Preparation Method:	E 5030B	Prep Batch:	PB11322	Date Prepared:	8/10/01

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<1.00	µg/L	1	1
Dichlorodifluoromethane		<1.00	µg/L	1	1
Chloromethane (methyl chloride)		<1.00	µg/L	1	1
Vinyl Chloride		<1.00	µg/L	1	1
Bromomethane (methyl bromide)		<5.00	µg/L	1	5
Chloroethane		<1.00	µg/L	1	1
Trichlorofluoromethane		<1.00	µg/L	1	1

Continued ...

... *Continued* Sample: 176145 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
Acetone	[3]	12.6	μg/L	1	10
Iodomethane (methyl iodide)		<5.00	μg/L	1	5
Carbon Disulfide		<1.00	μg/L	1	1
Acrylonitrile		<1.00	μg/L	1	1
2-Butanone (MEK)		<5.00	μg/L	1	5
4-methyl-2-pentanone (MIBK)		<5.00	μg/L	1	5
2-hexanone		<5.00	μg/L	1	5
trans 1,4-Dichloro-2-butene		<10.0	μg/L	1	10
1,1-Dichloroethene		<1.00	μg/L	1	1
Methylene chloride		<5.00	μg/L	1	5
MTBE		<1.00	μg/L	1	1
trans-1,2-Dichloroethene		<1.00	μg/L	1	1
1,1-Dichloroethane		<1.00	μg/L	1	1
cis-1,2-Dichloroethene		<1.00	μg/L	1	1
2,2-Dichloropropane		<1.00	μg/L	1	1
1,2-Dichloroethane (EDC)		<1.00	μg/L	1	1
Chloroform		<1.00	μg/L	1	1
1,1,1-Trichloroethane		<1.00	μg/L	1	1
1,1-Dichloropropene		<1.00	μg/L	1	1
Benzene		<1.00	μg/L	1	1
Carbon Tetrachloride		<1.00	μg/L	1	1
1,2-Dichloropropane		<1.00	μg/L	1	1
Trichloroethene (TCE)		<1.00	μg/L	1	1
Dibromomethane (methylene bromide)		<1.00	μg/L	1	1
Bromodichloromethane		<1.00	μg/L	1	1
2-Chloroethyl vinyl ether		<5.00	μg/L	1	5
cis-1,3-Dichloropropene		<1.00	μg/L	1	1
trans-1,3-Dichloropropene		<1.00	μg/L	1	1
Toluene		<1.00	μg/L	1	1
1,1,2-Trichloroethane		<1.00	μg/L	1	1
1,3-Dichloropropane		<1.00	μg/L	1	1
Dibromochloromethane		<1.00	μg/L	1	1
1,2-Dibromoethane (EDB)		<1.00	μg/L	1	1
Tetrachloroethene (PCE)		<1.00	μg/L	1	1
Chlorobenzene		<1.00	μg/L	1	1
1,1,1,2-Tetrachloroethane		<1.00	μg/L	1	1
Ethylbenzene		<1.00	μg/L	1	1
m,p-Xylene		<1.00	μg/L	1	1
Bromoform		<1.00	μg/L	1	1
Styrene		<1.00	μg/L	1	1
o-Xylene		<1.00	μg/L	1	1
1,1,2,2-Tetrachloroethane		<1.00	μg/L	1	1
2-Chlorotoluene		<1.00	μg/L	1	1
1,2,3-Trichloropropane		<1.00	μg/L	1	1
Isopropylbenzene		<1.00	μg/L	1	1
Bromobenzene		<1.00	μg/L	1	1
n-Propylbenzene		<1.00	μg/L	1	1
1,3,5-Trimethylbenzene		<1.00	μg/L	1	1
tert-Butylbenzene		<1.00	μg/L	1	1
1,2,4-Trimethylbenzene		<1.00	μg/L	1	1
1,4-Dichlorobenzene (para)		<1.00	μg/L	1	1
sec-Butylbenzene		<1.00	μg/L	1	1
1,3-Dichlorobenzene		<1.00	μg/L	1	1

Continued ...

[3] possible lab contamination

... *Continued* Sample: 176145 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
p-Isopropyltoluene		<1.00	µg/L	1	1
4-Chlorotoluene		<1.00	µg/L	1	1
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1	1
n-Butylbenzene		<1.00	µg/L	1	1
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5
Naphthalene		<5.00	µg/L	1	5
Hexachlorobutadiene		<5.00	µg/L	1	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		50.95	µg/L	1	50	101	88 - 112
Toluene-d8		49	µg/L	1	50	98	90 - 109
4-Bromofluorobenzene		50.03	µg/L	1	50	100	84 - 103

Sample: 176146 - 0143-HMW39-0701-QC

Analysis:	8260	Analytical Method:	S 8260B	QC Batch:	QC13271	Date Analyzed:	8/10/01
Analyst:	JG	Preparation Method:	E 5030B	Prep Batch:	PB11322	Date Prepared:	8/10/01

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<1.00	µg/L	1	1
Dichlorodifluoromethane		<1.00	µg/L	1	1
Chloromethane (methyl chloride)		<1.00	µg/L	1	1
Vinyl Chloride		<1.00	µg/L	1	1
Bromomethane (methyl bromide)		<5.00	µg/L	1	5
Chloroethane		<1.00	µg/L	1	1
Trichlorofluoromethane		<1.00	µg/L	1	1
Acetone		<10.0	µg/L	1	10
Iodomethane (methyl iodide)		<5.00	µg/L	1	5
Carbon Disulfide		<1.00	µg/L	1	1
Acrylonitrile		<1.00	µg/L	1	1
2-Butanone (MEK)		<5.00	µg/L	1	5
4-methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5
2-hexanone		<5.00	µg/L	1	5
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10
1,1-Dichloroethene		1.27	µg/L	1	1
Methylene chloride		<5.00	µg/L	1	5
MTBE		<1.00	µg/L	1	1
trans-1,2-Dichloroethene		<1.00	µg/L	1	1
1,1-Dichloroethane		<1.00	µg/L	1	1
cis-1,2-Dichloroethene		<1.00	µg/L	1	1
2,2-Dichloropropane		<1.00	µg/L	1	1
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1
Chloroform		1.64	µg/L	1	1
1,1,1-Trichloroethane		<1.00	µg/L	1	1
1,1-Dichloropropene		<1.00	µg/L	1	1
Benzene		<1.00	µg/L	1	1
Carbon Tetrachloride		<1.00	µg/L	1	1
1,2-Dichloropropane		<1.00	µg/L	1	1
Trichloroethene (TCE)		49.8	µg/L	1	1

Continued ...

... *Continued* Sample: 176146 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1
Bromodichloromethane		<1.00	µg/L	1	1
2-Chloroethyl vinyl ether		<5.00	µg/L	1	5
cis-1,3-Dichloropropene		<1.00	µg/L	1	1
trans-1,3-Dichloropropene		<1.00	µg/L	1	1
Toluene		<1.00	µg/L	1	1
1,1,2-Trichloroethane		<1.00	µg/L	1	1
1,3-Dichloropropane		<1.00	µg/L	1	1
Dibromochloromethane		<1.00	µg/L	1	1
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1
Tetrachloroethene (PCE)		<1.00	µg/L	1	1
Chlorobenzene		<1.00	µg/L	1	1
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1
Ethylbenzene		<1.00	µg/L	1	1
m,p-Xylene		<1.00	µg/L	1	1
Bromoform		<1.00	µg/L	1	1
Styrene		<1.00	µg/L	1	1
o-Xylene		<1.00	µg/L	1	1
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1	1
2-Chlorotoluene		<1.00	µg/L	1	1
1,2,3-Trichloropropane		<1.00	µg/L	1	1
Isopropylbenzene		<1.00	µg/L	1	1
Bromobenzene		<1.00	µg/L	1	1
n-Propylbenzene		<1.00	µg/L	1	1
1,3,5-Trimethylbenzene		<1.00	µg/L	1	1
tert-Butylbenzene		<1.00	µg/L	1	1
1,2,4-Trimethylbenzene		<1.00	µg/L	1	1
1,4-Dichlorobenzene (para)		<1.00	µg/L	1	1
sec-Butylbenzene		<1.00	µg/L	1	1
1,3-Dichlorobenzene		<1.00	µg/L	1	1
p-Isopropyltoluene		<1.00	µg/L	1	1
4-Chlorotoluene		<1.00	µg/L	1	1
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1	1
n-Butylbenzene		<1.00	µg/L	1	1
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5
Naphthalene		<5.00	µg/L	1	5
Hexachlorobutadiene		<5.00	µg/L	1	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		50.62	µg/L	1	50	101	88 - 112
Toluene-d8		48.81	µg/L	1	50	97	90 - 109
4-Bromofluorobenzene		49.66	µg/L	1	50	99	84 - 103

Sample: 176147 - 0143-HMW39-0701-QC-TB

Analysis:	8260	Analytical Method:	S 8260B	QC Batch:	QC13271	Date Analyzed:	8/10/01
Analyst:	JG	Preparation Method:	E 5030B	Prep Batch:	PB11322	Date Prepared:	8/10/01

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<1.00	µg/L	1	1

Continued ...

... *Continued* Sample: 176147 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
Dichlorodifluoromethane		<1.00	μg/L	1	1
Chloromethane (methyl chloride)		<1.00	μg/L	1	1
Vinyl Chloride		<1.00	μg/L	1	1
Bromomethane (methyl bromide)		<5.00	μg/L	1	5
Chloroethane		<1.00	μg/L	1	1
Trichlorofluoromethane		<1.00	μg/L	1	1
Acetone	[4]	10.8	μg/L	1	10
Iodomethane (methyl iodide)		<5.00	μg/L	1	5
Carbon Disulfide		<1.00	μg/L	1	1
Acrylonitrile		<1.00	μg/L	1	1
2-Butanone (MEK)		<5.00	μg/L	1	5
4-methyl-2-pentanone (MIBK)		<5.00	μg/L	1	5
2-hexanone		<5.00	μg/L	1	5
trans 1,4-Dichloro-2-butene		<10.0	μg/L	1	10
1,1-Dichloroethene		<1.00	μg/L	1	1
Methylene chloride		<5.00	μg/L	1	5
MTBE		<1.00	μg/L	1	1
trans-1,2-Dichloroethene		<1.00	μg/L	1	1
1,1-Dichloroethane		<1.00	μg/L	1	1
cis-1,2-Dichloroethene		<1.00	μg/L	1	1
2,2-Dichloropropane		<1.00	μg/L	1	1
1,2-Dichloroethane (EDC)		<1.00	μg/L	1	1
Chloroform		<1.00	μg/L	1	1
1,1,1-Trichloroethane		<1.00	μg/L	1	1
1,1-Dichloropropene		<1.00	μg/L	1	1
Benzene		<1.00	μg/L	1	1
Carbon Tetrachloride		<1.00	μg/L	1	1
1,2-Dichloropropane		<1.00	μg/L	1	1
Trichloroethene (TCE)		<1.00	μg/L	1	1
Dibromomethane (methylene bromide)		<1.00	μg/L	1	1
Bromodichloromethane		<1.00	μg/L	1	1
2-Chloroethyl vinyl ether		<5.00	μg/L	1	5
cis-1,3-Dichloropropene		<1.00	μg/L	1	1
trans-1,3-Dichloropropene		<1.00	μg/L	1	1
Toluene		<1.00	μg/L	1	1
1,1,2-Trichloroethane		<1.00	μg/L	1	1
1,3-Dichloropropane		<1.00	μg/L	1	1
Dibromochloromethane		<1.00	μg/L	1	1
1,2-Dibromoethane (EDB)		<1.00	μg/L	1	1
Tetrachloroethene (PCE)		<1.00	μg/L	1	1
Chlorobenzene		<1.00	μg/L	1	1
1,1,1,2-Tetrachloroethane		<1.00	μg/L	1	1
Ethylbenzene		<1.00	μg/L	1	1
m,p-Xylene		<1.00	μg/L	1	1
Bromoform		<1.00	μg/L	1	1
Styrene		<1.00	μg/L	1	1
o-Xylene		<1.00	μg/L	1	1
1,1,2,2-Tetrachloroethane		<1.00	μg/L	1	1
2-Chlorotoluene		<1.00	μg/L	1	1
1,2,3-Trichloropropane		<1.00	μg/L	1	1
Isopropylbenzene		<1.00	μg/L	1	1
Bromobenzene		<1.00	μg/L	1	1
n-Propylbenzene		<1.00	μg/L	1	1

Continued ...

[4] possible lab contamination

... Continued Sample: 176147 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
1,3,5-Trimethylbenzene		<1.00	µg/L	1	1
tert-Butylbenzene		<1.00	µg/L	1	1
1,2,4-Trimethylbenzene		<1.00	µg/L	1	1
1,4-Dichlorobenzene (para)		<1.00	µg/L	1	1
sec-Butylbenzene		<1.00	µg/L	1	1
1,3-Dichlorobenzene		<1.00	µg/L	1	1
p-Isopropyltoluene		<1.00	µg/L	1	1
4-Chlorotoluene		<1.00	µg/L	1	1
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1	1
n-Butylbenzene		<1.00	µg/L	1	1
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5
Naphthalene		<5.00	µg/L	1	5
Hexachlorobutadiene		<5.00	µg/L	1	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		51.13	µg/L	1	50	102	88 - 112
Toluene-d8		49.09	µg/L	1	50	98	90 - 109
4-Bromofluorobenzene		49.59	µg/L	1	50	99	84 - 103

Sample: 176148 - 0143-HMW39-0701

Analysis:	8260	Analytical Method:	S 8260B	QC Batch:	QC13271	Date Analyzed:	8/10/01
Analyst:	JG	Preparation Method:	E 5030B	Prep Batch:	PB11322	Date Prepared:	8/10/01

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<1.00	µg/L	1	1
Dichlorodifluoromethane		<1.00	µg/L	1	1
Chloromethane (methyl chloride)		<1.00	µg/L	1	1
Vinyl Chloride		<1.00	µg/L	1	1
Bromomethane (methyl bromide)		<5.00	µg/L	1	5
Chloroethane		<1.00	µg/L	1	1
Trichlorofluoromethane		<1.00	µg/L	1	1
Acetone		<10.0	µg/L	1	10
Iodomethane (methyl iodide)		<5.00	µg/L	1	5
Carbon Disulfide		<1.00	µg/L	1	1
Acrylonitrile		<1.00	µg/L	1	1
2-Butanone (MEK)		<5.00	µg/L	1	5
4-methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5
2-hexanone		<5.00	µg/L	1	5
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10
1,1-Dichloroethene		1.42	µg/L	1	1
Methylene chloride		<5.00	µg/L	1	5
MTBE		<1.00	µg/L	1	1
trans-1,2-Dichloroethene		<1.00	µg/L	1	1
1,1-Dichloroethane		<1.00	µg/L	1	1
cis-1,2-Dichloroethene		<1.00	µg/L	1	1
2,2-Dichloropropane		<1.00	µg/L	1	1
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1
Chloroform		2.06	µg/L	1	1

Continued ...

... *Continued* Sample: 176148 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
1,1,1-Trichloroethane		<1.00	μg/L	1	1
1,1-Dichloropropene		<1.00	μg/L	1	1
Benzene		<1.00	μg/L	1	1
Carbon Tetrachloride		<1.00	μg/L	1	1
1,2-Dichloropropane		<1.00	μg/L	1	1
Trichloroethene (TCE)		63.5	μg/L	1	1
Dibromomethane (methylene bromide)		<1.00	μg/L	1	1
Bromodichloromethane		<1.00	μg/L	1	1
2-Chloroethyl vinyl ether		<5.00	μg/L	1	5
cis-1,3-Dichloropropene		<1.00	μg/L	1	1
trans-1,3-Dichloropropene		<1.00	μg/L	1	1
Toluene		<1.00	μg/L	1	1
1,1,2-Trichloroethane		<1.00	μg/L	1	1
1,3-Dichloropropane		<1.00	μg/L	1	1
Dibromochloromethane		<1.00	μg/L	1	1
1,2-Dibromoethane (EDB)		<1.00	μg/L	1	1
Tetrachloroethene (PCE)		<1.00	μg/L	1	1
Chlorobenzene		<1.00	μg/L	1	1
1,1,1,2-Tetrachloroethane		<1.00	μg/L	1	1
Ethylbenzene		<1.00	μg/L	1	1
m,p-Xylene		<1.00	μg/L	1	1
Bromoform		<1.00	μg/L	1	1
Styrene		<1.00	μg/L	1	1
o-Xylene		<1.00	μg/L	1	1
1,1,2,2-Tetrachloroethane		<1.00	μg/L	1	1
2-Chlorotoluene		<1.00	μg/L	1	1
1,2,3-Trichloropropane		<1.00	μg/L	1	1
Isopropylbenzene		<1.00	μg/L	1	1
Bromobenzene		<1.00	μg/L	1	1
n-Propylbenzene		<1.00	μg/L	1	1
1,3,5-Trimethylbenzene		<1.00	μg/L	1	1
tert-Butylbenzene		<1.00	μg/L	1	1
1,2,4-Trimethylbenzene		<1.00	μg/L	1	1
1,4-Dichlorobenzene (para)		<1.00	μg/L	1	1
sec-Butylbenzene		<1.00	μg/L	1	1
1,3-Dichlorobenzene		<1.00	μg/L	1	1
p-Isopropyltoluene		<1.00	μg/L	1	1
4-Chlorotoluene		<1.00	μg/L	1	1
1,2-Dichlorobenzene (ortho)		<1.00	μg/L	1	1
n-Butylbenzene		<1.00	μg/L	1	1
1,2-Dibromo-3-chloropropane		<5.00	μg/L	1	5
1,2,3-Trichlorobenzene		<5.00	μg/L	1	5
1,2,4-Trichlorobenzene		<5.00	μg/L	1	5
Naphthalene		<5.00	μg/L	1	5
Hexachlorobutadiene		<5.00	μg/L	1	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		52.28	μg/L	1	50	104	88 - 112
Toluene-d8		49.36	μg/L	1	50	98	90 - 109
4-Bromofluorobenzene		49.52	μg/L	1	50	99	84 - 103

Sample: 176149 - 0143-HMW39-0701-TB

Analysis:	8260	Analytical Method:	S 8260B	QC Batch:	QC13271	Date Analyzed:	8/10/01
Analyst:	JG	Preparation Method:	E 5030B	Prep Batch:	PB11322	Date Prepared:	8/10/01

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<1.00	µg/L	1	1
Dichlorodifluoromethane		<1.00	µg/L	1	1
Chloromethane (methyl chloride)		<1.00	µg/L	1	1
Vinyl Chloride		<1.00	µg/L	1	1
Bromomethane (methyl bromide)		<5.00	µg/L	1	5
Chloroethane		<1.00	µg/L	1	1
Trichlorofluoromethane		<1.00	µg/L	1	1
Acetone	[5]	15.2	µg/L	1	10
Iodomethane (methyl iodide)		<5.00	µg/L	1	5
Carbon Disulfide		<1.00	µg/L	1	1
Acrylonitrile		<1.00	µg/L	1	1
2-Butanone (MEK)		<5.00	µg/L	1	5
4-methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5
2-hexanone		<5.00	µg/L	1	5
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10
1,1-Dichloroethene		<1.00	µg/L	1	1
Methylene chloride		<5.00	µg/L	1	5
MTBE		<1.00	µg/L	1	1
trans-1,2-Dichloroethene		<1.00	µg/L	1	1
1,1-Dichloroethane		<1.00	µg/L	1	1
cis-1,2-Dichloroethene		<1.00	µg/L	1	1
2,2-Dichloropropane		<1.00	µg/L	1	1
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1
Chloroform		<1.00	µg/L	1	1
1,1,1-Trichloroethane		<1.00	µg/L	1	1
1,1-Dichloropropene		<1.00	µg/L	1	1
Benzene		<1.00	µg/L	1	1
Carbon Tetrachloride		<1.00	µg/L	1	1
1,2-Dichloropropane		<1.00	µg/L	1	1
Trichloroethene (TCE)		<1.00	µg/L	1	1
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1
Bromodichloromethane		<1.00	µg/L	1	1
2-Chloroethyl vinyl ether		<1.00	µg/L	1	5
cis-1,3-Dichloropropene		<1.00	µg/L	1	1
trans-1,3-Dichloropropene		<1.00	µg/L	1	1
Toluene		<1.00	µg/L	1	1
1,1,2-Trichloroethane		<1.00	µg/L	1	1
1,3-Dichloropropane		<1.00	µg/L	1	1
Dibromochloromethane		<1.00	µg/L	1	1
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1
Tetrachloroethene (PCE)		<1.00	µg/L	1	1
Chlorobenzene		<1.00	µg/L	1	1
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1
Ethylbenzene		<1.00	µg/L	1	1
m,p-Xylene		<1.00	µg/L	1	1
Bromoform		<1.00	µg/L	1	1
Styrene		<1.00	µg/L	1	1
o-Xylene		<1.00	µg/L	1	1
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1	1
2-Chlorotoluene		<1.00	µg/L	1	1

Continued ...

[5] possible lab contamination

... *Continued* Sample: 176149 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
1,2,3-Trichloropropane		<1.00	µg/L	1	1
Isopropylbenzene		<1.00	µg/L	1	1
Bromobenzene		<1.00	µg/L	1	1
n-Propylbenzene		<1.00	µg/L	1	1
1,3,5-Trimethylbenzene		<1.00	µg/L	1	1
tert-Butylbenzene		<1.00	µg/L	1	1
1,2,4-Trimethylbenzene		<1.00	µg/L	1	1
1,4-Dichlorobenzene (para)		<1.00	µg/L	1	1
sec-Butylbenzene		<1.00	µg/L	1	1
1,3-Dichlorobenzene		<1.00	µg/L	1	1
p-Isopropyltoluene		<1.00	µg/L	1	1
4-Chlorotoluene		<1.00	µg/L	1	1
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1	1
n-Butylbenzene		<1.00	µg/L	1	1
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5
Naphthalene		<5.00	µg/L	1	5
Hexachlorobutadiene		<5.00	µg/L	1	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		51.59	µg/L	1	50	103	88 - 112
Toluene-d8		48.60	µg/L	1	50	97	90 - 109
4-Bromofluorobenzene		49.35	µg/L	1	50	98	84 - 103

Sample: 176150 - 0143-HMW11-0701

Analysis:	8260	Analytical Method:	S 8260B	QC Batch:	QC13271	Date Analyzed:	8/10/01
Analyst:	JG	Preparation Method:	E 5030B	Prep Batch:	PB11322	Date Prepared:	8/10/01

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<1.00	µg/L	1	1
Dichlorodifluoromethane		<1.00	µg/L	1	1
Chloromethane (methyl chloride)		<1.00	µg/L	1	1
Vinyl Chloride		<1.00	µg/L	1	1
Bromomethane (methyl bromide)		<5.00	µg/L	1	5
Chloroethane		<1.00	µg/L	1	1
Trichlorofluoromethane		<1.00	µg/L	1	1
Acetone		<10.0	µg/L	1	10
Iodomethane (methyl iodide)		<5.00	µg/L	1	5
Carbon Disulfide		<1.00	µg/L	1	1
Acrylonitrile		<1.00	µg/L	1	1
2-Butanone (MEK)		<5.00	µg/L	1	5
4-methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5
2-hexanone		<5.00	µg/L	1	5
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10
1,1-Dichloroethene		<1.00	µg/L	1	1
Methylene chloride		<5.00	µg/L	1	5
MTBE		<1.00	µg/L	1	1
trans-1,2-Dichloroethene		<1.00	µg/L	1	1
1,1-Dichloroethane		2.33	µg/L	1	1

Continued ...

... *Continued* Sample: 176150 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
cis-1,2-Dichloroethene		<1.00	μg/L	1	1
2,2-Dichloropropane		<1.00	μg/L	1	1
1,2-Dichloroethane (EDC)		<1.00	μg/L	1	1
Chloroform		1.81	μg/L	1	1
1,1,1-Trichloroethane		<1.00	μg/L	1	1
1,1-Dichloropropene		<1.00	μg/L	1	1
Benzene		<1.00	μg/L	1	1
Carbon Tetrachloride		<1.00	μg/L	1	1
1,2-Dichloropropane		<1.00	μg/L	1	1
Trichloroethene (TCE)		51.5	μg/L	1	1
Dibromomethane (methylene bromide)		<1.00	μg/L	1	1
Bromodichloromethane		<1.00	μg/L	1	1
2-Chloroethyl vinyl ether		<5.00	μg/L	1	5
cis-1,3-Dichloropropene		<1.00	μg/L	1	1
trans-1,3-Dichloropropene		<1.00	μg/L	1	1
Toluene		<1.00	μg/L	1	1
1,1,2-Trichloroethane		<1.00	μg/L	1	1
1,3-Dichloropropane		<1.00	μg/L	1	1
Dibromochloromethane		<1.00	μg/L	1	1
1,2-Dibromoethane (EDB)		<1.00	μg/L	1	1
Tetrachloroethene (PCE)		<1.00	μg/L	1	1
Chlorobenzene		<1.00	μg/L	1	1
1,1,1,2-Tetrachloroethane		<1.00	μg/L	1	1
Ethylbenzene		<1.00	μg/L	1	1
m,p-Xylene		<1.00	μg/L	1	1
Bromoform		<1.00	μg/L	1	1
Styrene		<1.00	μg/L	1	1
o-Xylene		<1.00	μg/L	1	1
1,1,2,2 Tetrachloroethane		<1.00	μg/L	1	1
2-Chlorotoluene		<1.00	μg/L	1	1
1,2,3-Trichloropropane		<1.00	μg/L	1	1
Isopropylbenzene		<1.00	μg/L	1	1
Bromobenzene		<1.00	μg/L	1	1
n-Propylbenzene		<1.00	μg/L	1	1
1,3,5-Trimethylbenzene		<1.00	μg/L	1	1
tert-Butylbenzene		<1.00	μg/L	1	1
1,2,4-Trimethylbenzene		<1.00	μg/L	1	1
1,4-Dichlorobenzene (para)		<1.00	μg/L	1	1
sec-Butylbenzene		<1.00	μg/L	1	1
1,3-Dichlorobenzene		<1.00	μg/L	1	1
p-Isopropyltoluene		<1.00	μg/L	1	1
4-Chlorotoluene		<1.00	μg/L	1	1
1,2-Dichlorobenzene (ortho)		<1.00	μg/L	1	1
n-Butylbenzene		<1.00	μg/L	1	1
1,2-Dibromo-3-chloropropane		<5.00	μg/L	1	5
1,2,3-Trichlorobenzene		<5.00	μg/L	1	5
1,2,4-Trichlorobenzene		<5.00	μg/L	1	5
Naphthalene		<5.00	μg/L	1	5
Hexachlorobutadiene		<5.00	μg/L	1	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		52.09	μg/L	1	50	104	88 - 112
Toluene-d8		48.84	μg/L	1	50	97	90 - 109

Continued ...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene		49.31	µg/L	1	50	98	84 - 103

Sample: 176151 - 0143-HMW11-0701-TB

Analysis:	8260	Analytical Method:	S 8260B	QC Batch:	QC13271	Date Analyzed:	8/10/01
Analyst:	JG	Preparation Method:	E 5030B	Prep Batch:	PB11322	Date Prepared:	8/10/01

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<1.00	µg/L	1	1
Dichlorodifluoromethane		<1.00	µg/L	1	1
Chloromethane (methyl chloride)		<1.00	µg/L	1	1
Vinyl Chloride		<1.00	µg/L	1	1
Bromomethane (methyl bromide)		<5.00	µg/L	1	5
Chloroethane		<1.00	µg/L	1	1
Trichlorofluoromethane		<1.00	µg/L	1	1
Acetone		<10.0	µg/L	1	10
Iodomethane (methyl iodide)		<5.00	µg/L	1	5
Carbon Disulfide		<1.00	µg/L	1	1
Acrylonitrile		<1.00	µg/L	1	1
2-Butanone (MEK)		<5.00	µg/L	1	5
4-methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5
2-hexanone		<5.00	µg/L	1	5
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10
1,1-Dichloroethene		<1.00	µg/L	1	1
Methylene chloride		<5.00	µg/L	1	5
MTBE		<1.00	µg/L	1	1
trans-1,2-Dichloroethene		<1.00	µg/L	1	1
1,1 Dichloroethane		<1.00	µg/L	1	1
cis-1,2-Dichloroethene		<1.00	µg/L	1	1
2,2-Dichloropropane		<1.00	µg/L	1	1
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1
Chloroform		<1.00	µg/L	1	1
1,1,1-Trichloroethane		<1.00	µg/L	1	1
1,1-Dichloropropene		<1.00	µg/L	1	1
Benzene		<1.00	µg/L	1	1
Carbon Tetrachloride		<1.00	µg/L	1	1
1,2-Dichloropropane		<1.00	µg/L	1	1
Trichloroethene (TCE)		<1.00	µg/L	1	1
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1
Bromodichloromethane		<1.00	µg/L	1	1
2-Chloroethyl vinyl ether		<5.00	µg/L	1	5
cis-1,3-Dichloropropene		<1.00	µg/L	1	1
trans-1,3-Dichloropropene		<1.00	µg/L	1	1
Toluene		<1.00	µg/L	1	1
1,1,2-Trichloroethane		<1.00	µg/L	1	1
1,3-Dichloropropane		<1.00	µg/L	1	1
Dibromochloromethane		<1.00	µg/L	1	1
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1
Tetrachloroethene (PCE)		<1.00	µg/L	1	1
Chlorobenzene		<1.00	µg/L	1	1
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1
Ethylbenzene		<1.00	µg/L	1	1
m,p-Xylene		<1.00	µg/L	1	1
Bromoform		<1.00	µg/L	1	1

Continued ...

... *Continued* Sample: 176151 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
Styrene		<1.00	μg/L	1	1
o-Xylene		<1.00	μg/L	1	1
1,1,2,2-Tetrachloroethane		<1.00	μg/L	1	1
2-Chlorotoluene		<1.00	μg/L	1	1
1,2,3-Trichloropropane		<1.00	μg/L	1	1
Isopropylbenzene		<1.00	μg/L	1	1
Bromobenzene		<1.00	μg/L	1	1
n-Propylbenzene		<1.00	μg/L	1	1
1,3,5-Trimethylbenzene		<1.00	μg/L	1	1
tert-Butylbenzene		<1.00	μg/L	1	1
1,2,4-Trimethylbenzene		<1.00	μg/L	1	1
1,4-Dichlorobenzene (para)		<1.00	μg/L	1	1
sec-Butylbenzene		<1.00	μg/L	1	1
1,3-Dichlorobenzene		<1.00	μg/L	1	1
p-Isopropyltoluene		<1.00	μg/L	1	1
4-Chlorotoluene		<1.00	μg/L	1	1
1,2-Dichlorobenzene (ortho)		<1.00	μg/L	1	1
n-Butylbenzene		<1.00	μg/L	1	1
1,2-Dibromo-3-chloropropane		<5.00	μg/L	1	5
1,2,3-Trichlorobenzene		<5.00	μg/L	1	5
1,2,4-Trichlorobenzene		<5.00	μg/L	1	5
Naphthalene		<5.00	μg/L	1	5
Hexachlorobutadiene		<5.00	μg/L	1	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		52.99	μg/L	1	50	105	88 - 112
Toluene-d8		48.24	μg/L	1	50	96	90 - 109
4-Bromofluorobenzene		49.49	μg/L	1	50	98	84 - 103

Sample: 176212 - 0143-HMW38-0801

Analysis:	8260	Analytical Method:	S 8260B	QC Batch:	QC13360	Date Analyzed:	8/13/01
Analyst:	JG	Preparation Method:	E 5030B	Prep Batch:	PB11396	Date Prepared:	8/13/01

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<1.00	μg/L	1	1
Dichlorodifluoromethane		<1.00	μg/L	1	1
Chloromethane (methyl chloride)		<1.00	μg/L	1	1
Vinyl Chloride		<1.00	μg/L	1	1
Bromomethane (methyl bromide)		<5.00	μg/L	1	5
Chloroethane		<1.00	μg/L	1	1
Trichlorofluoromethane		<1.00	μg/L	1	1
Acetone		<10.0	μg/L	1	10
Iodomethane (methyl iodide)		<5.00	μg/L	1	5
Carbon Disulfide		<1.00	μg/L	1	1
Acrylonitrile		<1.00	μg/L	1	1
2-Butanone (MEK)		<5.00	μg/L	1	5
4-methyl-2-pentanone (MIBK)		<5.00	μg/L	1	5
2-hexanone		<5.00	μg/L	1	5
trans 1,4-Dichloro-2-butene		<10.0	μg/L	1	10
1,1-Dichloroethene		<1.00	μg/L	1	1

Continued ...

... *Continued* Sample: 176212 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
Methylene chloride		<5.00	μg/L	1	5
MTBE		<1.00	μg/L	1	1
trans-1,2-Dichloroethene		<1.00	μg/L	1	1
1,1-Dichloroethane		<1.00	μg/L	1	1
cis-1,2-Dichloroethene		<1.00	μg/L	1	1
2,2-Dichloropropane		<1.00	μg/L	1	1
1,2-Dichloroethane (EDC)		<1.00	μg/L	1	1
Chloroform		<1.00	μg/L	1	1
1,1,1-Trichloroethane		<1.00	μg/L	1	1
1,1-Dichloropropene		<1.00	μg/L	1	1
Benzene		<1.00	μg/L	1	1
Carbon Tetrachloride		<1.00	μg/L	1	1
1,2-Dichloropropane		<1.00	μg/L	1	1
Trichloroethene (TCE)		14.1	μg/L	1	1
Dibromomethane (methylene bromide)		<1.00	μg/L	1	1
Bromodichloromethane		<1.00	μg/L	1	1
2-Chloroethyl vinyl ether		<5.00	μg/L	1	5
cis-1,3-Dichloropropene		<1.00	μg/L	1	1
trans-1,3-Dichloropropene		<1.00	μg/L	1	1
Toluene		<1.00	μg/L	1	1
1,1,2-Trichloroethane		<1.00	μg/L	1	1
1,3-Dichloropropane		<1.00	μg/L	1	1
Dibromochloromethane		<1.00	μg/L	1	1
1,2-Dibromoethane (EDB)		<1.00	μg/L	1	1
Tetrachloroethene (PCE)		<1.00	μg/L	1	1
Chlorobenzene		<1.00	μg/L	1	1
1,1,1,2-Tetrachloroethane		<1.00	μg/L	1	1
Ethylbenzene		<1.00	μg/L	1	1
m,p-Xylene		<1.00	μg/L	1	1
Bromoform		<1.00	μg/L	1	1
Styrene		<1.00	μg/L	1	1
o-Xylene		<1.00	μg/L	1	1
1,1,2,2-Tetrachloroethane		<1.00	μg/L	1	1
2-Chlorotoluene		<1.00	μg/L	1	1
1,2,3-Trichloropropane		<1.00	μg/L	1	1
Isopropylbenzene		<1.00	μg/L	1	1
Bromobenzene		<1.00	μg/L	1	1
n-Propylbenzene		<1.00	μg/L	1	1
1,3,5-Trimethylbenzene		<1.00	μg/L	1	1
tert-Butylbenzene		<1.00	μg/L	1	1
1,2,4-Trimethylbenzene		<1.00	μg/L	1	1
1,4-Dichlorobenzene (para)		<1.00	μg/L	1	1
sec-Butylbenzene		<1.00	μg/L	1	1
1,3-Dichlorobenzene		<1.00	μg/L	1	1
p-Isopropyltoluene		<1.00	μg/L	1	1
4-Chlorotoluene		<1.00	μg/L	1	1
1,2-Dichlorobenzene (ortho)		<1.00	μg/L	1	1
n-Butylbenzene		<1.00	μg/L	1	1
1,2-Dibromo-3-chloropropane		<5.00	μg/L	1	5
1,2,3-Trichlorobenzene		<5.00	μg/L	1	5
1,2,4-Trichlorobenzene		<5.00	μg/L	1	5
Naphthalene		<5.00	μg/L	1	5
Hexachlorobutadiene		<5.00	μg/L	1	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		51.96	µg/L	1	50	103	88 - 112
Toluene-d8		48.95	µg/L	1	50	97	90 - 109
4-Bromofluorobenzene		49.19	µg/L	1	50	98	84 - 103

Sample: 176213 - 0143-HMW38-0801TB

Analysis:	8260	Analytical Method:	S 8260B	QC Batch:	QC13360	Date Analyzed:	8/13/01
Analyst:	JG	Preparation Method:	E 5030B	Prep Batch:	PB11396	Date Prepared:	8/13/01

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<1.00	µg/L	1	1
Dichlorodifluoromethane		<1.00	µg/L	1	1
Chloromethane (methyl chloride)		<1.00	µg/L	1	1
Vinyl Chloride		<1.00	µg/L	1	1
Bromomethane (methyl bromide)		<5.00	µg/L	1	5
Chloroethane		<1.00	µg/L	1	1
Trichlorofluoromethane		<1.00	µg/L	1	1
Acetone		<10.0	µg/L	1	10
Iodomethane (methyl iodide)		<5.00	µg/L	1	5
Carbon Disulfide		<1.00	µg/L	1	1
Acrylonitrile		<1.00	µg/L	1	1
2-Butanone (MEK)		<5.00	µg/L	1	5
4-methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5
2-hexanone		<5.00	µg/L	1	5
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10
1,1-Dichloroethene		<1.00	µg/L	1	1
Methylene chloride		<5.00	µg/L	1	5
MTBE		<1.00	µg/L	1	1
trans-1,2-Dichloroethene		<1.00	µg/L	1	1
1,1-Dichloroethane		<1.00	µg/L	1	1
cis-1,2-Dichloroethene		<1.00	µg/L	1	1
2,2-Dichloropropane		<1.00	µg/L	1	1
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1
Chloroform		<1.00	µg/L	1	1
1,1,1-Trichloroethane		<1.00	µg/L	1	1
1,1-Dichloropropene		<1.00	µg/L	1	1
Benzene		<1.00	µg/L	1	1
Carbon Tetrachloride		<1.00	µg/L	1	1
1,2-Dichloropropane		<1.00	µg/L	1	1
Trichloroethene (TCE)		<1.00	µg/L	1	1
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1
Bromodichloromethane		<1.00	µg/L	1	1
2-Chloroethyl vinyl ether		<5.00	µg/L	1	5
cis-1,3-Dichloropropene		<1.00	µg/L	1	1
trans-1,3-Dichloropropene		<1.00	µg/L	1	1
Toluene		<1.00	µg/L	1	1
1,1,2-Trichloroethane		<1.00	µg/L	1	1
1,3-Dichloropropane		<1.00	µg/L	1	1
Dibromochloromethane		<1.00	µg/L	1	1
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1
Tetrachloroethene (PCE)		<1.00	µg/L	1	1
Chlorobenzene		<1.00	µg/L	1	1
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1

Continued ...

... *Continued* Sample: 176213 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
Ethylbenzene		<1.00	µg/L	1	1
m,p-Xylene		<1.00	µg/L	1	1
Bromoform		<1.00	µg/L	1	1
Styrene		<1.00	µg/L	1	1
o-Xylene		<1.00	µg/L	1	1
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1	1
2-Chlorotoluene		<1.00	µg/L	1	1
1,2,3-Trichloropropane		<1.00	µg/L	1	1
Isopropylbenzene		<1.00	µg/L	1	1
Bromobenzene		<1.00	µg/L	1	1
n-Propylbenzene		<1.00	µg/L	1	1
1,3,5-Trimethylbenzene		<1.00	µg/L	1	1
tert-Butylbenzene		<1.00	µg/L	1	1
1,2,4-Trimethylbenzene		<1.00	µg/L	1	1
1,4-Dichlorobenzene (para)		<1.00	µg/L	1	1
sec-Butylbenzene		<1.00	µg/L	1	1
1,3-Dichlorobenzene		<1.00	µg/L	1	1
p-Isopropyltoluene		<1.00	µg/L	1	1
4-Chlorotoluene		<1.00	µg/L	1	1
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1	1
n-Butylbenzene		<1.00	µg/L	1	1
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5
Naphthalene		<5.00	µg/L	1	5
Hexachlorobutadiene		<5.00	µg/L	1	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		52.91	µg/L	1	50	105	88 - 112
Toluene-d8		48.88	µg/L	1	50	97	90 - 109
4-Bromofluorobenzene		49.88	µg/L	1	50	99	84 - 103

Sample: 176214 - 0145-HMW41-0801

Analysis:	8260	Analytical Method:	S 8260B	QC Batch:	QC13361	Date Analyzed:	8/13/01
Analyst:	JG	Preparation Method:	E 5030B	Prep Batch:	PB11396	Date Prepared:	8/13/01

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<5.00	µg/L	5	1
Dichlorodifluoromethane		<5.00	µg/L	5	1
Chloromethane (methyl chloride)		<5.00	µg/L	5	1
Vinyl Chloride		<5.00	µg/L	5	1
Bromomethane (methyl bromide)		<25.0	µg/L	5	5
Chloroethane		<5.00	µg/L	5	1
Trichlorofluoromethane		<5.00	µg/L	5	1
Acetone		<50.0	µg/L	5	10
Iodomethane (methyl iodide)		<25.0	µg/L	5	5
Carbon Disulfide		<5.00	µg/L	5	1
Acrylonitrile		<5.00	µg/L	5	1
2-Butanone (MEK)		<25.0	µg/L	5	5
4-methyl-2-pentanone (MIBK)		<25.0	µg/L	5	5

Continued ...

... *Continued* Sample: 176214 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
2-hexanone		<25.0	μg/L	5	5
trans 1,4-Dichloro-2-butene		<50.0	μg/L	5	10
1,1-Dichloroethene		<5.00	μg/L	5	1
Methylene chloride		<25.0	μg/L	5	5
MTBE		<5.00	μg/L	5	1
trans-1,2-Dichloroethene		<5.00	μg/L	5	1
1,1-Dichloroethane		<5.00	μg/L	5	1
cis-1,2-Dichloroethene		<5.00	μg/L	5	1
2,2-Dichloropropane		<5.00	μg/L	5	1
1,2-Dichloroethane (EDC)		<5.00	μg/L	5	1
Chloroform		<5.00	μg/L	5	1
1,1,1-Trichloroethane		<5.00	μg/L	5	1
1,1-Dichloropropene		<5.00	μg/L	5	1
Benzene		<5.00	μg/L	5	1
Carbon Tetrachloride		<5.00	μg/L	5	1
1,2-Dichloropropane		<5.00	μg/L	5	1
Trichloroethene (TCE)		269	μg/L	5	1
Dibromomethane (methylene bromide)		<5.00	μg/L	5	1
Bromodichloromethane		<5.00	μg/L	5	1
2-Chloroethyl vinyl ether		<25.0	μg/L	5	5
cis-1,3-Dichloropropene		<5.00	μg/L	5	1
trans-1,3-Dichloropropene		<5.00	μg/L	5	1
Toluene		<5.00	μg/L	5	1
1,1,2-Trichloroethane		<5.00	μg/L	5	1
1,3-Dichloropropane		<5.00	μg/L	5	1
Dibromochloromethane		<5.00	μg/L	5	1
1,2-Dibromoethane (EDB)		<5.00	μg/L	5	1
Tetrachloroethene (PCE)		<5.00	μg/L	5	1
Chlorobenzene		<5.00	μg/L	5	1
1,1,1,2-Tetrachloroethane		<5.00	μg/L	5	1
Ethylbenzene		<5.00	μg/L	5	1
m,p-Xylene		<5.00	μg/L	5	1
Bromoform		<5.00	μg/L	5	1
Styrene		<5.00	μg/L	5	1
o-Xylene		<5.00	μg/L	5	1
1,1,2,2-Tetrachloroethane		<5.00	μg/L	5	1
2-Chlorotoluene		<5.00	μg/L	5	1
1,2,3-Trichloropropane		<5.00	μg/L	5	1
Isopropylbenzene		<5.00	μg/L	5	1
Bromobenzene		<5.00	μg/L	5	1
n-Propylbenzene		<5.00	μg/L	5	1
1,3,5-Trimethylbenzene		<5.00	μg/L	5	1
tert-Butylbenzene		<5.00	μg/L	5	1
1,2,4-Trimethylbenzene		<5.00	μg/L	5	1
1,4-Dichlorobenzene (para)		<5.00	μg/L	5	1
sec-Butylbenzene		<5.00	μg/L	5	1
1,3-Dichlorobenzene		<5.00	μg/L	5	1
p-Isopropyltoluene		<5.00	μg/L	5	1
4-Chlorotoluene		<5.00	μg/L	5	1
1,2-Dichlorobenzene (ortho)		<5.00	μg/L	5	1
n-Butylbenzene		<5.00	μg/L	5	1
1,2-Dibromo-3-chloropropane		<25.0	μg/L	5	5
1,2,3-Trichlorobenzene		<25.0	μg/L	5	5
1,2,4-Trichlorobenzene		<25.0	μg/L	5	5

Continued ...

... *Continued* Sample: 176214 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
Naphthalene		<25.0	µg/L	5	5
Hexachlorobutadiene		<25.0	µg/L	5	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		53.44	µg/L	1	50	106	88 - 112
Toluene-d8		47.99	µg/L	1	50	95	90 - 109
4-Bromofluorobenzene		49.37	µg/L	1	50	98	84 - 103

Sample: 176215 - 0145-HMW41-0801-TB

Analysis:	8260	Analytical Method:	S 8260B	QC Batch:	QC13360	Date Analyzed:	8/13/01
Analyst:	JG	Preparation Method:	E 5030B	Prep Batch:	PB11396	Date Prepared:	8/13/01

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<1.00	µg/L	1	1
Dichlorodifluoromethane		<1.00	µg/L	1	1
Chloromethane (methyl chloride)		<1.00	µg/L	1	1
Vinyl Chloride		<1.00	µg/L	1	1
Bromomethane (methyl bromide)		<5.00	µg/L	1	5
Chloroethane		<1.00	µg/L	1	1
Trichlorofluoromethane		<1.00	µg/L	1	1
Acetone		<10.0	µg/L	1	10
Iodomethane (methyl iodide)		<5.00	µg/L	1	5
Carbon Disulfide		<1.00	µg/L	1	1
Acrylonitrile		<1.00	µg/L	1	1
2-Butanone (MEK)		<5.00	µg/L	1	5
4-methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5
2-hexanone		<5.00	µg/L	1	5
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10
1,1-Dichloroethene		<1.00	µg/L	1	1
Methylene chloride		<5.00	µg/L	1	5
MTBE		<1.00	µg/L	1	1
trans-1,2-Dichloroethene		<1.00	µg/L	1	1
1,1-Dichloroethane		<1.00	µg/L	1	1
cis-1,2-Dichloroethene		<1.00	µg/L	1	1
2,2-Dichloropropane		<1.00	µg/L	1	1
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1
Chloroform		<1.00	µg/L	1	1
1,1,1-Trichloroethane		<1.00	µg/L	1	1
1,1-Dichloropropene		<1.00	µg/L	1	1
Benzene		<1.00	µg/L	1	1
Carbon Tetrachloride		<1.00	µg/L	1	1
1,2-Dichloropropane		<1.00	µg/L	1	1
Trichloroethene (TCE)		<1.00	µg/L	1	1
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1
Bromodichloromethane		<1.00	µg/L	1	1
2-Chloroethyl vinyl ether		<5.00	µg/L	1	5
cis-1,3-Dichloropropene		<1.00	µg/L	1	1
trans-1,3-Dichloropropene		<1.00	µg/L	1	1
Toluene		<1.00	µg/L	1	1
1,1,2-Trichloroethane		<1.00	µg/L	1	1

Continued ...

... Continued Sample: 176215 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
1,3-Dichloropropane		<1.00	µg/L	1	1
Dibromochloromethane		<1.00	µg/L	1	1
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1
Tetrachloroethene (PCE)		<1.00	µg/L	1	1
Chlorobenzene		<1.00	µg/L	1	1
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1
Ethylbenzene		<1.00	µg/L	1	1
m,p-Xylene		<1.00	µg/L	1	1
Bromoform		<1.00	µg/L	1	1
Styrene		<1.00	µg/L	1	1
o-Xylene		<1.00	µg/L	1	1
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1	1
2-Chlorotoluene		<1.00	µg/L	1	1
1,2,3-Trichloropropane		<1.00	µg/L	1	1
Isopropylbenzene		<1.00	µg/L	1	1
Bromobenzene		<1.00	µg/L	1	1
n-Propylbenzene		<1.00	µg/L	1	1
1,3,5-Trimethylbenzene		<1.00	µg/L	1	1
tert-Butylbenzene		<1.00	µg/L	1	1
1,2,4-Trimethylbenzene		<1.00	µg/L	1	1
1,4-Dichlorobenzene (para)		<1.00	µg/L	1	1
sec-Butylbenzene		<1.00	µg/L	1	1
1,3-Dichlorobenzene		<1.00	µg/L	1	1
p-Isopropyltoluene		<1.00	µg/L	1	1
4-Chlorotoluene		<1.00	µg/L	1	1
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1	1
n-Butylbenzene		<1.00	µg/L	1	1
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5
Naphthalene		<5.00	µg/L	1	5
Hexachlorobutadiene		<5.00	µg/L	1	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		52.63	µg/L	1	50	105	88 - 112
Toluene-d8		48.33	µg/L	1	50	96	90 - 109
4-Bromofluorobenzene		49.46	µg/L	1	50	98	84 - 103

Sample: 176216 - 0143-HMW37-0801

Analysis:	8260	Analytical Method:	S 8260B	QC Batch:	QC13360	Date Analyzed:	8/13/01
Analyst:	JG	Preparation Method:	E 5030B	Prep Batch:	PB11396	Date Prepared:	8/13/01

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<1.00	µg/L	1	1
Dichlorodifluoromethane		<1.00	µg/L	1	1
Chloromethane (methyl chloride)		<1.00	µg/L	1	1
Vinyl Chloride		<1.00	µg/L	1	1
Bromomethane (methyl bromide)		<5.00	µg/L	1	5
Chloroethane		<1.00	µg/L	1	1
Trichlorofluoromethane		<1.00	µg/L	1	1

Continued ...

... *Continued* Sample: 176216 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
Acetone		<10.0	μg/L	1	10
Iodomethane (methyl iodide)		<5.00	μg/L	1	5
Carbon Disulfide		<1.00	μg/L	1	1
Acrylonitrile		<1.00	μg/L	1	1
2-Butanone (MEK)		<5.00	μg/L	1	5
4-methyl-2-pentanone (MIBK)		<5.00	μg/L	1	5
2-hexanone		<5.00	μg/L	1	5
trans 1,4-Dichloro-2-butene		<10.0	μg/L	1	10
1,1-Dichloroethene		<1.00	μg/L	1	1
Methylene chloride		<5.00	μg/L	1	5
MTBE		<1.00	μg/L	1	1
trans-1,2-Dichloroethene		<1.00	μg/L	1	1
1,1-Dichloroethane		<1.00	μg/L	1	1
cis-1,2-Dichloroethene		<1.00	μg/L	1	1
2,2-Dichloropropane		<1.00	μg/L	1	1
1,2-Dichloroethane (EDC)		<1.00	μg/L	1	1
Chloroform		<1.00	μg/L	1	1
1,1,1-Trichloroethane		<1.00	μg/L	1	1
1,1-Dichloropropene		<1.00	μg/L	1	1
Benzene		<1.00	μg/L	1	1
Carbon Tetrachloride		<1.00	μg/L	1	1
1,2-Dichloropropane		<1.00	μg/L	1	1
Trichloroethene (TCE)		<1.00	μg/L	1	1
Dibromomethane (methylene bromide)		<1.00	μg/L	1	1
Bromodichloromethane		<1.00	μg/L	1	1
2-Chloroethyl vinyl ether		<5.00	μg/L	1	5
cis-1,3-Dichloropropene		<1.00	μg/L	1	1
trans-1,3-Dichloropropene		<1.00	μg/L	1	1
Toluene		<1.00	μg/L	1	1
1,1,2-Trichloroethane		<1.00	μg/L	1	1
1,3-Dichloropropane		<1.00	μg/L	1	1
Dibromochloromethane		<1.00	μg/L	1	1
1,2-Dibromoethane (EDB)		<1.00	μg/L	1	1
Tetrachloroethene (PCE)		<1.00	μg/L	1	1
Chlorobenzene		<1.00	μg/L	1	1
1,1,1,2-Tetrachloroethane		<1.00	μg/L	1	1
Ethylbenzene		<1.00	μg/L	1	1
m,p-Xylene		<1.00	μg/L	1	1
Bromoform		<1.00	μg/L	1	1
Styrene		<1.00	μg/L	1	1
o-Xylene		<1.00	μg/L	1	1
1,1,2,2-Tetrachloroethane		<1.00	μg/L	1	1
2-Chlorotoluene		<1.00	μg/L	1	1
1,2,3-Trichloropropane		<1.00	μg/L	1	1
Isopropylbenzene		<1.00	μg/L	1	1
Bromobenzene		<1.00	μg/L	1	1
n-Propylbenzene		<1.00	μg/L	1	1
1,3,5-Trimethylbenzene		<1.00	μg/L	1	1
tert-Butylbenzene		<1.00	μg/L	1	1
1,2,4-Trimethylbenzene		<1.00	μg/L	1	1
1,4-Dichlorobenzene (para)		<1.00	μg/L	1	1
sec-Butylbenzene		<1.00	μg/L	1	1
1,3-Dichlorobenzene		<1.00	μg/L	1	1
p-Isopropyltoluene		<1.00	μg/L	1	1

Continued ...

... *Continued* Sample: 176216 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
4-Chlorotoluene		<1.00	μg/L	1	1
1,2-Dichlorobenzene (ortho)		<1.00	μg/L	1	1
n-Butylbenzene		<1.00	μg/L	1	1
1,2-Dibromo-3-chloropropane		<5.00	μg/L	1	5
1,2,3-Trichlorobenzene		<5.00	μg/L	1	5
1,2,4-Trichlorobenzene		<5.00	μg/L	1	5
Naphthalene		<5.00	μg/L	1	5
Hexachlorobutadiene		<5.00	μg/L	1	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		52.44	μg/L	1	50	104	88 - 112
Toluene-d8		48.70	μg/L	1	50	97	90 - 109
4-Bromofluorobenzene		49.25	μg/L	1	50	98	84 - 103

Sample: 176217 - 0143-HMW37-0801-TB

Analysis:	8260	Analytical Method:	S 8260B	QC Batch:	QC13360	Date Analyzed:	8/13/01
Analyst:	JG	Preparation Method:	E 5030B	Prep Batch:	PB11396	Date Prepared:	8/13/01

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<1.00	μg/L	1	1
Dichlorodifluoromethane		<1.00	μg/L	1	1
Chloromethane (methyl chloride)		<1.00	μg/L	1	1
Vinyl Chloride		<1.00	μg/L	1	1
Bromomethane (methyl bromide)		<5.00	μg/L	1	5
Chloroethane		<1.00	μg/L	1	1
Trichlorofluoromethane		<1.00	μg/L	1	1
Acetone	[6]	10.7	μg/L	1	10
Iodomethane (methyl iodide)		<5.00	μg/L	1	5
Carbon Disulfide		<1.00	μg/L	1	1
Acrylonitrile		<1.00	μg/L	1	1
2-Butanone (MEK)		<5.00	μg/L	1	5
4-methyl-2-pentanone (MIBK)		<5.00	μg/L	1	5
2-hexanone		<5.00	μg/L	1	5
trans 1,4-Dichloro-2-butene		<10.0	μg/L	1	10
1,1-Dichloroethene		<1.00	μg/L	1	1
Methylene chloride		<5.00	μg/L	1	5
MTBE		<1.00	μg/L	1	1
trans-1,2-Dichloroethene		<1.00	μg/L	1	1
1,1-Dichloroethane		<1.00	μg/L	1	1
cis-1,2-Dichloroethene		<1.00	μg/L	1	1
2,2-Dichloropropane		<1.00	μg/L	1	1
1,2-Dichloroethane (EDC)		<1.00	μg/L	1	1
Chloroform		<1.00	μg/L	1	1
1,1,1-Trichloroethane		<1.00	μg/L	1	1
1,1-Dichloropropene		<1.00	μg/L	1	1
Benzene		<1.00	μg/L	1	1
Carbon Tetrachloride		<1.00	μg/L	1	1
1,2-Dichloropropane		<1.00	μg/L	1	1
Trichloroethene (TCE)		<1.00	μg/L	1	1

Continued ...

[6] possible lab contamination

... *Continued* Sample: 176217 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1
Bromodichloromethane		<1.00	µg/L	1	1
2-Chloroethyl vinyl ether		<5.00	µg/L	1	5
cis-1,3-Dichloropropene		<1.00	µg/L	1	1
trans-1,3-Dichloropropene		<1.00	µg/L	1	1
Toluene		1.47	µg/L	1	1
1,1,2-Trichloroethane		<1.00	µg/L	1	1
1,3-Dichloropropane		<1.00	µg/L	1	1
Dibromochloromethane		<1.00	µg/L	1	1
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1
Tetrachloroethene (PCE)		<1.00	µg/L	1	1
Chlorobenzene		<1.00	µg/L	1	1
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1
Ethylbenzene		<1.00	µg/L	1	1
m,p-Xylene		<1.00	µg/L	1	1
Bromoform		<1.00	µg/L	1	1
Styrene		<1.00	µg/L	1	1
o-Xylene		<1.00	µg/L	1	1
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1	1
2-Chlorotoluene		<1.00	µg/L	1	1
1,2,3-Trichloropropane		<1.00	µg/L	1	1
Isopropylbenzene		<1.00	µg/L	1	1
Bromobenzene		<1.00	µg/L	1	1
n-Propylbenzene		<1.00	µg/L	1	1
1,3,5-Trimethylbenzene		<1.00	µg/L	1	1
tert-Butylbenzene		<1.00	µg/L	1	1
1,2,4-Trimethylbenzene		<1.00	µg/L	1	1
1,4-Dichlorobenzene (para)		<1.00	µg/L	1	1
sec-Butylbenzene		<1.00	µg/L	1	1
1,3-Dichlorobenzene		<1.00	µg/L	1	1
p-Isopropyltoluene		<1.00	µg/L	1	1
4-Chlorotoluene		<1.00	µg/L	1	1
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1	1
n-Butylbenzene		<1.00	µg/L	1	1
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5
Naphthalene		<5.00	µg/L	1	5
Hexachlorobutadiene		<5.00	µg/L	1	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		52.74	µg/L	1	50	105	88 - 112
Toluene-d8		48.43	µg/L	1	50	96	90 - 109
4-Bromofluorobenzene		49.05	µg/L	1	50	98	84 - 103

Sample: 176347 - 0143-HMW40-0801

Analysis:	8260	Analytical Method:	S 8260B	QC Batch:	QC13360	Date Analyzed:	8/13/01
Analyst:	JG	Preparation Method:	E 5030B	Prep Batch:	PB11396	Date Prepared:	8/13/01

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<1.00	µg/L	1	1

Continued ...

... *Continued* Sample: 176347 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
Dichlorodifluoromethane		<1.00	μg/L	1	1
Chloromethane (methyl chloride)		<1.00	μg/L	1	1
Vinyl Chloride		<1.00	μg/L	1	1
Bromomethane (methyl bromide)		<5.00	μg/L	1	5
Chloroethane		<1.00	μg/L	1	1
Trichlorofluoromethane		<1.00	μg/L	1	1
Acetone		<10.0	μg/L	1	10
Iodomethane (methyl iodide)		<5.00	μg/L	1	5
Carbon Disulfide		<1.00	μg/L	1	1
Acrylonitrile		<1.00	μg/L	1	1
2-Butanone (MEK)		<5.00	μg/L	1	5
4-methyl-2-pentanone (MIBK)		<5.00	μg/L	1	5
2-hexanone		<5.00	μg/L	1	5
trans 1,4-Dichloro-2-butene		<10.0	μg/L	1	10
1,1-Dichloroethene		<1.00	μg/L	1	1
Methylene chloride		<5.00	μg/L	1	5
MTBE		<1.00	μg/L	1	1
trans-1,2-Dichloroethene		<1.00	μg/L	1	1
1,1-Dichloroethane		<1.00	μg/L	1	1
cis-1,2-Dichloroethene		<1.00	μg/L	1	1
2,2-Dichloropropane		<1.00	μg/L	1	1
1,2-Dichloroethane (EDC)		<1.00	μg/L	1	1
Chloroform		<1.00	μg/L	1	1
1,1,1-Trichloroethane		<1.00	μg/L	1	1
1,1-Dichloropropene		<1.00	μg/L	1	1
Benzene		<1.00	μg/L	1	1
Carbon Tetrachloride		<1.00	μg/L	1	1
1,2-Dichloropropane		<1.00	μg/L	1	1
Trichloroethene (TCE)		<1.00	μg/L	1	1
Dibromomethane (methylene bromide)		<1.00	μg/L	1	1
Bromodichloromethane		<1.00	μg/L	1	1
2-Chloroethyl vinyl ether		<5.00	μg/L	1	5
cis-1,3-Dichloropropene		<1.00	μg/L	1	1
trans-1,3-Dichloropropene		<1.00	μg/L	1	1
Toluene		<1.00	μg/L	1	1
1,1,2-Trichloroethane		<1.00	μg/L	1	1
1,3-Dichloropropane		<1.00	μg/L	1	1
Dibromochloromethane		<1.00	μg/L	1	1
1,2-Dibromoethane (EDB)		<1.00	μg/L	1	1
Tetrachloroethene (PCE)		<1.00	μg/L	1	1
Chlorobenzene		<1.00	μg/L	1	1
1,1,1,2-Tetrachloroethane		<1.00	μg/L	1	1
Ethylbenzene		<1.00	μg/L	1	1
m,p-Xylene		<1.00	μg/L	1	1
Bromoform		<1.00	μg/L	1	1
Styrene		<1.00	μg/L	1	1
o-Xylene		<1.00	μg/L	1	1
1,1,2,2-Tetrachloroethane		<1.00	μg/L	1	1
2-Chlorotoluene		<1.00	μg/L	1	1
1,2,3-Trichloropropane		<1.00	μg/L	1	1
Isopropylbenzene		<1.00	μg/L	1	1
Bromobenzene		<1.00	μg/L	1	1
n-Propylbenzene		<1.00	μg/L	1	1
1,3,5-Trimethylbenzene		<1.00	μg/L	1	1

Continued ...

... *Continued* Sample: 176347 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
tert-Butylbenzene		<1.00	μg/L	1	1
1,2,4-Trimethylbenzene		<1.00	μg/L	1	1
1,4-Dichlorobenzene (para)		<1.00	μg/L	1	1
sec-Butylbenzene		<1.00	μg/L	1	1
1,3-Dichlorobenzene		<1.00	μg/L	1	1
p-Isopropyltoluene		<1.00	μg/L	1	1
4-Chlorotoluene		<1.00	μg/L	1	1
1,2-Dichlorobenzene (ortho)		<1.00	μg/L	1	1
n-Butylbenzene		<1.00	μg/L	1	1
1,2-Dibromo-3-chloropropane		<5.00	μg/L	1	5
1,2,3-Trichlorobenzene		<5.00	μg/L	1	5
1,2,4-Trichlorobenzene		<5.00	μg/L	1	5
Naphthalene		<5.00	μg/L	1	5
Hexachlorobutadiene		<5.00	μg/L	1	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		53.43	μg/L	1	50	106	88 112
Toluene-d8		48.74	μg/L	1	50	97	90 - 109
4-Bromofluorobenzene		49.20	μg/L	1	50	98	84 - 103

Sample: 176348 - 0143-HMW40-0801-TB

Analysis:	8260	Analytical Method:	S 8260B	QC Batch:	QC13360	Date Analyzed:	8/13/01
Analyst:	JG	Preparation Method:	E 5030B	Prep Batch:	PB11396	Date Prepared:	8/13/01

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<1.00	μg/L	1	1
Dichlorodifluoromethane		<1.00	μg/L	1	1
Chloromethane (methyl chloride)		<1.00	μg/L	1	1
Vinyl Chloride		<1.00	μg/L	1	1
Bromomethane (methyl bromide)		<5.00	μg/L	1	5
Chloroethane		<1.00	μg/L	1	1
Trichlorofluoromethane		<1.00	μg/L	1	1
Acetone	[7]	22.1	μg/L	1	10
Iodomethane (methyl iodide)		<5.00	μg/L	1	5
Carbon Disulfide		<1.00	μg/L	1	1
Acrylonitrile		<1.00	μg/L	1	1
2-Butanone (MEK)		<5.00	μg/L	1	5
4-methyl-2-pentanone (MIBK)		<5.00	μg/L	1	5
2-hexanone		<5.00	μg/L	1	5
trans 1,4-Dichloro-2-butene		<10.0	μg/L	1	10
1,1-Dichloroethene		<1.00	μg/L	1	1
Methylene chloride		<5.00	μg/L	1	5
MTBE		<1.00	μg/L	1	1
trans-1,2-Dichloroethene		<1.00	μg/L	1	1
1,1-Dichloroethane		<1.00	μg/L	1	1
cis-1,2-Dichloroethene		<1.00	μg/L	1	1
2,2-Dichloropropane		<1.00	μg/L	1	1
1,2-Dichloroethane (EDC)		<1.00	μg/L	1	1
Chloroform		<1.00	μg/L	1	1

Continued ...

[7] possible lab contamination

... *Continued* Sample: 176348 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
1,1,1-Trichloroethane		<1.00	μg/L	1	1
1,1-Dichloropropene		<1.00	μg/L	1	1
Benzene		<1.00	μg/L	1	1
Carbon Tetrachloride		<1.00	μg/L	1	1
1,2-Dichloropropane		<1.00	μg/L	1	1
Trichloroethene (TCE)		<1.00	μg/L	1	1
Dibromomethane (methylene bromide)		<1.00	μg/L	1	1
Bromodichloromethane		<1.00	μg/L	1	1
2-Chloroethyl vinyl ether		<5.00	μg/L	1	5
cis-1,3-Dichloropropene		<1.00	μg/L	1	1
trans-1,3-Dichloropropene		<1.00	μg/L	1	1
Toluene		1.07	μg/L	1	1
1,1,2-Trichloroethane		<1.00	μg/L	1	1
1,3-Dichloropropane		<1.00	μg/L	1	1
Dibromochloromethane		<1.00	μg/L	1	1
1,2-Dibromoethane (EDB)		<1.00	μg/L	1	1
Tetrachloroethene (PCE)		<1.00	μg/L	1	1
Chlorobenzene		<1.00	μg/L	1	1
1,1,1,2-Tetrachloroethane		<1.00	μg/L	1	1
Ethylbenzene		<1.00	μg/L	1	1
m,p-Xylene		<1.00	μg/L	1	1
Bromoform		<1.00	μg/L	1	1
Styrene		<1.00	μg/L	1	1
o-Xylene		<1.00	μg/L	1	1
1,1,2,2-Tetrachloroethane		<1.00	μg/L	1	1
2-Chlorotoluene		<1.00	μg/L	1	1
1,2,3-Trichloropropane		<1.00	μg/L	1	1
Isopropylbenzene		<1.00	μg/L	1	1
Bromobenzene		<1.00	μg/L	1	1
n-Propylbenzene		<1.00	μg/L	1	1
1,3,5-Trimethylbenzene		<1.00	μg/L	1	1
tert-Butylbenzene		<1.00	μg/L	1	1
1,2,4-Trimethylbenzene		<1.00	μg/L	1	1
1,4-Dichlorobenzene (para)		<1.00	μg/L	1	1
sec-Butylbenzene		<1.00	μg/L	1	1
1,3-Dichlorobenzene		<1.00	μg/L	1	1
p-Isopropyltoluene		<1.00	μg/L	1	1
4-Chlorotoluene		<1.00	μg/L	1	1
1,2-Dichlorobenzene (ortho)		<1.00	μg/L	1	1
n-Butylbenzene		<1.00	μg/L	1	1
1,2-Dibromo-3-chloropropane		<5.00	μg/L	1	5
1,2,3-Trichlorobenzene		<5.00	μg/L	1	5
1,2,4-Trichlorobenzene		<5.00	μg/L	1	5
Naphthalene		<5.00	μg/L	1	5
Hexachlorobutadiene		<5.00	μg/L	1	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		52.91	μg/L	1	50	105	88 - 112
Toluene-d8		48.63	μg/L	1	50	97	90 - 109
4-Bromofluorobenzene		49.36	μg/L	1	50	98	84 - 103

Sample: 176349 - 0143-HMW36-0801

Analysis:	8260	Analytical Method:	S 8260B	QC Batch:	QC13360	Date Analyzed:	8/13/01
Analyst:	JG	Preparation Method:	E 5030B	Prep Batch:	PB11396	Date Prepared:	8/13/01

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<1.00	µg/L	1	1
Dichlorodifluoromethane		<1.00	µg/L	1	1
Chloromethane (methyl chloride)		<1.00	µg/L	1	1
Vinyl Chloride		<1.00	µg/L	1	1
Bromomethane (methyl bromide)		<5.00	µg/L	1	5
Chloroethane		<1.00	µg/L	1	1
Trichlorofluoromethane		<1.00	µg/L	1	1
Acetone		<10.0	µg/L	1	10
Iodomethane (methyl iodide)		<5.00	µg/L	1	5
Carbon Disulfide		<1.00	µg/L	1	1
Acrylonitrile		<1.00	µg/L	1	1
2-Butanone (MEK)		<5.00	µg/L	1	5
4-methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5
2-hexanone		<5.00	µg/L	1	5
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10
1,1-Dichloroethene		<1.00	µg/L	1	1
Methylene chloride		<5.00	µg/L	1	5
MTBE		<1.00	µg/L	1	1
trans-1,2-Dichloroethene		<1.00	µg/L	1	1
1,1-Dichloroethane		8.29	µg/L	1	1
cis-1,2-Dichloroethene		<1.00	µg/L	1	1
2,2-Dichloropropane		<1.00	µg/L	1	1
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1
Chloroform		<1.00	µg/L	1	1
1,1,1-Trichloroethane		<1.00	µg/L	1	1
1,1-Dichloropropene		<1.00	µg/L	1	1
Benzene		<1.00	µg/L	1	1
Carbon Tetrachloride		<1.00	µg/L	1	1
1,2-Dichloropropane		<1.00	µg/L	1	1
Trichloroethene (TCE)		<1.00	µg/L	1	1
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1
Bromodichloromethane		<1.00	µg/L	1	1
2-Chloroethyl vinyl ether		<5.00	µg/L	1	5
cis-1,3-Dichloropropene		<1.00	µg/L	1	1
trans-1,3-Dichloropropene		<1.00	µg/L	1	1
Toluene		<1.00	µg/L	1	1
1,1,2-Trichloroethane		<1.00	µg/L	1	1
1,3-Dichloropropane		<1.00	µg/L	1	1
Dibromochloromethane		<1.00	µg/L	1	1
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1
Tetrachloroethene (PCE)		<1.00	µg/L	1	1
Chlorobenzene		<1.00	µg/L	1	1
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1
Ethylbenzene		<1.00	µg/L	1	1
m,p-Xylene		<1.00	µg/L	1	1
Bromoform		<1.00	µg/L	1	1
Styrene		<1.00	µg/L	1	1
o-Xylene		<1.00	µg/L	1	1
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1	1
2-Chlorotoluene		<1.00	µg/L	1	1
1,2,3-Trichloropropane		<1.00	µg/L	1	1

Continued ...

... *Continued* Sample: 176349 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
Isopropylbenzene		1.84	µg/L	1	1
Bromobenzene		<1.00	µg/L	1	1
n-Propylbenzene		<1.00	µg/L	1	1
1,3,5-Trimethylbenzene		<1.00	µg/L	1	1
tert-Butylbenzene		<1.00	µg/L	1	1
1,2,4-Trimethylbenzene		<1.00	µg/L	1	1
1,4-Dichlorobenzene (para)		<1.00	µg/L	1	1
sec-Butylbenzene		1.47	µg/L	1	1
1,3-Dichlorobenzene		<1.00	µg/L	1	1
p-Isopropyltoluene		<1.00	µg/L	1	1
4-Chlorotoluene		<1.00	µg/L	1	1
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1	1
n-Butylbenzene		<1.00	µg/L	1	1
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5
Naphthalene		<5.00	µg/L	1	5
Hexachlorobutadiene		<5.00	µg/L	1	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		53.69	µg/L	1	50	107	88 - 112
Toluene-d8		48.68	µg/L	1	50	97	90 - 109
4-Bromofluorobenzene		49.60	µg/L	1	50	99	84 - 103

Sample: 176350 - 0143-HMW36-0801-TB

Analysis:	8260	Analytical Method:	S 8260B	QC Batch:	QC13360	Date Analyzed:	8/13/01
Analyst:	JG	Preparation Method:	E 5030B	Prep Batch:	PB11396	Date Prepared:	8/13/01

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<1.00	µg/L	1	1
Dichlorodifluoromethane		<1.00	µg/L	1	1
Chloromethane (methyl chloride)		<1.00	µg/L	1	1
Vinyl Chloride		<1.00	µg/L	1	1
Bromomethane (methyl bromide)		<5.00	µg/L	1	5
Chloroethane		<1.00	µg/L	1	1
Trichlorofluoromethane		<1.00	µg/L	1	1
Acetone		<10.0	µg/L	1	10
Iodomethane (methyl iodide)		<5.00	µg/L	1	5
Carbon Disulfide		<1.00	µg/L	1	1
Acrylonitrile		<1.00	µg/L	1	1
2-Butanone (MEK)		<5.00	µg/L	1	5
4-methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5
2-hexanone		<5.00	µg/L	1	5
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10
1,1-Dichloroethene		<1.00	µg/L	1	1
Methylene chloride		<5.00	µg/L	1	5
MTBE		<1.00	µg/L	1	1
trans-1,2-Dichloroethene		<1.00	µg/L	1	1
1,1-Dichloroethane		<1.00	µg/L	1	1
cis-1,2-Dichloroethene		<1.00	µg/L	1	1

Continued ...

... *Continued* Sample: 176350 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
2,2-Dichloropropane		<1.00	μg/L	1	1
1,2-Dichloroethane (EDC)		<1.00	μg/L	1	1
Chloroform		<1.00	μg/L	1	1
1,1,1-Trichloroethane		<1.00	μg/L	1	1
1,1-Dichloropropene		<1.00	μg/L	1	1
Benzene		<1.00	μg/L	1	1
Carbon Tetrachloride		<1.00	μg/L	1	1
1,2-Dichloropropane		<1.00	μg/L	1	1
Trichloroethene (TCE)		<1.00	μg/L	1	1
Dibromomethane (methylene bromide)		<1.00	μg/L	1	1
Bromodichloromethane		<1.00	μg/L	1	1
2-Chloroethyl vinyl ether		<5.00	μg/L	1	5
cis-1,3-Dichloropropene		<1.00	μg/L	1	1
trans-1,3-Dichloropropene		<1.00	μg/L	1	1
Toluene		<1.00	μg/L	1	1
1,1,2-Trichloroethane		<1.00	μg/L	1	1
1,3-Dichloropropane		<1.00	μg/L	1	1
Dibromochloromethane		<1.00	μg/L	1	1
1,2-Dibromoethane (EDB)		<1.00	μg/L	1	1
Tetrachloroethene (PCE)		<1.00	μg/L	1	1
Chlorobenzene		<1.00	μg/L	1	1
1,1,1,2-Tetrachloroethane		<1.00	μg/L	1	1
Ethylbenzene		<1.00	μg/L	1	1
m,p-Xylene		<1.00	μg/L	1	1
Bromoform		<1.00	μg/L	1	1
Styrene		<1.00	μg/L	1	1
o-Xylene		<1.00	μg/L	1	1
1,1,2,2-Tetrachloroethane		<1.00	μg/L	1	1
2-Chlorotoluene		<1.00	μg/L	1	1
1,2,3-Trichloropropane		<1.00	μg/L	1	1
Isopropylbenzene		<1.00	μg/L	1	1
Bromobenzene		<1.00	μg/L	1	1
n-Propylbenzene		<1.00	μg/L	1	1
1,3,5-Trimethylbenzene		<1.00	μg/L	1	1
tert-Butylbenzene		<1.00	μg/L	1	1
1,2,4-Trimethylbenzene		<1.00	μg/L	1	1
1,4-Dichlorobenzene (para)		<1.00	μg/L	1	1
sec-Butylbenzene		<1.00	μg/L	1	1
1,3-Dichlorobenzene		<1.00	μg/L	1	1
p-Isopropyltoluene		<1.00	μg/L	1	1
4-Chlorotoluene		<1.00	μg/L	1	1
1,2-Dichlorobenzene (ortho)		<1.00	μg/L	1	1
n-Butylbenzene		<1.00	μg/L	1	1
1,2-Dibromo-3-chloropropane		<5.00	μg/L	1	5
1,2,3-Trichlorobenzene		<5.00	μg/L	1	5
1,2,4-Trichlorobenzene		<5.00	μg/L	1	5
Naphthalene		<5.00	μg/L	1	5
Hexachlorobutadiene		<5.00	μg/L	1	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		52.27	μg/L	1	50	104	88 - 112
Toluene-d8		48.27	μg/L	1	50	96	90 - 109
4-Bromofluorobenzene		50.26	μg/L	1	50	100	84 - 103

Quality Control Report
Method Blank

Method Blank QCBatch: QC13271

Param	Flag	Results	Units	Reporting Limit
Bromochloromethane		<1.00	µg/L	1
Dichlorodifluoromethane		<1.00	µg/L	1
Chloromethane (methyl chloride)		<1.00	µg/L	1
Vinyl Chloride		<1.00	µg/L	1
Bromomethane (methyl bromide)		<5.00	µg/L	5
Chloroethane		<1.00	µg/L	1
Trichlorofluoromethane		<1.00	µg/L	1
Acetone		<10.0	µg/L	10
Iodomethane (methyl iodide)		<5.00	µg/L	5
Carbon Disulfide		<1.00	µg/L	1
Acrylonitrile		<1.00	µg/L	1
2-Butanone (MEK)		<5.00	µg/L	5
4-methyl-2-pentanone (MIBK)		<5.00	µg/L	5
2-hexanone		<5.00	µg/L	5
trans 1,4-Dichloro-2-butene		<10.0	µg/L	10
1,1-Dichloroethene		<1.00	µg/L	1
Methylene chloride		<5.00	µg/L	5
MTBE		<1.00	µg/L	1
trans-1,2-Dichloroethene		<1.00	µg/L	1
1,1-Dichloroethane		<1.00	µg/L	1
cis-1,2-Dichloroethene		<1.00	µg/L	1
2,2-Dichloropropane		<1.00	µg/L	1
1,2-Dichloroethane (EDC)		<1.00	µg/L	1
Chloroform		<1.00	µg/L	1
1,1,1-Trichloroethane		<1.00	µg/L	1
1,1-Dichloropropene		<1.00	µg/L	1
Benzene		<1.00	µg/L	1
Carbon Tetrachloride		<1.00	µg/L	1
1,2-Dichloropropane		<1.00	µg/L	1
Trichloroethene (TCE)		<1.00	µg/L	1
Dibromomethane (methylene bromide)		<1.00	µg/L	1
Bromodichloromethane		<1.00	µg/L	1
2-Chloroethyl vinyl ether		<5.00	µg/L	5
cis-1,3-Dichloropropene		<1.00	µg/L	1
trans-1,3-Dichloropropene		<1.00	µg/L	1
Toluene		<1.00	µg/L	1
1,1,2-Trichloroethane		<1.00	µg/L	1
1,3-Dichloropropane		<1.00	µg/L	1
Dibromochloromethane		<1.00	µg/L	1
1,2-Dibromoethane (EDB)		<1.00	µg/L	1
Tetrachloroethene (PCE)		<1.00	µg/L	1
Chlorobenzene		<1.00	µg/L	1
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1
Ethylbenzene		<1.00	µg/L	1
m,p-Xylene		<1.00	µg/L	1
Bromoform		<1.00	µg/L	1
Styrene		<1.00	µg/L	1
o-Xylene		<1.00	µg/L	1

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Param	Flag	Results	Units	Reporting Limit
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1
2-Chlorotoluene		<1.00	µg/L	1
1,2,3-Trichloropropane		<1.00	µg/L	1
Isopropylbenzene		<1.00	µg/L	1
Bromobenzene		<1.00	µg/L	1
n-Propylbenzene		<1.00	µg/L	1
1,3,5-Trimethylbenzene		<1.00	µg/L	1
tert-Butylbenzene		<1.00	µg/L	1
1,2,4-Trimethylbenzene		<1.00	µg/L	1
1,4-Dichlorobenzene (para)		<1.00	µg/L	1
sec-Butylbenzene		<1.00	µg/L	1
1,3-Dichlorobenzene		<1.00	µg/L	1
p-Isopropyltoluene		<1.00	µg/L	1
4-Chlorotoluene		<1.00	µg/L	1
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1
n-Butylbenzene		<1.00	µg/L	1
1,2-Dibromo-3-chloropropane		<5.00	µg/L	5
1,2,3-Trichlorobenzene		<5.00	µg/L	5
1,2,4-Trichlorobenzene		<5.00	µg/L	5
Naphthalene		<5.00	µg/L	5
Hexachlorobutadiene		<5.00	µg/L	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		44.90	µg/L	1	50	89	88 - 112
Toluene-d8		49.12	µg/L	1	50	98	90 - 109
4-Bromofluorobenzene		49.34	µg/L	1	50	98	84 103

Method Blank QCBatch: QC13360

Param	Flag	Results	Units	Reporting Limit
Bromochloromethane		<1.00	µg/L	1
Dichlorodifluoromethane		<1.00	µg/L	1
Chloromethane (methyl chloride)		<1.00	µg/L	1
Vinyl Chloride		<1.00	µg/L	1
Bromomethane (methyl bromide)		<5.00	µg/L	5
Chloroethane		<1.00	µg/L	1
Trichlorofluoromethane		<1.00	µg/L	1
Acetone		<10.0	µg/L	10
Iodomethane (methyl iodide)		<5.00	µg/L	5
Carbon Disulfide		<1.00	µg/L	1
Acrylonitrile		<1.00	µg/L	1
2-Butanone (MEK)		<5.00	µg/L	5
4-methyl-2-pentanone (MIBK)		<5.00	µg/L	5
2-hexanone		<5.00	µg/L	5
trans 1,4-Dichloro-2-butene		<10.0	µg/L	10
1,1-Dichloroethene		<1.00	µg/L	1
Methylene chloride		<5.00	µg/L	5
MTBE		<1.00	µg/L	1

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Param	Flag	Results	Units	Reporting Limit
trans-1,2-Dichloroethene		<1.00	μg/L	1
1,1-Dichloroethane		<1.00	μg/L	1
cis-1,2-Dichloroethene		<1.00	μg/L	1
2,2-Dichloropropane		<1.00	μg/L	1
1,2-Dichloroethane (EDC)		<1.00	μg/L	1
Chloroform		<1.00	μg/L	1
1,1,1-Trichloroethane		<1.00	μg/L	1
1,1-Dichloropropene		<1.00	μg/L	1
Benzene		<1.00	μg/L	1
Carbon Tetrachloride		<1.00	μg/L	1
1,2-Dichloropropane		<1.00	μg/L	1
Trichloroethene (TCE)		<1.00	μg/L	1
Dibromomethane (methylene bromide)		<1.00	μg/L	1
Bromodichloromethane		<1.00	μg/L	1
2-Chloroethyl vinyl ether		<5.00	μg/L	5
cis-1,3-Dichloropropene		<1.00	μg/L	1
trans-1,3-Dichloropropene		<1.00	μg/L	1
Toluene		<1.00	μg/L	1
1,1,2-Trichloroethane		<1.00	μg/L	1
1,3-Dichloropropane		<1.00	μg/L	1
Dibromochloromethane		<1.00	μg/L	1
1,2-Dibromoethane (EDB)		<1.00	μg/L	1
Tetrachloroethene (PCE)		<1.00	μg/L	1
Chlorobenzene		<1.00	μg/L	1
1,1,1,2-Tetrachloroethane		<1.00	μg/L	1
Ethylbenzene		<1.00	μg/L	1
m,p-Xylene		<1.00	μg/L	1
Bromoform		<1.00	μg/L	1
Styrene		<1.00	μg/L	1
o-Xylene		<1.00	μg/L	1
1,1,2,2-Tetrachloroethane		<1.00	μg/L	1
2-Chlorotoluene		<1.00	μg/L	1
1,2,3-Trichloropropane		<1.00	μg/L	1
Isopropylbenzene		<1.00	μg/L	1
Bromobenzene		<1.00	μg/L	1
n-Propylbenzene		<1.00	μg/L	1
1,3,5-Trimethylbenzene		<1.00	μg/L	1
tert-Butylbenzene		<1.00	μg/L	1
1,2,4-Trimethylbenzene		<1.00	μg/L	1
1,4-Dichlorobenzene (para)		<1.00	μg/L	1
sec-Butylbenzene		<1.00	μg/L	1
1,3-Dichlorobenzene		<1.00	μg/L	1
p-Isopropyltoluene		<1.00	μg/L	1
4-Chlorotoluene		<1.00	μg/L	1
1,2-Dichlorobenzene (ortho)		<1.00	μg/L	1
n-Butylbenzene		<1.00	μg/L	1
1,2-Dibromo-3-chloropropane		<5.00	μg/L	5
1,2,3-Trichlorobenzene		<5.00	μg/L	5
1,2,4-Trichlorobenzene		<5.00	μg/L	5
Naphthalene		<5.00	μg/L	5
Hexachlorobutadiene		<5.00	μg/L	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		51.89	µg/L	1	50	103	88 - 112
Toluene-d8		48.44	µg/L	1	50	96	90 - 109
4-Bromofluorobenzene		49.73	µg/L	1	50	99	84 - 103

Method Blank QCBatch: QC13361

Param	Flag	Results	Units	Reporting Limit
Bromochloromethane		<1.00	µg/L	1
Dichlorodifluoromethane		<1.00	µg/L	1
Chloromethane (methyl chloride)		<1.00	µg/L	1
Vinyl Chloride		<1.00	µg/L	1
Bromomethane (methyl bromide)		<5.00	µg/L	5
Chloroethane		<1.00	µg/L	1
Trichlorofluoromethane		<1.00	µg/L	1
Acetone		<10.0	µg/L	10
Iodomethane (methyl iodide)		<5.00	µg/L	5
Carbon Disulfide		<1.00	µg/L	1
Acrylonitrile		<1.00	µg/L	1
2-Butanone (MEK)		<5.00	µg/L	5
4-methyl-2-pentanone (MIBK)		<5.00	µg/L	5
2-hexanone		<5.00	µg/L	5
trans 1,4-Dichloro-2-butene		<10.0	µg/L	10
1,1-Dichloroethene		<1.00	µg/L	1
Methylene chloride		<5.00	µg/L	5
MTBE		<1.00	µg/L	1
trans-1,2-Dichloroethene		<1.00	µg/L	1
1,1-Dichloroethane		<1.00	µg/L	1
cis-1,2-Dichloroethene		<1.00	µg/L	1
2,2-Dichloropropane		<1.00	µg/L	1
1,2-Dichloroethane (EDC)		<1.00	µg/L	1
Chloroform		<1.00	µg/L	1
1,1,1-Trichloroethane		<1.00	µg/L	1
1,1-Dichloropropene		<1.00	µg/L	1
Benzene		<1.00	µg/L	1
Carbon Tetrachloride		<1.00	µg/L	1
1,2-Dichloropropane		<1.00	µg/L	1
Trichloroethene (TCE)		<1.00	µg/L	1
Dibromomethane (methylene bromide)		<1.00	µg/L	1
Bromodichloromethane		<1.00	µg/L	1
2-Chloroethyl vinyl ether		<5.00	µg/L	5
cis-1,3-Dichloropropene		<1.00	µg/L	1
trans-1,3-Dichloropropene		<1.00	µg/L	1
Toluene		<1.00	µg/L	1
1,1,2-Trichloroethane		<1.00	µg/L	1
1,3-Dichloropropane		<1.00	µg/L	1
Dibromochloromethane		<1.00	µg/L	1
1,2-Dibromoethane (EDB)		<1.00	µg/L	1
Tetrachloroethene (PCE)		<1.00	µg/L	1
Chlorobenzene		<1.00	µg/L	1
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1
Ethylbenzene		<1.00	µg/L	1

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Param	Flag	Results	Units	Reporting Limit
m,p-Xylene		<1.00	µg/L	1
Bromoform		<1.00	µg/L	1
Styrene		<1.00	µg/L	1
o-Xylene		<1.00	µg/L	1
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1
2-Chlorotoluene		<1.00	µg/L	1
1,2,3-Trichloropropane		<1.00	µg/L	1
Isopropylbenzene		<1.00	µg/L	1
Bromobenzene		<1.00	µg/L	1
n-Propylbenzene		<1.00	µg/L	1
1,3,5-Trimethylbenzene		<1.00	µg/L	1
tert-Butylbenzene		<1.00	µg/L	1
1,2,4-Trimethylbenzene		<1.00	µg/L	1
1,4-Dichlorobenzene (para)		<1.00	µg/L	1
sec-Butylbenzene		<1.00	µg/L	1
1,3-Dichlorobenzene		<1.00	µg/L	1
p-Isopropyltoluene		<1.00	µg/L	1
4-Chlorotoluene		<1.00	µg/L	1
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1
n-Butylbenzene		<1.00	µg/L	1
1,2-Dibromo-3-chloropropane		<5.00	µg/L	5
1,2,3-Trichlorobenzene		<5.00	µg/L	5
1,2,4-Trichlorobenzene		<5.00	µg/L	5
Naphthalene		<5.00	µg/L	5
Hexachlorobutadiene		<5.00	µg/L	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		54.27	µg/L	1	50	108	88 - 112
Toluene-d8		48.61	µg/L	1	50	97	90 - 109
4-Bromofluorobenzene		49.43	µg/L	1	50	98	84 - 103

Quality Control Report
Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes

QCBatch: QC13271

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
1,1-Dichloroethene	97	99	µg/L	1	100	<1.00	97	2	74 - 127	20
Benzene	97	99	µg/L	1	100	<1.00	97	2	89 - 114	20
Trichloroethene (TCE)	89	89	µg/L	1	100	<1.00	89	0	77 - 102	20
Toluene	94	95	µg/L	1	100	<1.00	94	1	87 - 111	20
Chlorobenzene	97	98	µg/L	1	100	<1.00	97	1	87 - 109	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
Dibromofluoromethane	45.65	45.15	µg/L	1	50	91	90	88 - 112

Continued ...

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
Toluene-d8	49.52	49.56	µg/L	1	50	99	99	90 - 109
4-Bromofluorobenzene	49.19	49.03	µg/L	1	50	98	98	84 - 103

Laboratory Control Spikes

QCBatch: QC13360

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
1,1-Dichloroethene	100	99	µg/L	1	100	<1.00	100	1	74 - 127	20
Benzene	96	96	µg/L	1	100	<1.00	96	0	89 - 114	20
Trichloroethene (TCE)	88	88	µg/L	1	100	<1.00	88	0	77 - 102	20
Toluene	94	94	µg/L	1	100	<1.00	94	0	87 - 111	20
Chlorobenzene	94	94	µg/L	1	100	<1.00	94	0	87 - 109	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
Dibromofluoromethane	52.20	51.48	µg/L	1	50	104	102	88 - 112
Toluene-d8	48.51	48.54	µg/L	1	50	97	97	90 - 109
4-Bromofluorobenzene	50.45	50.02	µg/L	1	50	100	100	84 - 103

Laboratory Control Spikes

QCBatch: QC13361

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
1,1-Dichloroethene	103	103	µg/L	1	100	<1.00	103	0	74 - 127	20
Benzene	98	98	µg/L	1	100	<1.00	98	0	89 - 114	20
Trichloroethene (TCE)	88	88	µg/L	1	100	<1.00	88	0	77 - 102	20
Toluene	95	95	µg/L	1	100	<1.00	95	0	87 - 111	20
Chlorobenzene	94	94	µg/L	1	100	<1.00	94	0	87 - 109	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
Dibromofluoromethane	54.47	53.53	µg/L	1	50	108	107	88 - 112
Toluene-d8	48.50	48.58	µg/L	1	50	97	97	90 - 109
4-Bromofluorobenzene	50.22	50.07	µg/L	1	50	100	100	84 - 103

Quality Control Report
Matrix Spikes and Duplicate Spikes

Matrix Spikes

QCBatch: QC13271

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
1,1-Dichloroethene	103	103	µg/L	1	100	<1.00	103	0	80 - 120	20

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Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Benzene	100	100	µg/L	1	100	<1.00	100	0	80 - 120	20
Trichloroethene (TCE)	[8] 128	[9] 128	µg/L	1	100	51.5	76	0	80 - 120	20
Toluene	96	96	µg/L	1	100	<1.00	96	0	80 - 120	20
Chlorobenzene	97	97	µg/L	1	100	<1.00	97	0	80 - 120	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dilution	Spike Amount	MS % Rec	MSD % Rec	Recovery Limits
Dibromofluoromethane	53.05	52.94	µg/L	1	50	106	105	88 - 112
Toluene-d8	49.55	49.54	µg/L	1	50	99	99	90 - 109
4-Bromofluorobenzene	49.91	50.42	µg/L	1	50	99	100	84 - 103

Matrix Spikes

QCBatch: QC13361

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
1,1-Dichloroethene	102	105	µg/L	1	100	<1.00	102	2	80 - 120	20
Benzene	96	99	µg/L	1	100	<1.00	96	3	80 - 120	20
Trichloroethene (TCE)	86	89	µg/L	1	100	<1.00	86	3	80 - 120	20
Toluene	94	96	µg/L	1	100	<1.00	94	2	80 - 120	20
Chlorobenzene	93	94	µg/L	1	100	<1.00	93	1	80 - 120	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dilution	Spike Amount	MS % Rec	MSD % Rec	Recovery Limits
Dibromofluoromethane	54.98	55.14	µg/L	1	50	109	110	88 - 112
Toluene-d8	49.16	48.94	µg/L	1	50	98	97	90 - 109
4-Bromofluorobenzene	50.08	49.54	µg/L	1	50	100	99	84 - 103

Quality Control Report
Continuing Calibration Verification Standards

CCV (1)

QCBatch: QC13271

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	100	97	97	80 - 120	8/10/01
1,1-Dichloroethene		µg/L	100	110	110	80 - 120	8/10/01
Chloroform		µg/L	100	104	104	80 - 120	8/10/01
1,2-Dichloropropane		µg/L	100	96	96	80 - 120	8/10/01

Continued ...

[8] Spike out of standard range due to problems with matrix. LCS/LCSD show process is in control.
[9] Spike out of standard range due to problems with matrix. LCS/LCSD show process is in control.

... Continued

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Toluene		µg/L	100	90	90	80 - 120	8/10/01
Chlorobenzene		µg/L	100	96	96	80 - 120	8/10/01
Ethylbenzene		µg/L	100	94	94	80 - 120	8/10/01
Dibromofluoromethane		µg/L	50	51.39	102	80 - 120	8/10/01
Toluene-d8		µg/L	50	50.07	100	80 - 120	8/10/01
4-Bromofluorobenzene		µg/L	50	50.08	100	80 - 120	8/10/01

CCV (1) QCBatch: QC13360

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	100	91	91	80 - 120	8/13/01
1,1-Dichloroethene		µg/L	100	97	97	80 - 120	8/13/01
Chloroform		µg/L	100	108	108	80 120	8/13/01
1,2-Dichloropropane		µg/L	100	98	98	80 - 120	8/13/01
Toluene		µg/L	100	93	93	80 - 120	8/13/01
Chlorobenzene		µg/L	100	94	94	80 - 120	8/13/01
Ethylbenzene		µg/L	100	94	94	80 - 120	8/13/01
Dibromofluoromethane		µg/L	50	54.20	108	80 - 120	8/13/01
Toluene-d8		µg/L	50	49.14	98	80 - 120	8/13/01
4-Bromofluorobenzene		µg/L	50	51.47	102	80 - 120	8/13/01

CCV (1) QCBatch: QC13361

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	100	91	91	80 - 120	8/13/01
1,1-Dichloroethene		µg/L	100	96	96	80 - 120	8/13/01
Chloroform		µg/L	100	112	112	80 - 120	8/13/01
1,2-Dichloropropane		µg/L	100	100	100	80 - 120	8/13/01
Toluene		µg/L	100	91	91	80 - 120	8/13/01
Chlorobenzene		µg/L	100	91	91	80 - 120	8/13/01
Ethylbenzene		µg/L	100	89	89	80 - 120	8/13/01
Dibromofluoromethane		µg/L	50	53.84	107	80 - 120	8/13/01
Toluene-d8		µg/L	50	48.40	96	80 - 120	8/13/01
4-Bromofluorobenzene		µg/L	50	51.53	103	80 - 120	8/13/01

Semi-Volatile Organic Results and Quality Control

TRACEANALYSIS, INC.

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Analytical and Quality Control Report

Karen Costa
Mevatec
P.O. Box 399 Bldg. 126
WSMR, NM 88002

Report Date: August 31, 2001

Order ID Number: A01080205

Project Number: 800 GG
Project Name: Ground Water Sampling at Helstf Chrome Site
Project Location: N/A

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
176140	0143-HMW43-0701	Water	7/31/01	15:02	8/1/01
176142	0143-HMW13-0701-QC	Water	7/31/01	14:37	8/1/01
176144	0143-HMW13-0701	Water	7/31/01	14:37	8/1/01
176146	0143-HMW39-0701-QC	Water	7/31/01	12:07	8/1/01
176148	0143-HMW39-0701	Water	7/31/01	12:07	8/1/01
176150	0143-HMW11-0701	Water	7/31/01	10:54	8/1/01
176212	0143-HMW38-0801	Water	8/1/01	1:17	8/2/01
176214	0145-HMW41-0801	Water	8/1/01	13:28	8/2/01
176216	0143-HMW37-0801	Water	8/1/01	1:17	8/2/01
176347	0143-HMW40-0801	Water	8/2/01	12:11	8/3/01
176349	0143-HMW36-0801	Water	8/2/01	11:17	8/3/01

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 27 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of TraceAnalysis, Inc.

Michael T. Alvel
Dr. Blair Leftwich, Director

Analytical Report

Sample: 176140 - 0143-HMW43-0701

Analysis:	8270	Analytical Method:	S 8270C	QC Batch:	QC13335	Date Analyzed:	8/14/01
Analyst:	RC	Preparation Method:	E 3510C	Prep Batch:	PB11374	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Pyridine		<0.005	mg/L	1	0.005
n-Nitrosodimethylamine		<0.005	mg/L	1	0.005
2-Picoline		<0.005	mg/L	1	0.005
Methyl methanesulfonate		<0.005	mg/L	1	0.005
Ethyl methanesulfonate		<0.005	mg/L	1	0.005
Phenol		<0.005	mg/L	1	0.005
Aniline		<0.005	mg/L	1	0.005
bis (2-chloroethyl) ether		<0.005	mg/L	1	0.005
2-Chlorophenol		<0.005	mg/L	1	0.005
1,3-Dichlorobenzene		<0.005	mg/L	1	0.005
1,4-Dichlorobenzene		<0.005	mg/L	1	0.005
Benzyl alcohol		<0.005	mg/L	1	0.005
1,2-Dichlorobenzene		<0.005	mg/L	1	0.005
2-Methylphenol		<0.005	mg/L	1	0.005
bis (2-chloroisopropyl) ether		<0.005	mg/L	1	0.005
4-Methylphenol/3-Methylphenol		<0.005	mg/L	1	0.005
Acetophenone		<0.005	mg/L	1	0.005
n-Nitrosodi-n-propylamine		<0.005	mg/L	1	0.005
Hexachloroethane		<0.005	mg/L	1	0.005
Nitrobenzene		<0.005	mg/L	1	0.005
n-Nitrosopiperidine		<0.005	mg/L	1	0.005
Isophorone		<0.005	mg/L	1	0.005
2-Nitrophenol		<0.005	mg/L	1	0.005
2,4-Dimethylphenol		<0.005	mg/L	1	0.005
bis (2-chloroethoxy) methane		<0.005	mg/L	1	0.005
Benzoic acid		<0.005	mg/L	1	0.005
2,4-Dichlorophenol		<0.005	mg/L	1	0.005
1,2,4-Trichlorobenzene		<0.005	mg/L	1	0.005
a,a-Dimethylphenethylamine		<0.005	mg/L	1	0.005
Naphthalene		<0.005	mg/L	1	0.005
4-Chloroaniline		<0.005	mg/L	1	0.005
2,6-Dichlorophenol		<0.005	mg/L	1	0.005
Hexachlorobutadiene		<0.005	mg/L	1	0.005
n-Nitroso-di-n-butylamine		<0.005	mg/L	1	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	1	0.005
1-Methylnaphthalene		<0.005	mg/L	1	0.005
2-Methylnaphthalene		<0.005	mg/L	1	0.005
1,2,4,5-Tetrachlorobenzene		<0.005	mg/L	1	0.005
Hexachlorocyclopentadiene		<0.005	mg/L	1	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	1	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	1	0.005
2-Chloronaphthalene		<0.005	mg/L	1	0.005
1-Chloronaphthalene		<0.005	mg/L	1	0.005
2-Nitroaniline		<0.005	mg/L	1	0.005
Dimethylphthalate		<0.005	mg/L	1	0.005
Acenaphthylene		<0.005	mg/L	1	0.005
2,6-Dinitrotoluene		<0.005	mg/L	1	0.005
3-Nitroaniline		<0.005	mg/L	1	0.005

Continued ...

... *Continued* Sample: 176140 Analysis: 8270

Param	Flag	Result	Units	Dilution	RDL
Acenaphthene		<0.005	mg/L	1	0.005
2,4-Dinitrophenol		<0.005	mg/L	1	0.005
Dibenzofuran		<0.005	mg/L	1	0.005
Pentachlorobenzene		<0.005	mg/L	1	0.005
4-Nitrophenol		<0.005	mg/L	1	0.005
1-Naphthylamine		<0.005	mg/L	1	0.005
2,4-Dinitrotoluene		<0.005	mg/L	1	0.005
2-Naphthylamine		<0.005	mg/L	1	0.005
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	1	0.005
Fluorene		<0.005	mg/L	1	0.005
Diethylphthalate		<0.005	mg/L	1	0.005
4-Chlorophenyl-phenylether		<0.005	mg/L	1	0.005
4-Nitroaniline		<0.005	mg/L	1	0.005
4,6-Dinitro-2-methylphenol		<0.005	mg/L	1	0.005
Diphenylamine		<0.005	mg/L	1	0.005
Diphenylhydrazine		<0.005	mg/L	1	0.005
4-Bromophenyl-phenylether		<0.005	mg/L	1	0.005
Phenacetin		<0.005	mg/L	1	0.005
Hexachlorobenzene		<0.005	mg/L	1	0.005
4-Aminobiphenyl		<0.005	mg/L	1	0.005
Pentachlorophenol		<0.005	mg/L	1	0.005
Pentachloronitrobenzene		<0.005	mg/L	1	0.005
Pronamide		<0.005	mg/L	1	0.005
Phenanthrene		<0.005	mg/L	1	0.005
Anthracene		<0.005	mg/L	1	0.005
Di-n-butylphthalate		<0.005	mg/L	1	0.005
Fluoranthene		<0.005	mg/L	1	0.005
Benzidine		<0.005	mg/L	1	0.005
Pyrene		<0.005	mg/L	1	0.005
p-Dimethylaminoazobenzene		<0.005	mg/L	1	0.005
Butylbenzylphthalate		<0.005	mg/L	1	0.005
Benzo(a)anthracene		<0.005	mg/L	1	0.005
3,3-Dichlorobenzidine		<0.005	mg/L	1	0.005
Chrysene		<0.005	mg/L	1	0.005
Bis (2-ethylhexyl) phthalate		<0.005	mg/L	1	0.005
Di-n-octylphthalate		<0.005	mg/L	1	0.005
Benzo(b)fluoranthene		<0.005	mg/L	1	0.005
7,12-Dimethylbenz(a)anthracene		<0.005	mg/L	1	0.005
Benzo(k)fluoranthene		<0.005	mg/L	1	0.005
Benzo(a)pyrene		<0.005	mg/L	1	0.005
3-Methylcholanthrene		<0.005	mg/L	1	0.005
Dibenzo(a,j)acridine		<0.005	mg/L	1	0.005
Indeno(1,2,3-cd)pyrene		<0.005	mg/L	1	0.005
Dibenzo(a,h)anthracene		<0.005	mg/L	1	0.005
Benzo(g,h,i)perylene		<0.005	mg/L	1	0.005

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		16.12	mg/L	1	80	20	21 - 100
Phenol-d5		12.08	mg/L	1	80	15	11 - 94
Nitrobenzene-d5		41.92	mg/L	1	80	52	35 - 114
2-Fluorobiphenyl		42.23	mg/L	1	80	52	43 - 116
2,4,6-Tribromophenol		53.45	mg/L	1	80	66	10 - 123
Terphenyl-d14		62.03	mg/L	1	80	77	33 - 141

Sample: 176142 - 0143-HMW13-0701-QC

Analysis:	8270	Analytical Method:	S 8270C	QC Batch:	QC13335	Date Analyzed:	8/14/01
Analyst:	RC	Preparation Method:	E 3510C	Prep Batch:	PB11374	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Pyridine		<0.005	mg/L	1	0.005
n-Nitrosodimethylamine		<0.005	mg/L	1	0.005
2-Picoline		<0.005	mg/L	1	0.005
Methyl methanesulfonate		<0.005	mg/L	1	0.005
Ethyl methanesulfonate		<0.005	mg/L	1	0.005
Phenol		<0.005	mg/L	1	0.005
Aniline		<0.005	mg/L	1	0.005
bis (2-chloroethyl) ether		<0.005	mg/L	1	0.005
2-Chlorophenol		<0.005	mg/L	1	0.005
1,3-Dichlorobenzene		<0.005	mg/L	1	0.005
1,4-Dichlorobenzene		<0.005	mg/L	1	0.005
Benzyl alcohol		<0.005	mg/L	1	0.005
1,2-Dichlorobenzene		<0.005	mg/L	1	0.005
2-Methylphenol		<0.005	mg/L	1	0.005
bis (2-chloroisopropyl) ether		<0.005	mg/L	1	0.005
4-Methylphenol/3-Methylphenol		<0.005	mg/L	1	0.005
Acetophenone		<0.005	mg/L	1	0.005
n-Nitrosodi-n-propylamine		<0.005	mg/L	1	0.005
Hexachloroethane		<0.005	mg/L	1	0.005
Nitrobenzene		<0.005	mg/L	1	0.005
n-Nitrosopiperidine		<0.005	mg/L	1	0.005
Isophorone		<0.005	mg/L	1	0.005
2-Nitrophenol		<0.005	mg/L	1	0.005
2,4-Dimethylphenol		<0.005	mg/L	1	0.005
bis (2-chloroethoxy) methane		<0.005	mg/L	1	0.005
Benzoic acid		<0.005	mg/L	1	0.005
2,4-Dichlorophenol		<0.005	mg/L	1	0.005
1,2,4-Trichlorobenzene		<0.005	mg/L	1	0.005
a,a-Dimethylphenethylamine		<0.005	mg/L	1	0.005
Naphthalene		<0.005	mg/L	1	0.005
4-Chloroaniline		<0.005	mg/L	1	0.005
2,6-Dichlorophenol		<0.005	mg/L	1	0.005
Hexachlorobutadiene		<0.005	mg/L	1	0.005
n-Nitroso-di-n-butylamine		<0.005	mg/L	1	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	1	0.005
1-Methylnaphthalene		<0.005	mg/L	1	0.005
2-Methylnaphthalene		<0.005	mg/L	1	0.005
1,2,4,5-Tetrachlorobenzene		<0.005	mg/L	1	0.005
Hexachlorocyclopentadiene		<0.005	mg/L	1	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	1	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	1	0.005
2-Chloronaphthalene		<0.005	mg/L	1	0.005
1-Chloronaphthalene		<0.005	mg/L	1	0.005
2-Nitroaniline		<0.005	mg/L	1	0.005
Dimethylphthalate		<0.005	mg/L	1	0.005
Acenaphthylene		<0.005	mg/L	1	0.005
2,6-Dinitrotoluene		<0.005	mg/L	1	0.005
3-Nitroaniline		<0.005	mg/L	1	0.005
Acenaphthene		<0.005	mg/L	1	0.005
2,4-Dinitrophenol		<0.005	mg/L	1	0.005
Dibenzofuran		<0.005	mg/L	1	0.005

Continued ...

... *Continued* Sample: 176142 Analysis: 8270

Param	Flag	Result	Units	Dilution	RDL
Pentachlorobenzene		<0.005	mg/L	1	0.005
4-Nitrophenol		<0.005	mg/L	1	0.005
1-Naphthylamine		<0.005	mg/L	1	0.005
2,4-Dinitrotoluene		<0.005	mg/L	1	0.005
2-Naphthylamine		<0.005	mg/L	1	0.005
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	1	0.005
Fluorene		<0.005	mg/L	1	0.005
Diethylphthalate		<0.005	mg/L	1	0.005
4-Chlorophenyl-phenylether		<0.005	mg/L	1	0.005
4-Nitroaniline		<0.005	mg/L	1	0.005
4,6-Dinitro-2-methylphenol		<0.005	mg/L	1	0.005
Diphenylamine		<0.005	mg/L	1	0.005
Diphenylhydrazine		<0.005	mg/L	1	0.005
4-Bromophenyl-phenylether		<0.005	mg/L	1	0.005
Phenacetin		<0.005	mg/L	1	0.005
Hexachlorobenzene		<0.005	mg/L	1	0.005
4-Aminobiphenyl		<0.005	mg/L	1	0.005
Pentachlorophenol		<0.005	mg/L	1	0.005
Pentachloronitrobenzene		<0.005	mg/L	1	0.005
Pronamide		<0.005	mg/L	1	0.005
Phenanthrene		<0.005	mg/L	1	0.005
Anthracene		<0.005	mg/L	1	0.005
Di-n-butylphthalate		<0.005	mg/L	1	0.005
Fluoranthene		<0.005	mg/L	1	0.005
Benzidine		<0.005	mg/L	1	0.005
Pyrene		<0.005	mg/L	1	0.005
p-Dimethylaminoazobenzene		<0.005	mg/L	1	0.005
Butylbenzylphthalate		<0.005	mg/L	1	0.005
Benzo(a)anthracene		<0.005	mg/L	1	0.005
3,3-Dichlorobenzidine		<0.005	mg/L	1	0.005
Chrysene		<0.005	mg/L	1	0.005
Bis (2-ethylhexyl) phthalate		<0.005	mg/L	1	0.005
Di-n-octylphthalate		<0.005	mg/L	1	0.005
Benzo(b)fluoranthene		<0.005	mg/L	1	0.005
7,12-Dimethylbenz(a)anthracene		<0.005	mg/L	1	0.005
Benzo(k)fluoranthene		<0.005	mg/L	1	0.005
Benzo(a)pyrene		<0.005	mg/L	1	0.005
3-Methylcholanthrene		<0.005	mg/L	1	0.005
Dibenzo(a,j)acridine		<0.005	mg/L	1	0.005
Indeno(1,2,3-cd)pyrene		<0.005	mg/L	1	0.005
Dibenzo(a,h)anthracene		<0.005	mg/L	1	0.005
Benzo(g,h,i)perylene		<0.005	mg/L	1	0.005

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		16.32	mg/L	1	80	20	21 - 100
Phenol-d5		12.58	mg/L	1	80	15	11 - 94
Nitrobenzene-d5		39.80	mg/L	1	80	49	35 - 114
2-Fluorobiphenyl		42.28	mg/L	1	80	52	43 - 116
2,4,6-Tribromophenol		57.08	mg/L	1	80	71	10 - 123
Terphenyl-d14		62.13	mg/L	1	80	77	33 - 141

Sample: 176144 - 0143-HMW13-0701

Analysis:	8270	Analytical Method:	S 8270C	QC Batch:	QC13335	Date Analyzed:	8/14/01
Analyst:	RC	Preparation Method:	E 3510C	Prep Batch:	PB11374	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Pyridine		<0.005	mg/L	1	0.005
n-Nitrosodimethylamine		<0.005	mg/L	1	0.005
2-Picoline		<0.005	mg/L	1	0.005
Methyl methanesulfonate		<0.005	mg/L	1	0.005
Ethyl methanesulfonate		<0.005	mg/L	1	0.005
Phenol		<0.005	mg/L	1	0.005
Aniline		<0.005	mg/L	1	0.005
bis (2-chloroethyl) ether		<0.005	mg/L	1	0.005
2-Chlorophenol		<0.005	mg/L	1	0.005
1,3-Dichlorobenzene		<0.005	mg/L	1	0.005
1,4-Dichlorobenzene		<0.005	mg/L	1	0.005
Benzyl alcohol		<0.005	mg/L	1	0.005
1,2-Dichlorobenzene		<0.005	mg/L	1	0.005
2-Methylphenol		<0.005	mg/L	1	0.005
bis (2-chloroisopropyl) ether		<0.005	mg/L	1	0.005
4-Methylphenol/3-Methylphenol		<0.005	mg/L	1	0.005
Acetophenone		<0.005	mg/L	1	0.005
n-Nitrosodi-n-propylamine		<0.005	mg/L	1	0.005
Hexachloroethane		<0.005	mg/L	1	0.005
Nitrobenzene		<0.005	mg/L	1	0.005
n-Nitrosopiperidine		<0.005	mg/L	1	0.005
Isophorone		<0.005	mg/L	1	0.005
2-Nitrophenol		<0.005	mg/L	1	0.005
2,4-Dimethylphenol		<0.005	mg/L	1	0.005
bis (2-chloroethoxy) methane		<0.005	mg/L	1	0.005
Benzoic acid		<0.005	mg/L	1	0.005
2,4-Dichlorophenol		<0.005	mg/L	1	0.005
1,2,4-Trichlorobenzene		<0.005	mg/L	1	0.005
a,a-Dimethylphenethylamine		<0.005	mg/L	1	0.005
Naphthalene		<0.005	mg/L	1	0.005
4-Chloroaniline		<0.005	mg/L	1	0.005
2,6-Dichlorophenol		<0.005	mg/L	1	0.005
Hexachlorobutadiene		<0.005	mg/L	1	0.005
n-Nitroso-di-n-butylamine		<0.005	mg/L	1	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	1	0.005
1-Methylnaphthalene		<0.005	mg/L	1	0.005
2-Methylnaphthalene		<0.005	mg/L	1	0.005
1,2,4,5-Tetrachlorobenzene		<0.005	mg/L	1	0.005
Hexachlorocyclopentadiene		<0.005	mg/L	1	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	1	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	1	0.005
2-Chloronaphthalene		<0.005	mg/L	1	0.005
1-Chloronaphthalene		<0.005	mg/L	1	0.005
2-Nitroaniline		<0.005	mg/L	1	0.005
Dimethylphthalate		<0.005	mg/L	1	0.005
Acenaphthylene		<0.005	mg/L	1	0.005
2,6-Dinitrotoluene		<0.005	mg/L	1	0.005
3-Nitroaniline		<0.005	mg/L	1	0.005
Acenaphthene		<0.005	mg/L	1	0.005
2,4-Dinitrophenol		<0.005	mg/L	1	0.005
Dibenzofuran		<0.005	mg/L	1	0.005

Continued ...

... *Continued* Sample: 176144 Analysis: 8270

Param	Flag	Result	Units	Dilution	RDL
Pentachlorobenzene		<0.005	mg/L	1	0.005
4-Nitrophenol		<0.005	mg/L	1	0.005
1-Naphthylamine		<0.005	mg/L	1	0.005
2,4-Dinitrotoluene		<0.005	mg/L	1	0.005
2-Naphthylamine		<0.005	mg/L	1	0.005
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	1	0.005
Fluorene		<0.005	mg/L	1	0.005
Diethylphthalate		<0.005	mg/L	1	0.005
4-Chlorophenyl-phenylether		<0.005	mg/L	1	0.005
4-Nitroaniline		<0.005	mg/L	1	0.005
4,6-Dinitro-2-methylphenol		<0.005	mg/L	1	0.005
Diphenylamine		<0.005	mg/L	1	0.005
Diphenylhydrazine		<0.005	mg/L	1	0.005
4-Bromophenyl-phenylether		<0.005	mg/L	1	0.005
Phenacetin		<0.005	mg/L	1	0.005
Hexachlorobenzene		<0.005	mg/L	1	0.005
4-Aminobiphenyl		<0.005	mg/L	1	0.005
Pentachlorophenol		<0.005	mg/L	1	0.005
Pentachloronitrobenzene		<0.005	mg/L	1	0.005
Pronamide		<0.005	mg/L	1	0.005
Phenanthrene		<0.005	mg/L	1	0.005
Anthracene		<0.005	mg/L	1	0.005
Di-n-butylphthalate		<0.005	mg/L	1	0.005
Fluoranthene		<0.005	mg/L	1	0.005
Benzidine		<0.005	mg/L	1	0.005
Pyrene		<0.005	mg/L	1	0.005
p-Dimethylaminoazobenzene		<0.005	mg/L	1	0.005
Butylbenzylphthalate		<0.005	mg/L	1	0.005
Benzo(a)anthracene		<0.005	mg/L	1	0.005
3,3-Dichlorobenzidine		<0.005	mg/L	1	0.005
Chrysene		<0.005	mg/L	1	0.005
Bis (2-ethylhexyl) phthalate		<0.005	mg/L	1	0.005
Di-n-octylphthalate		<0.005	mg/L	1	0.005
Benzo(b)fluoranthene		<0.005	mg/L	1	0.005
7,12-Dimethylbenz(a)anthracene		<0.005	mg/L	1	0.005
Benzo(k)fluoranthene		<0.005	mg/L	1	0.005
Benzo(a)pyrene		<0.005	mg/L	1	0.005
3-Methylcholanthrene		<0.005	mg/L	1	0.005
Dibenzo(a,j)acridine		<0.005	mg/L	1	0.005
Indeno(1,2,3-cd)pyrene		<0.005	mg/L	1	0.005
Dibenzo(a,h)anthracene		<0.005	mg/L	1	0.005
Benzo(g,h,i)perylene		<0.005	mg/L	1	0.005

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		20.91	mg/L	1	80	26	21 - 100
Phenol-d5		15.84	mg/L	1	80	19	11 - 94
Nitrobenzene-d5		56.90	mg/L	1	80	71	35 - 114
2-Fluorobiphenyl		57.92	mg/L	1	80	72	43 - 116
2,4,6-Tribromophenol		69.36	mg/L	1	80	86	10 - 123
Terphenyl-d14		63.18	mg/L	1	80	78	33 - 141

Sample: 176146 - 0143-HMW39-0701-QC

Analysis:	8270	Analytical Method:	S 8270C	QC Batch:	QC13335	Date Analyzed:	8/14/01
Analyst:	RC	Preparation Method:	E 3510C	Prep Batch:	PB11374	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Pyridine		<0.005	mg/L	1	0.005
n-Nitrosodimethylamine		<0.005	mg/L	1	0.005
2-Picoline		<0.005	mg/L	1	0.005
Methyl methanesulfonate		<0.005	mg/L	1	0.005
Ethyl methanesulfonate		<0.005	mg/L	1	0.005
Phenol		<0.005	mg/L	1	0.005
Aniline		<0.005	mg/L	1	0.005
bis (2-chloroethyl) ether		<0.005	mg/L	1	0.005
2-Chlorophenol		<0.005	mg/L	1	0.005
1,3-Dichlorobenzene		<0.005	mg/L	1	0.005
1,4-Dichlorobenzene		<0.005	mg/L	1	0.005
Benzyl alcohol		<0.005	mg/L	1	0.005
1,2-Dichlorobenzene		<0.005	mg/L	1	0.005
2-Methylphenol		<0.005	mg/L	1	0.005
bis (2-chloroisopropyl) ether		<0.005	mg/L	1	0.005
4-Methylphenol/3-Methylphenol		<0.005	mg/L	1	0.005
Acetophenone		<0.005	mg/L	1	0.005
n-Nitrosodi-n-propylamine		<0.005	mg/L	1	0.005
Hexachloroethane		<0.005	mg/L	1	0.005
Nitrobenzene		<0.005	mg/L	1	0.005
n-Nitrosopiperidine		<0.005	mg/L	1	0.005
Isophorone		<0.005	mg/L	1	0.005
2-Nitrophenol		<0.005	mg/L	1	0.005
2,4-Dimethylphenol		<0.005	mg/L	1	0.005
bis (2-chloroethoxy) methane		<0.005	mg/L	1	0.005
Benzoic acid		<0.005	mg/L	1	0.005
2,4-Dichlorophenol		<0.005	mg/L	1	0.005
1,2,4-Trichlorobenzene		<0.005	mg/L	1	0.005
a,a-Dimethylphenethylamine		<0.005	mg/L	1	0.005
Naphthalene		<0.005	mg/L	1	0.005
4-Chloroaniline		<0.005	mg/L	1	0.005
2,6-Dichlorophenol		<0.005	mg/L	1	0.005
Hexachlorobutadiene		<0.005	mg/L	1	0.005
n-Nitroso-di-n-butylamine		<0.005	mg/L	1	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	1	0.005
1-Methylnaphthalene		<0.005	mg/L	1	0.005
2-Methylnaphthalene		<0.005	mg/L	1	0.005
1,2,4,5-Tetrachlorobenzene		<0.005	mg/L	1	0.005
Hexachlorocyclopentadiene		<0.005	mg/L	1	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	1	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	1	0.005
2-Chloronaphthalene		<0.005	mg/L	1	0.005
1-Chloronaphthalene		<0.005	mg/L	1	0.005
2-Nitroaniline		<0.005	mg/L	1	0.005
Dimethylphthalate		<0.005	mg/L	1	0.005
Acenaphthylene		<0.005	mg/L	1	0.005
2,6-Dinitrotoluene		<0.005	mg/L	1	0.005
3-Nitroaniline		<0.005	mg/L	1	0.005
Acenaphthene		<0.005	mg/L	1	0.005
2,4-Dinitrophenol		<0.005	mg/L	1	0.005
Dibenzofuran		<0.005	mg/L	1	0.005

Continued ...

... *Continued* Sample: 176146 Analysis: 8270

Param	Flag	Result	Units	Dilution	RDL
Pentachlorobenzene		<0.005	mg/L	1	0.005
4-Nitrophenol		<0.005	mg/L	1	0.005
1-Naphthylamine		<0.005	mg/L	1	0.005
2,4-Dinitrotoluene		<0.005	mg/L	1	0.005
2-Naphthylamine		<0.005	mg/L	1	0.005
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	1	0.005
Fluorene		<0.005	mg/L	1	0.005
Diethylphthalate		<0.005	mg/L	1	0.005
4-Chlorophenyl-phenylether		<0.005	mg/L	1	0.005
4-Nitroaniline		<0.005	mg/L	1	0.005
4,6-Dinitro-2-methylphenol		<0.005	mg/L	1	0.005
Diphenylamine		<0.005	mg/L	1	0.005
Diphenylhydrazine		<0.005	mg/L	1	0.005
4-Bromophenyl-phenylether		<0.005	mg/L	1	0.005
Phenacetin		<0.005	mg/L	1	0.005
Hexachlorobenzene		<0.005	mg/L	1	0.005
4-Aminobiphenyl		<0.005	mg/L	1	0.005
Pentachlorophenol		<0.005	mg/L	1	0.005
Pentachloronitrobenzene		<0.005	mg/L	1	0.005
Pronamide		<0.005	mg/L	1	0.005
Phenanthrene		<0.005	mg/L	1	0.005
Anthracene		<0.005	mg/L	1	0.005
Di-n-butylphthalate		<0.005	mg/L	1	0.005
Fluoranthene		<0.005	mg/L	1	0.005
Benzidine		<0.005	mg/L	1	0.005
Pyrene		<0.005	mg/L	1	0.005
p-Dimethylaminoazobenzene		<0.005	mg/L	1	0.005
Butylbenzylphthalate		<0.005	mg/L	1	0.005
Benzo(a)anthracene		<0.005	mg/L	1	0.005
3,3-Dichlorobenzidine		<0.005	mg/L	1	0.005
Chrysene		<0.005	mg/L	1	0.005
Bis (2-ethylhexyl) phthalate		<0.005	mg/L	1	0.005
Di-n-octylphthalate		<0.005	mg/L	1	0.005
Benzo(b)fluoranthene		<0.005	mg/L	1	0.005
7,12-Dimethylbenz(a)anthracene		<0.005	mg/L	1	0.005
Benzo(k)fluoranthene		<0.005	mg/L	1	0.005
Benzo(a)pyrene		<0.005	mg/L	1	0.005
3-Methylcholanthrene		<0.005	mg/L	1	0.005
Dibenzo(a,j)acridine		<0.005	mg/L	1	0.005
Indeno(1,2,3-cd)pyrene		<0.005	mg/L	1	0.005
Dibenzo(a,h)anthracene		<0.005	mg/L	1	0.005
Benzo(g,h,i)perylene		<0.005	mg/L	1	0.005

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		31.83	mg/L	1	80	39	21 - 100
Phenol-d5		26.61	mg/L	1	80	33	11 - 94
Nitrobenzene-d5		67.62	mg/L	1	80	84	35 - 114
2-Fluorobiphenyl		63.66	mg/L	1	80	79	43 - 116
2,4,6-Tribromophenol		70.91	mg/L	1	80	88	10 - 123
Terphenyl-d14		75.28	mg/L	1	80	94	33 - 141

Sample: 176148 - 0143-HMW39-0701

Analysis:	8270	Analytical Method:	S 8270C	QC Batch:	QC13335	Date Analyzed:	8/14/01
Analyst:	RC	Preparation Method:	E 3510C	Prep Batch:	PB11374	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Pyridine		<0.005	mg/L	1	0.005
n-Nitrosodimethylamine		<0.005	mg/L	1	0.005
2-Picoline		<0.005	mg/L	1	0.005
Methyl methanesulfonate		<0.005	mg/L	1	0.005
Ethyl methanesulfonate		<0.005	mg/L	1	0.005
Phenol		<0.005	mg/L	1	0.005
Aniline		<0.005	mg/L	1	0.005
bis (2-chloroethyl) ether		<0.005	mg/L	1	0.005
2-Chlorophenol		<0.005	mg/L	1	0.005
1,3-Dichlorobenzene		<0.005	mg/L	1	0.005
1,4-Dichlorobenzene		<0.005	mg/L	1	0.005
Benzyl alcohol		<0.005	mg/L	1	0.005
1,2-Dichlorobenzene		<0.005	mg/L	1	0.005
2-Methylphenol		<0.005	mg/L	1	0.005
bis (2-chloroisopropyl) ether		<0.005	mg/L	1	0.005
4-Methylphenol/3-Methylphenol		<0.005	mg/L	1	0.005
Acetophenone		<0.005	mg/L	1	0.005
n-Nitrosodi-n-propylamine		<0.005	mg/L	1	0.005
Hexachloroethane		<0.005	mg/L	1	0.005
Nitrobenzene		<0.005	mg/L	1	0.005
n-Nitrosopiperidine		<0.005	mg/L	1	0.005
Isophorone		<0.005	mg/L	1	0.005
2-Nitrophenol		<0.005	mg/L	1	0.005
2,4-Dimethylphenol		<0.005	mg/L	1	0.005
bis (2-chloroethoxy) methane		<0.005	mg/L	1	0.005
Benzoic acid		<0.005	mg/L	1	0.005
2,4-Dichlorophenol		<0.005	mg/L	1	0.005
1,2,4-Trichlorobenzene		<0.005	mg/L	1	0.005
a,a-Dimethylphenethylamine		<0.005	mg/L	1	0.005
Naphthalene		<0.005	mg/L	1	0.005
4-Chloroaniline		<0.005	mg/L	1	0.005
2,6-Dichlorophenol		<0.005	mg/L	1	0.005
Hexachlorobutadiene		<0.005	mg/L	1	0.005
n-Nitroso-di-n-butylamine		<0.005	mg/L	1	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	1	0.005
1-Methylnaphthalene		<0.005	mg/L	1	0.005
2-Methylnaphthalene		<0.005	mg/L	1	0.005
1,2,4,5-Tetrachlorobenzene		<0.005	mg/L	1	0.005
Hexachlorocyclopentadiene		<0.005	mg/L	1	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	1	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	1	0.005
2-Chloronaphthalene		<0.005	mg/L	1	0.005
1-Chloronaphthalene		<0.005	mg/L	1	0.005
2-Nitroaniline		<0.005	mg/L	1	0.005
Dimethylphthalate		<0.005	mg/L	1	0.005
Acenaphthylene		<0.005	mg/L	1	0.005
2,6-Dinitrotoluene		<0.005	mg/L	1	0.005
3-Nitroaniline		<0.005	mg/L	1	0.005
Acenaphthene		<0.005	mg/L	1	0.005
2,4-Dinitrophenol		<0.005	mg/L	1	0.005
Dibenzofuran		<0.005	mg/L	1	0.005

Continued ...

... *Continued* Sample: 176148 Analysis: 8270

Param	Flag	Result	Units	Dilution	RDL
Pentachlorobenzene		<0.005	mg/L	1	0.005
4-Nitrophenol		<0.005	mg/L	1	0.005
1-Naphthylamine		<0.005	mg/L	1	0.005
2,4-Dinitrotoluene		<0.005	mg/L	1	0.005
2-Naphthylamine		<0.005	mg/L	1	0.005
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	1	0.005
Fluorene		<0.005	mg/L	1	0.005
Diethylphthalate		<0.005	mg/L	1	0.005
4-Chlorophenyl-phenylether		<0.005	mg/L	1	0.005
4-Nitroaniline		<0.005	mg/L	1	0.005
4,6-Dinitro-2-methylphenol		<0.005	mg/L	1	0.005
Diphenylamine		<0.005	mg/L	1	0.005
Diphenylhydrazine		<0.005	mg/L	1	0.005
4-Bromophenyl-phenylether		<0.005	mg/L	1	0.005
Phenacetin		<0.005	mg/L	1	0.005
Hexachlorobenzene		<0.005	mg/L	1	0.005
4-Aminobiphenyl		<0.005	mg/L	1	0.005
Pentachlorophenol		<0.005	mg/L	1	0.005
Pentachloronitrobenzene		<0.005	mg/L	1	0.005
Pronamide		<0.005	mg/L	1	0.005
Phenanthrene		<0.005	mg/L	1	0.005
Anthracene		<0.005	mg/L	1	0.005
Di-n-butylphthalate		<0.005	mg/L	1	0.005
Fluoranthene		<0.005	mg/L	1	0.005
Benzidine		<0.005	mg/L	1	0.005
Pyrene		<0.005	mg/L	1	0.005
p-Dimethylaminoazobenzene		<0.005	mg/L	1	0.005
Butylbenzylphthalate		<0.005	mg/L	1	0.005
Benzo(a)anthracene		<0.005	mg/L	1	0.005
3,3-Dichlorobenzidine		<0.005	mg/L	1	0.005
Chrysene		<0.005	mg/L	1	0.005
Bis (2-ethylhexyl) phthalate		<0.005	mg/L	1	0.005
Di-n-octylphthalate		<0.005	mg/L	1	0.005
Benzo(b)fluoranthene		<0.005	mg/L	1	0.005
7,12-Dimethylbenz(a)anthracene		<0.005	mg/L	1	0.005
Benzo(k)fluoranthene		<0.005	mg/L	1	0.005
Benzo(a)pyrene		<0.005	mg/L	1	0.005
3-Methylcholanthrene		<0.005	mg/L	1	0.005
Dibenzo(a,j)acridine		<0.005	mg/L	1	0.005
Indeno(1,2,3-cd)pyrene		<0.005	mg/L	1	0.005
Dibenzo(a,h)anthracene		<0.005	mg/L	1	0.005
Benzo(g,h,i)perylene		<0.005	mg/L	1	0.005

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		27.56	mg/L	1	80	34	21 - 100
Phenol-d5		23.18	mg/L	1	80	28	11 - 94
Nitrobenzene-d5		57.76	mg/L	1	80	72	35 - 114
2-Fluorobiphenyl		59.87	mg/L	1	80	74	43 - 116
2,4,6-Tribromophenol		67.21	mg/L	1	80	84	10 - 123
Terphenyl-d14		78.74	mg/L	1	80	98	33 - 141

Sample: 176150 - 0143-HMW11-0701

Analysis:	8270	Analytical Method:	S 8270C	QC Batch:	QC13335	Date Analyzed:	8/14/01
Analyst:	RC	Preparation Method:	E 3510C	Prep Batch:	PB11374	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Pyridine		<0.005	mg/L	1	0.005
n-Nitrosodimethylamine		<0.005	mg/L	1	0.005
2-Picoline		<0.005	mg/L	1	0.005
Methyl methanesulfonate		<0.005	mg/L	1	0.005
Ethyl methanesulfonate		<0.005	mg/L	1	0.005
Phenol		<0.005	mg/L	1	0.005
Aniline		<0.005	mg/L	1	0.005
bis (2-chloroethyl) ether		<0.005	mg/L	1	0.005
2-Chlorophenol		<0.005	mg/L	1	0.005
1,3-Dichlorobenzene		<0.005	mg/L	1	0.005
1,4-Dichlorobenzene		<0.005	mg/L	1	0.005
Benzyl alcohol		<0.005	mg/L	1	0.005
1,2-Dichlorobenzene		<0.005	mg/L	1	0.005
2-Methylphenol		<0.005	mg/L	1	0.005
bis (2-chloroisopropyl) ether		<0.005	mg/L	1	0.005
4-Methylphenol/3-Methylphenol		<0.005	mg/L	1	0.005
Acetophenone		<0.005	mg/L	1	0.005
n-Nitrosodi-n-propylamine		<0.005	mg/L	1	0.005
Hexachloroethane		<0.005	mg/L	1	0.005
Nitrobenzene		<0.005	mg/L	1	0.005
n-Nitrosopiperidine		<0.005	mg/L	1	0.005
Isophorone		<0.005	mg/L	1	0.005
2-Nitrophenol		<0.005	mg/L	1	0.005
2,4-Dimethylphenol		<0.005	mg/L	1	0.005
bis (2-chloroethoxy) methane		<0.005	mg/L	1	0.005
Benzoic acid		<0.005	mg/L	1	0.005
2,4-Dichlorophenol		<0.005	mg/L	1	0.005
1,2,4-Trichlorobenzene		<0.005	mg/L	1	0.005
a,a-Dimethylphenethylamine		<0.005	mg/L	1	0.005
Naphthalene		<0.005	mg/L	1	0.005
4-Chloroaniline		<0.005	mg/L	1	0.005
2,6-Dichlorophenol		<0.005	mg/L	1	0.005
Hexachlorobutadiene		<0.005	mg/L	1	0.005
n-Nitroso-di-n-butylamine		<0.005	mg/L	1	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	1	0.005
1-Methylnaphthalene		<0.005	mg/L	1	0.005
2-Methylnaphthalene		<0.005	mg/L	1	0.005
1,2,4,5-Tetrachlorobenzene		<0.005	mg/L	1	0.005
Hexachlorocyclopentadiene		<0.005	mg/L	1	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	1	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	1	0.005
2-Chloronaphthalene		<0.005	mg/L	1	0.005
1-Chloronaphthalene		<0.005	mg/L	1	0.005
2-Nitroaniline		<0.005	mg/L	1	0.005
Dimethylphthalate		<0.005	mg/L	1	0.005
Acenaphthylene		<0.005	mg/L	1	0.005
2,6-Dinitrotoluene		<0.005	mg/L	1	0.005
3-Nitroaniline		<0.005	mg/L	1	0.005
Acenaphthene		<0.005	mg/L	1	0.005
2,4-Dinitrophenol		<0.005	mg/L	1	0.005
Dibenzofuran		<0.005	mg/L	1	0.005

Continued ...

... *Continued* Sample: 176150 Analysis: 8270

Param	Flag	Result	Units	Dilution	RDL
Pentachlorobenzene		<0.005	mg/L	1	0.005
4-Nitrophenol		<0.005	mg/L	1	0.005
1-Naphthylamine		<0.005	mg/L	1	0.005
2,4-Dinitrotoluene		<0.005	mg/L	1	0.005
2-Naphthylamine		<0.005	mg/L	1	0.005
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	1	0.005
Fluorene		<0.005	mg/L	1	0.005
Diethylphthalate		<0.005	mg/L	1	0.005
4-Chlorophenyl-phenylether		<0.005	mg/L	1	0.005
4-Nitroaniline		<0.005	mg/L	1	0.005
4,6-Dinitro-2-methylphenol		<0.005	mg/L	1	0.005
Diphenylamine		<0.005	mg/L	1	0.005
Diphenylhydrazine		<0.005	mg/L	1	0.005
4-Bromophenyl-phenylether		<0.005	mg/L	1	0.005
Phenacetin		<0.005	mg/L	1	0.005
Hexachlorobenzene		<0.005	mg/L	1	0.005
4-Aminobiphenyl		<0.005	mg/L	1	0.005
Pentachlorophenol		<0.005	mg/L	1	0.005
Pentachloronitrobenzene		<0.005	mg/L	1	0.005
Pronamide		<0.005	mg/L	1	0.005
Phenanthrene		<0.005	mg/L	1	0.005
Anthracene		<0.005	mg/L	1	0.005
Di-n-butylphthalate		<0.005	mg/L	1	0.005
Fluoranthene		<0.005	mg/L	1	0.005
Benzidine		<0.005	mg/L	1	0.005
Pyrene		<0.005	mg/L	1	0.005
p-Dimethylaminoazobenzene		<0.005	mg/L	1	0.005
Butylbenzylphthalate		<0.005	mg/L	1	0.005
Benzo(a)anthracene		<0.005	mg/L	1	0.005
3,3-Dichlorobenzidine		<0.005	mg/L	1	0.005
Chrysene		<0.005	mg/L	1	0.005
Bis (2-ethylhexyl) phthalate		<0.005	mg/L	1	0.005
Di-n-octylphthalate		<0.005	mg/L	1	0.005
Benzo(b)fluoranthene		<0.005	mg/L	1	0.005
7,12-Dimethylbenz(a)anthracene		<0.005	mg/L	1	0.005
Benzo(k)fluoranthene		<0.005	mg/L	1	0.005
Benzo(a)pyrene		<0.005	mg/L	1	0.005
3-Methylcholanthrene		<0.005	mg/L	1	0.005
Dibenzo(a,j)acridine		<0.005	mg/L	1	0.005
Indeno(1,2,3-cd)pyrene		<0.005	mg/L	1	0.005
Dibenzo(a,h)anthracene		<0.005	mg/L	1	0.005
Benzo(g,h,i)perylene		<0.005	mg/L	1	0.005

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		19.76	mg/L	1	80	24	21 - 100
Phenol-d5		15.65	mg/L	1	80	19	11 - 94
Nitrobenzene-d5		44.10	mg/L	1	80	55	35 - 114
2-Fluorobiphenyl		43.87	mg/L	1	80	54	43 - 116
2,4,6-Tribromophenol		51.92	mg/L	1	80	64	10 - 123
Terphenyl-d14		56.83	mg/L	1	80	71	33 - 141

Sample: 176212 - 0143-HMW38-0801

Analysis:	8270	Analytical Method:	S 8270C	QC Batch:	QC13335	Date Analyzed:	8/14/01
Analyst:	RC	Preparation Method:	E 3510C	Prep Batch:	PB11374	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Pyridine		<0.005	mg/L	1	0.005
n-Nitrosodimethylamine		<0.005	mg/L	1	0.005
2-Picoline		<0.005	mg/L	1	0.005
Methyl methanesulfonate		<0.005	mg/L	1	0.005
Ethyl methanesulfonate		<0.005	mg/L	1	0.005
Phenol		<0.005	mg/L	1	0.005
Aniline		<0.005	mg/L	1	0.005
bis (2-chloroethyl) ether		<0.005	mg/L	1	0.005
2-Chlorophenol		<0.005	mg/L	1	0.005
1,3-Dichlorobenzene		<0.005	mg/L	1	0.005
1,4-Dichlorobenzene		<0.005	mg/L	1	0.005
Benzyl alcohol		<0.005	mg/L	1	0.005
1,2-Dichlorobenzene		<0.005	mg/L	1	0.005
2-Methylphenol		<0.005	mg/L	1	0.005
bis (2-chloroisopropyl) ether		<0.005	mg/L	1	0.005
4-Methylphenol/3-Methylphenol		<0.005	mg/L	1	0.005
Acetophenone		<0.005	mg/L	1	0.005
n-Nitrosodi-n-propylamine		<0.005	mg/L	1	0.005
Hexachloroethane		<0.005	mg/L	1	0.005
Nitrobenzene		<0.005	mg/L	1	0.005
n-Nitrosopiperidine		<0.005	mg/L	1	0.005
Isophorone		<0.005	mg/L	1	0.005
2-Nitrophenol		<0.005	mg/L	1	0.005
2,4-Dimethylphenol		<0.005	mg/L	1	0.005
bis (2-chloroethoxy) methane		<0.005	mg/L	1	0.005
Benzoic acid		<0.005	mg/L	1	0.005
2,4-Dichlorophenol		<0.005	mg/L	1	0.005
1,2,4-Trichlorobenzene		<0.005	mg/L	1	0.005
a,a-Dimethylphenethylamine		<0.005	mg/L	1	0.005
Naphthalene		<0.005	mg/L	1	0.005
4-Chloroaniline		<0.005	mg/L	1	0.005
2,6-Dichlorophenol		<0.005	mg/L	1	0.005
Hexachlorobutadiene		<0.005	mg/L	1	0.005
n-Nitroso-di-n-butylamine		<0.005	mg/L	1	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	1	0.005
1-Methylnaphthalene		<0.005	mg/L	1	0.005
2-Methylnaphthalene		<0.005	mg/L	1	0.005
1,2,4,5-Tetrachlorobenzene		<0.005	mg/L	1	0.005
Hexachlorocyclopentadiene		<0.005	mg/L	1	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	1	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	1	0.005
2-Chloronaphthalene		<0.005	mg/L	1	0.005
1-Chloronaphthalene		<0.005	mg/L	1	0.005
2-Nitroaniline		<0.005	mg/L	1	0.005
Dimethylphthalate		<0.005	mg/L	1	0.005
Acenaphthylene		<0.005	mg/L	1	0.005
2,6-Dinitrotoluene		<0.005	mg/L	1	0.005
3-Nitroaniline		<0.005	mg/L	1	0.005
Acenaphthene		<0.005	mg/L	1	0.005
2,4-Dinitrophenol		<0.005	mg/L	1	0.005
Dibenzofuran		<0.005	mg/L	1	0.005

Continued ...

... *Continued* Sample: 176212 Analysis: 8270

Param	Flag	Result	Units	Dilution	RDL
Pentachlorobenzene		<0.005	mg/L	1	0.005
4-Nitrophenol		<0.005	mg/L	1	0.005
1-Naphthylamine		<0.005	mg/L	1	0.005
2,4-Dinitrotoluene		<0.005	mg/L	1	0.005
2-Naphthylamine		<0.005	mg/L	1	0.005
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	1	0.005
Fluorene		<0.005	mg/L	1	0.005
Diethylphthalate		<0.005	mg/L	1	0.005
4-Chlorophenyl-phenylether		<0.005	mg/L	1	0.005
4-Nitroaniline		<0.005	mg/L	1	0.005
4,6-Dinitro-2-methylphenol		<0.005	mg/L	1	0.005
Diphenylamine		<0.005	mg/L	1	0.005
Diphenylhydrazine		<0.005	mg/L	1	0.005
4-Bromophenyl-phenylether		<0.005	mg/L	1	0.005
Phenacetin		<0.005	mg/L	1	0.005
Hexachlorobenzene		<0.005	mg/L	1	0.005
4-Aminobiphenyl		<0.005	mg/L	1	0.005
Pentachlorophenol		<0.005	mg/L	1	0.005
Pentachloronitrobenzene		<0.005	mg/L	1	0.005
Pronamide		<0.005	mg/L	1	0.005
Phenanthrene		<0.005	mg/L	1	0.005
Anthracene		<0.005	mg/L	1	0.005
Di-n-butylphthalate		<0.005	mg/L	1	0.005
Fluoranthene		<0.005	mg/L	1	0.005
Benzidine		<0.005	mg/L	1	0.005
Pyrene		<0.005	mg/L	1	0.005
p-Dimethylaminoazobenzene		<0.005	mg/L	1	0.005
Butylbenzylphthalate		<0.005	mg/L	1	0.005
Benzo(a)anthracene		<0.005	mg/L	1	0.005
3,3-Dichlorobenzidine		<0.005	mg/L	1	0.005
Chrysene		<0.005	mg/L	1	0.005
Bis (2-ethylhexyl) phthalate		<0.005	mg/L	1	0.005
Di-n-octylphthalate		<0.005	mg/L	1	0.005
Benzo(b)fluoranthene		<0.005	mg/L	1	0.005
7,12-Dimethylbenz(a)anthracene		<0.005	mg/L	1	0.005
Benzo(k)fluoranthene		<0.005	mg/L	1	0.005
Benzo(a)pyrene		<0.005	mg/L	1	0.005
3-Methylcholanthrene		<0.005	mg/L	1	0.005
Dibenzo(a,j)acridine		<0.005	mg/L	1	0.005
Indeno(1,2,3-cd)pyrene		<0.005	mg/L	1	0.005
Dibenzo(a,h)anthracene		<0.005	mg/L	1	0.005
Benzo(g,h,i)perylene		<0.005	mg/L	1	0.005

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		27.71	mg/L	1	80	34	21 - 100
Phenol-d5		21.45	mg/L	1	80	26	11 - 94
Nitrobenzene-d5		58.34	mg/L	1	80	72	35 - 114
2-Fluorobiphenyl		57.47	mg/L	1	80	71	43 - 116
2,4,6-Tribromophenol		57.12	mg/L	1	80	83	10 - 123
Terphenyl-d14		77.29	mg/L	1	80	96	33 - 141

Sample: 176214 - 0145-HMW41-0801

Analysis:	8270	Analytical Method:	S 8270C	QC Batch:	QC13335	Date Analyzed:	8/14/01
Analyst:	RC	Preparation Method:	E 3510C	Prep Batch:	PB11374	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Pyridine		<0.005	mg/L	1	0.005
n-Nitrosodimethylamine		<0.005	mg/L	1	0.005
2-Picoline		<0.005	mg/L	1	0.005
Methyl methanesulfonate		<0.005	mg/L	1	0.005
Ethyl methanesulfonate		<0.005	mg/L	1	0.005
Phenol		<0.005	mg/L	1	0.005
Aniline		<0.005	mg/L	1	0.005
bis (2-chloroethyl) ether		<0.005	mg/L	1	0.005
2-Chlorophenol		<0.005	mg/L	1	0.005
1,3-Dichlorobenzene		<0.005	mg/L	1	0.005
1,4-Dichlorobenzene		<0.005	mg/L	1	0.005
Benzyl alcohol		<0.005	mg/L	1	0.005
1,2-Dichlorobenzene		<0.005	mg/L	1	0.005
2-Methylphenol		<0.005	mg/L	1	0.005
bis (2-chloroisopropyl) ether		<0.005	mg/L	1	0.005
4-Methylphenol/3-Methylphenol		<0.005	mg/L	1	0.005
Acetophenone		<0.005	mg/L	1	0.005
n-Nitrosodi-n-propylamine		<0.005	mg/L	1	0.005
Hexachloroethane		<0.005	mg/L	1	0.005
Nitrobenzene		<0.005	mg/L	1	0.005
n-Nitrosopiperidine		<0.005	mg/L	1	0.005
Isophorone		<0.005	mg/L	1	0.005
2-Nitrophenol		<0.005	mg/L	1	0.005
2,4-Dimethylphenol		<0.005	mg/L	1	0.005
bis (2-chloroethoxy) methane		<0.005	mg/L	1	0.005
Benzoic acid		<0.005	mg/L	1	0.005
2,4-Dichlorophenol		<0.005	mg/L	1	0.005
1,2,4-Trichlorobenzene		<0.005	mg/L	1	0.005
a,a-Dimethylphenethylamine		<0.005	mg/L	1	0.005
Naphthalene		<0.005	mg/L	1	0.005
4-Chloroaniline		<0.005	mg/L	1	0.005
2,6-Dichlorophenol		<0.005	mg/L	1	0.005
Hexachlorobutadiene		<0.005	mg/L	1	0.005
n-Nitroso-di-n-butylamine		<0.005	mg/L	1	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	1	0.005
1-Methylnaphthalene		<0.005	mg/L	1	0.005
2-Methylnaphthalene		<0.005	mg/L	1	0.005
1,2,4,5-Tetrachlorobenzene		<0.005	mg/L	1	0.005
Hexachlorocyclopentadiene		<0.005	mg/L	1	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	1	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	1	0.005
2-Chloronaphthalene		<0.005	mg/L	1	0.005
1-Chloronaphthalene		<0.005	mg/L	1	0.005
2-Nitroaniline		<0.005	mg/L	1	0.005
Dimethylphthalate		<0.005	mg/L	1	0.005
Acenaphthylene		<0.005	mg/L	1	0.005
2,6-Dinitrotoluene		<0.005	mg/L	1	0.005
3-Nitroaniline		<0.005	mg/L	1	0.005
Acenaphthene		<0.005	mg/L	1	0.005
2,4-Dinitrophenol		<0.005	mg/L	1	0.005
Dibenzofuran		<0.005	mg/L	1	0.005

Continued ...

... *Continued* Sample: 176214 Analysis: 8270

Param	Flag	Result	Units	Dilution	RDL
Pentachlorobenzene		<0.005	mg/L	1	0.005
4-Nitrophenol		<0.005	mg/L	1	0.005
1-Naphthylamine		<0.005	mg/L	1	0.005
2,4-Dinitrotoluene		<0.005	mg/L	1	0.005
2-Naphthylamine		<0.005	mg/L	1	0.005
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	1	0.005
Fluorene		<0.005	mg/L	1	0.005
Diethylphthalate		<0.005	mg/L	1	0.005
4-Chlorophenyl-phenylether		<0.005	mg/L	1	0.005
4-Nitroaniline		<0.005	mg/L	1	0.005
4,6-Dinitro-2-methylphenol		<0.005	mg/L	1	0.005
Diphenylamine		<0.005	mg/L	1	0.005
Diphenylhydrazine		<0.005	mg/L	1	0.005
4-Bromophenyl-phenylether		<0.005	mg/L	1	0.005
Phenacetin		<0.005	mg/L	1	0.005
Hexachlorobenzene		<0.005	mg/L	1	0.005
4-Aminobiphenyl		<0.005	mg/L	1	0.005
Pentachlorophenol		<0.005	mg/L	1	0.005
Pentachloronitrobenzene		<0.005	mg/L	1	0.005
Pronamide		<0.005	mg/L	1	0.005
Phenanthrene		<0.005	mg/L	1	0.005
Anthracene		<0.005	mg/L	1	0.005
Di-n-butylphthalate		<0.005	mg/L	1	0.005
Fluoranthene		<0.005	mg/L	1	0.005
Benzidine		<0.005	mg/L	1	0.005
Pyrene		<0.005	mg/L	1	0.005
p-Dimethylaminoazobenzene		<0.005	mg/L	1	0.005
Butylbenzylphthalate		<0.005	mg/L	1	0.005
Benzo(a)anthracene		<0.005	mg/L	1	0.005
3,3-Dichlorobenzidine		<0.005	mg/L	1	0.005
Chrysene		<0.005	mg/L	1	0.005
Bis (2-ethylhexyl) phthalate		<0.005	mg/L	1	0.005
Di-n-octylphthalate		<0.005	mg/L	1	0.005
Benzo(b)fluoranthene		<0.005	mg/L	1	0.005
7,12-Dimethylbenz(a)anthracene		<0.005	mg/L	1	0.005
Benzo(k)fluoranthene		<0.005	mg/L	1	0.005
Benzo(a)pyrene		<0.005	mg/L	1	0.005
3-Methylcholanthrene		<0.005	mg/L	1	0.005
Dibenzo(a,j)acridine		<0.005	mg/L	1	0.005
Indeno(1,2,3-cd)pyrene		<0.005	mg/L	1	0.005
Dibenzo(a,h)anthracene		<0.005	mg/L	1	0.005
Benzo(g,h,i)perylene		<0.005	mg/L	1	0.005

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		28.36	mg/L	1	80	35	21 - 100
Phenol-d5		23.05	mg/L	1	80	28	11 - 94
Nitrobenzene-d5		55.74	mg/L	1	80	69	35 - 114
2-Fluorobiphenyl		54.25	mg/L	1	80	67	43 - 116
2,4,6-Tribromophenol		57.97	mg/L	1	80	72	10 - 123
Terphenyl-d14		62.40	mg/L	1	80	78	33 - 141

Sample: 176216 - 0143-HMW37-0801

Analysis:	8270	Analytical Method:	S 8270C	QC Batch:	QC13335	Date Analyzed:	8/14/01
Analyst:	RC	Preparation Method:	E 3510C	Prep Batch:	PB11374	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Pyridine		<0.005	mg/L	1	0.005
n-Nitrosodimethylamine		<0.005	mg/L	1	0.005
2-Picoline		<0.005	mg/L	1	0.005
Methyl methanesulfonate		<0.005	mg/L	1	0.005
Ethyl methanesulfonate		<0.005	mg/L	1	0.005
Phenol		<0.005	mg/L	1	0.005
Aniline		<0.005	mg/L	1	0.005
bis (2-chloroethyl) ether		<0.005	mg/L	1	0.005
2-Chlorophenol		<0.005	mg/L	1	0.005
1,3-Dichlorobenzene		<0.005	mg/L	1	0.005
1,4-Dichlorobenzene		<0.005	mg/L	1	0.005
Benzyl alcohol		<0.005	mg/L	1	0.005
1,2-Dichlorobenzene		<0.005	mg/L	1	0.005
2-Methylphenol		<0.005	mg/L	1	0.005
bis (2-chloroisopropyl) ether		<0.005	mg/L	1	0.005
4-Methylphenol/3-Methylphenol		<0.005	mg/L	1	0.005
Acetophenone		<0.005	mg/L	1	0.005
n-Nitrosodi-n-propylamine		<0.005	mg/L	1	0.005
Hexachloroethane		<0.005	mg/L	1	0.005
Nitrobenzene		<0.005	mg/L	1	0.005
n-Nitrosopiperidine		<0.005	mg/L	1	0.005
Isophorone		<0.005	mg/L	1	0.005
2-Nitrophenol		<0.005	mg/L	1	0.005
2,4-Dimethylphenol		<0.005	mg/L	1	0.005
bis (2-chloroethoxy) methane		<0.005	mg/L	1	0.005
Benzoic acid		<0.005	mg/L	1	0.005
2,4-Dichlorophenol		<0.005	mg/L	1	0.005
1,2,4-Trichlorobenzene		<0.005	mg/L	1	0.005
a,a-Dimethylphenethylamine		<0.005	mg/L	1	0.005
Naphthalene		<0.005	mg/L	1	0.005
4-Chloroaniline		<0.005	mg/L	1	0.005
2,6-Dichlorophenol		<0.005	mg/L	1	0.005
Hexachlorobutadiene		<0.005	mg/L	1	0.005
n-Nitroso-di-n-butylamine		<0.005	mg/L	1	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	1	0.005
1-Methylnaphthalene		<0.005	mg/L	1	0.005
2-Methylnaphthalene		<0.005	mg/L	1	0.005
1,2,4,5-Tetrachlorobenzene		<0.005	mg/L	1	0.005
Hexachlorocyclopentadiene		<0.005	mg/L	1	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	1	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	1	0.005
2-Chloronaphthalene		<0.005	mg/L	1	0.005
1-Chloronaphthalene		<0.005	mg/L	1	0.005
2-Nitroaniline		<0.005	mg/L	1	0.005
Dimethylphthalate		<0.005	mg/L	1	0.005
Acenaphthylene		<0.005	mg/L	1	0.005
2,6-Dinitrotoluene		<0.005	mg/L	1	0.005
3-Nitroaniline		<0.005	mg/L	1	0.005
Acenaphthene		<0.005	mg/L	1	0.005
2,4-Dinitrophenol		<0.005	mg/L	1	0.005
Dibenzofuran		<0.005	mg/L	1	0.005

Continued . . .

... *Continued* Sample: 176216 Analysis: 8270

Param	Flag	Result	Units	Dilution	RDL
Pentachlorobenzene		<0.005	mg/L	1	0.005
4-Nitrophenol		<0.005	mg/L	1	0.005
1 Naphthylamine		<0.005	mg/L	1	0.005
2,4-Dinitrotoluene		<0.005	mg/L	1	0.005
2-Naphthylamine		<0.005	mg/L	1	0.005
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	1	0.005
Fluorene		<0.005	mg/L	1	0.005
Diethylphthalate		<0.005	mg/L	1	0.005
4-Chlorophenyl-phenylether		<0.005	mg/L	1	0.005
4-Nitroaniline		<0.005	mg/L	1	0.005
4,6-Dinitro-2-methylphenol		<0.005	mg/L	1	0.005
Diphenylamine		<0.005	mg/L	1	0.005
Diphenylhydrazine		<0.005	mg/L	1	0.005
4-Bromophenyl-phenylether		<0.005	mg/L	1	0.005
Phenacetin		<0.005	mg/L	1	0.005
Hexachlorobenzene		<0.005	mg/L	1	0.005
4-Aminobiphenyl		<0.005	mg/L	1	0.005
Pentachlorophenol		<0.005	mg/L	1	0.005
Pentachloronitrobenzene		<0.005	mg/L	1	0.005
Pronamide		<0.005	mg/L	1	0.005
Phenanthrene		<0.005	mg/L	1	0.005
Anthracene		<0.005	mg/L	1	0.005
Di-n-butylphthalate		<0.005	mg/L	1	0.005
Fluoranthene		<0.005	mg/L	1	0.005
Benzidine		<0.005	mg/L	1	0.005
Pyrene		<0.005	mg/L	1	0.005
p-Dimethylaminoazobenzene		<0.005	mg/L	1	0.005
Butylbenzylphthalate		<0.005	mg/L	1	0.005
Benzo(a)anthracene		<0.005	mg/L	1	0.005
3,3-Dichlorobenzidine		<0.005	mg/L	1	0.005
Chrysene		<0.005	mg/L	1	0.005
Bis (2-ethylhexyl) phthalate		<0.005	mg/L	1	0.005
Di-n-octylphthalate		<0.005	mg/L	1	0.005
Benzo(b)fluoranthene		<0.005	mg/L	1	0.005
7,12-Dimethylbenz(a)anthracene		<0.005	mg/L	1	0.005
Benzo(k)fluoranthene		<0.005	mg/L	1	0.005
Benzo(a)pyrene		<0.005	mg/L	1	0.005
3-Methylcholanthrene		<0.005	mg/L	1	0.005
Dibenzo(a,j)acridine		<0.005	mg/L	1	0.005
Indeno(1,2,3-cd)pyrene		<0.005	mg/L	1	0.005
Dibenzo(a,h)anthracene		<0.005	mg/L	1	0.005
Benzo(g,h,i)perylene		<0.005	mg/L	1	0.005

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		26	mg/L	1	80	32	21 - 100
Phenol-d5		18.36	mg/L	1	80	22	11 - 94
Nitrobenzene-d5		58.01	mg/L	1	80	72	35 - 114
2-Fluorobiphenyl		56.59	mg/L	1	80	70	43 - 116
2,4,6-Tribromophenol		61.88	mg/L	1	80	77	10 - 123
Terphenyl-d14		67.10	mg/L	1	80	83	33 - 141

Sample: 176347 - 0143-HMW40-0801

Analysis:	8270	Analytical Method:	S 8270C	QC Batch:	QC13335	Date Analyzed:	8/14/01
Analyst:	RC	Preparation Method:	E 3510C	Prep Batch:	PB11374	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Pyridine		<0.005	mg/L	1	0.005
n-Nitrosodimethylamine		<0.005	mg/L	1	0.005
2-Picoline		<0.005	mg/L	1	0.005
Methyl methanesulfonate		<0.005	mg/L	1	0.005
Ethyl methanesulfonate		<0.005	mg/L	1	0.005
Phenol		<0.005	mg/L	1	0.005
Aniline		<0.005	mg/L	1	0.005
bis (2-chloroethyl) ether		<0.005	mg/L	1	0.005
2-Chlorophenol		<0.005	mg/L	1	0.005
1,3-Dichlorobenzene		<0.005	mg/L	1	0.005
1,4-Dichlorobenzene		<0.005	mg/L	1	0.005
Benzyl alcohol		<0.005	mg/L	1	0.005
1,2 Dichlorobenzene		<0.005	mg/L	1	0.005
2-Methylphenol		<0.005	mg/L	1	0.005
bis (2-chloroisopropyl) ether		<0.005	mg/L	1	0.005
4-Methylphenol/3-Methylphenol		<0.005	mg/L	1	0.005
Acetophenone		<0.005	mg/L	1	0.005
n-Nitrosodi-n-propylamine		<0.005	mg/L	1	0.005
Hexachloroethane		<0.005	mg/L	1	0.005
Nitrobenzene		<0.005	mg/L	1	0.005
n-Nitrosopiperidine		<0.005	mg/L	1	0.005
Isophorone		<0.005	mg/L	1	0.005
2-Nitrophenol		<0.005	mg/L	1	0.005
2,4-Dimethylphenol		<0.005	mg/L	1	0.005
bis (2-chloroethoxy) methane		<0.005	mg/L	1	0.005
Benzoic acid		<0.005	mg/L	1	0.005
2,4-Dichlorophenol		<0.005	mg/L	1	0.005
1,2,4-Trichlorobenzene		<0.005	mg/L	1	0.005
a,a-Dimethylphenethylamine		<0.005	mg/L	1	0.005
Naphthalene		<0.005	mg/L	1	0.005
4-Chloroaniline		<0.005	mg/L	1	0.005
2,6-Dichlorophenol		<0.005	mg/L	1	0.005
Hexachlorobutadiene		<0.005	mg/L	1	0.005
n-Nitroso-di-n-butylamine		<0.005	mg/L	1	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	1	0.005
1-Methylnaphthalene		<0.005	mg/L	1	0.005
2-Methylnaphthalene		<0.005	mg/L	1	0.005
1,2,4,5-Tetrachlorobenzene		<0.005	mg/L	1	0.005
Hexachlorocyclopentadiene		<0.005	mg/L	1	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	1	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	1	0.005
2-Chloronaphthalene		<0.005	mg/L	1	0.005
1-Chloronaphthalene		<0.005	mg/L	1	0.005
2-Nitroaniline		<0.005	mg/L	1	0.005
Dimethylphthalate		<0.005	mg/L	1	0.005
Acenaphthylene		<0.005	mg/L	1	0.005
2,6-Dinitrotoluene		<0.005	mg/L	1	0.005
3-Nitroaniline		<0.005	mg/L	1	0.005
Acenaphthene		<0.005	mg/L	1	0.005
2,4-Dinitrophenol		<0.005	mg/L	1	0.005
Dibenzofuran		<0.005	mg/L	1	0.005

Continued . . .

... *Continued* Sample: 176347 Analysis: 8270

Param	Flag	Result	Units	Dilution	RDL
Pentachlorobenzene		<0.005	mg/L	1	0.005
4-Nitrophenol		<0.005	mg/L	1	0.005
1-Naphthylamine		<0.005	mg/L	1	0.005
2,4-Dinitrotoluene		<0.005	mg/L	1	0.005
2-Naphthylamine		<0.005	mg/L	1	0.005
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	1	0.005
Fluorene		<0.005	mg/L	1	0.005
Diethylphthalate		<0.005	mg/L	1	0.005
4-Chlorophenyl-phenylether		<0.005	mg/L	1	0.005
4-Nitroaniline		<0.005	mg/L	1	0.005
4,6-Dinitro-2-methylphenol		<0.005	mg/L	1	0.005
Diphenylamine		<0.005	mg/L	1	0.005
Diphenylhydrazine		<0.005	mg/L	1	0.005
4-Bromophenyl-phenylether		<0.005	mg/L	1	0.005
Phenacetin		<0.005	mg/L	1	0.005
Hexachlorobenzene		<0.005	mg/L	1	0.005
4-Aminobiphenyl		<0.005	mg/L	1	0.005
Pentachlorophenol		<0.005	mg/L	1	0.005
Pentachloronitrobenzene		<0.005	mg/L	1	0.005
Pronamide		<0.005	mg/L	1	0.005
Phenanthrene		<0.005	mg/L	1	0.005
Anthracene		<0.005	mg/L	1	0.005
Di-n-butylphthalate		<0.005	mg/L	1	0.005
Fluoranthene		<0.005	mg/L	1	0.005
Benzidine		<0.005	mg/L	1	0.005
Pyrene		<0.005	mg/L	1	0.005
p-Dimethylaminoazobenzene		<0.005	mg/L	1	0.005
Butylbenzylphthalate		<0.005	mg/L	1	0.005
Benzo(a)anthracene		<0.005	mg/L	1	0.005
3,3-Dichlorobenzidine		<0.005	mg/L	1	0.005
Chrysene		<0.005	mg/L	1	0.005
Bis (2-ethylhexyl) phthalate		<0.005	mg/L	1	0.005
Di-n-octylphthalate		<0.005	mg/L	1	0.005
Benzo(b)fluoranthene		<0.005	mg/L	1	0.005
7,12-Dimethylbenz(a)anthracene		<0.005	mg/L	1	0.005
Benzo(k)fluoranthene		<0.005	mg/L	1	0.005
Benzo(a)pyrene		<0.005	mg/L	1	0.005
3-Methylcholanthrene		<0.005	mg/L	1	0.005
Dibenzo(a,j)acridine		<0.005	mg/L	1	0.005
Indeno(1,2,3-cd)pyrene		<0.005	mg/L	1	0.005
Dibenzo(a,h)anthracene		<0.005	mg/L	1	0.005
Benzo(g,h,i)perylene		<0.005	mg/L	1	0.005

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		26.90	mg/L	1	80	33	21 - 100
Phenol-d5		21.54	mg/L	1	80	26	11 - 94
Nitrobenzene-d5		54.54	mg/L	1	80	68	35 - 114
2-Fluorobiphenyl		52.27	mg/L	1	80	65	43 - 116
2,4,6-Tribromophenol		60.21	mg/L	1	80	75	10 - 123
Terphenyl-d14		66.39	mg/L	1	80	82	33 - 141

Sample: 176349 - 0143-HMW36-0801

Analysis:	8270	Analytical Method:	S 8270C	QC Batch:	QC13335	Date Analyzed:	8/14/01
Analyst:	RC	Preparation Method:	E 3510C	Prep Batch:	PB11374	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Pyridine		<0.005	mg/L	1	0.005
n-Nitrosodimethylamine		<0.005	mg/L	1	0.005
2-Picoline		<0.005	mg/L	1	0.005
Methyl methanesulfonate		<0.005	mg/L	1	0.005
Ethyl methanesulfonate		<0.005	mg/L	1	0.005
Phenol		<0.005	mg/L	1	0.005
Aniline		<0.005	mg/L	1	0.005
bis (2-chloroethyl) ether		<0.005	mg/L	1	0.005
2-Chlorophenol		<0.005	mg/L	1	0.005
1,3-Dichlorobenzene		<0.005	mg/L	1	0.005
1,4-Dichlorobenzene		<0.005	mg/L	1	0.005
Benzyl alcohol		<0.005	mg/L	1	0.005
1,2 Dichlorobenzene		<0.005	mg/L	1	0.005
2-Methylphenol		<0.005	mg/L	1	0.005
bis (2-chloroisopropyl) ether		<0.005	mg/L	1	0.005
4-Methylphenol/3-Methylphenol		<0.005	mg/L	1	0.005
Acetophenone		<0.005	mg/L	1	0.005
n-Nitrosodi-n-propylamine		<0.005	mg/L	1	0.005
Hexachloroethane		<0.005	mg/L	1	0.005
Nitrobenzene		<0.005	mg/L	1	0.005
n-Nitrosopiperidine		<0.005	mg/L	1	0.005
Isophorone		<0.005	mg/L	1	0.005
2-Nitrophenol		<0.005	mg/L	1	0.005
2,4-Dimethylphenol		<0.005	mg/L	1	0.005
bis (2-chloroethoxy) methane		<0.005	mg/L	1	0.005
Benzoic acid		<0.005	mg/L	1	0.005
2,4-Dichlorophenol		<0.005	mg/L	1	0.005
1,2,4-Trichlorobenzene		<0.005	mg/L	1	0.005
a,a-Dimethylphenethylamine		<0.005	mg/L	1	0.005
Naphthalene		<0.005	mg/L	1	0.005
4-Chloroaniline		<0.005	mg/L	1	0.005
2,6-Dichlorophenol		<0.005	mg/L	1	0.005
Hexachlorobutadiene		<0.005	mg/L	1	0.005
n-Nitroso-di-n-butylamine		<0.005	mg/L	1	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	1	0.005
1-Methylnaphthalene		<0.005	mg/L	1	0.005
2-Methylnaphthalene		<0.005	mg/L	1	0.005
1,2,4,5-Tetrachlorobenzene		<0.005	mg/L	1	0.005
Hexachlorocyclopentadiene		<0.005	mg/L	1	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	1	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	1	0.005
2-Chloronaphthalene		<0.005	mg/L	1	0.005
1-Chloronaphthalene		<0.005	mg/L	1	0.005
2-Nitroaniline		<0.005	mg/L	1	0.005
Dimethylphthalate		<0.005	mg/L	1	0.005
Acenaphthylene		<0.005	mg/L	1	0.005
2,6-Dinitrotoluene		<0.005	mg/L	1	0.005
3-Nitroaniline		<0.005	mg/L	1	0.005
Acenaphthene		<0.005	mg/L	1	0.005
2,4-Dinitrophenol		<0.005	mg/L	1	0.005
Dibenzofuran		<0.005	mg/L	1	0.005

Continued . . .

... *Continued* Sample: 176349 Analysis: 8270

Param	Flag	Result	Units	Dilution	RDL
Pentachlorobenzene		<0.005	mg/L	1	0.005
4-Nitrophenol		<0.005	mg/L	1	0.005
1-Naphthylamine		<0.005	mg/L	1	0.005
2,4-Dinitrotoluene		<0.005	mg/L	1	0.005
2-Naphthylamine		<0.005	mg/L	1	0.005
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	1	0.005
Fluorene		<0.005	mg/L	1	0.005
Diethylphthalate		<0.005	mg/L	1	0.005
4-Chlorophenyl-phenylether		<0.005	mg/L	1	0.005
4-Nitroaniline		<0.005	mg/L	1	0.005
4,6-Dinitro-2-methylphenol		<0.005	mg/L	1	0.005
Diphenylamine		<0.005	mg/L	1	0.005
Diphenylhydrazine		<0.005	mg/L	1	0.005
4-Bromophenyl-phenylether		<0.005	mg/L	1	0.005
Phenacetin		<0.005	mg/L	1	0.005
Hexachlorobenzene		<0.005	mg/L	1	0.005
4-Aminobiphenyl		<0.005	mg/L	1	0.005
Pentachlorophenol		<0.005	mg/L	1	0.005
Pentachloronitrobenzene		<0.005	mg/L	1	0.005
Pronamide		<0.005	mg/L	1	0.005
Phenanthrene		<0.005	mg/L	1	0.005
Anthracene		<0.005	mg/L	1	0.005
Di-n-butylphthalate		<0.005	mg/L	1	0.005
Fluoranthene		<0.005	mg/L	1	0.005
Benzidine		<0.005	mg/L	1	0.005
Pyrene		<0.005	mg/L	1	0.005
p-Dimethylaminoazobenzene		<0.005	mg/L	1	0.005
Butylbenzylphthalate		<0.005	mg/L	1	0.005
Benzo(a)anthracene		<0.005	mg/L	1	0.005
3,3-Dichlorobenzidine		<0.005	mg/L	1	0.005
Chrysene		<0.005	mg/L	1	0.005
Bis (2-ethylhexyl) phthalate		<0.005	mg/L	1	0.005
Di-n-octylphthalate		<0.005	mg/L	1	0.005
Benzo(b)fluoranthene		<0.005	mg/L	1	0.005
7,12-Dimethylbenz(a)anthracene		<0.005	mg/L	1	0.005
Benzo(k)fluoranthene		<0.005	mg/L	1	0.005
Benzo(a)pyrene		<0.005	mg/L	1	0.005
3-Methylcholanthrene		<0.005	mg/L	1	0.005
Dibenzo(a,j)acridine		<0.005	mg/L	1	0.005
Indeno(1,2,3-cd)pyrene		<0.005	mg/L	1	0.005
Dibenzo(a,h)anthracene		<0.005	mg/L	1	0.005
Benzo(g,h,i)perylene		<0.005	mg/L	1	0.005

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		25.03	mg/L	1	80	31	21 - 100
Phenol-d5		20.44	mg/L	1	80	25	11 - 94
Nitrobenzene-d5		57.97	mg/L	1	80	72	35 - 114
2-Fluorobiphenyl		51.03	mg/L	1	80	63	43 - 116
2,4,6-Tribromophenol		61	mg/L	1	80	76	10 - 123
Terphenyl-d14		56.20	mg/L	1	80	70	33 - 141

Quality Control Report
Method Blank

Method Blank

QCBatch: QC13335

Param	Flag	Results	Units	Reporting Limit
Pyridine		<0.005	mg/L	0.005
n-Nitrosodimethylamine		<0.005	mg/L	0.005
2-Picoline		<0.005	mg/L	0.005
Methyl methanesulfonate		<0.005	mg/L	0.005
Ethyl methanesulfonate		<0.005	mg/L	0.005
Phenol		<0.005	mg/L	0.005
Aniline		<0.005	mg/L	0.005
bis (2-chloroethyl) ether		<0.005	mg/L	0.005
2-Chlorophenol		<0.005	mg/L	0.005
1,3-Dichlorobenzene		<0.005	mg/L	0.005
1,4-Dichlorobenzene		<0.005	mg/L	0.005
Benzyl alcohol		<0.005	mg/L	0.005
1,2-Dichlorobenzene		<0.005	mg/L	0.005
2-Methylphenol		<0.005	mg/L	0.005
bis (2-chloroisopropyl) ether		<0.005	mg/L	0.005
4-Methylphenol/3-Methylphenol		<0.005	mg/L	0.005
Acetophenone		<0.005	mg/L	0.005
n-Nitrosodi-n-propylamine		<0.005	mg/L	0.005
Hexachloroethane		<0.005	mg/L	0.005
Nitrobenzene		<0.005	mg/L	0.005
n-Nitrosopiperidine		<0.005	mg/L	0.005
Isophorone		<0.005	mg/L	0.005
2-Nitrophenol		<0.005	mg/L	0.005
2,4-Dimethylphenol		<0.005	mg/L	0.005
bis (2-chloroethoxy) methane		<0.005	mg/L	0.005
Benzoic acid		<0.005	mg/L	0.005
2,4-Dichlorophenol		<0.005	mg/L	0.005
1,2,4-Trichlorobenzene		<0.005	mg/L	0.005
a,a-Dimethylphenethylamine		<0.005	mg/L	0.005
Naphthalene		<0.005	mg/L	0.005
4-Chloroaniline		<0.005	mg/L	0.005
2,6-Dichlorophenol		<0.005	mg/L	0.005
Hexachlorobutadiene		<0.005	mg/L	0.005
n-Nitroso-di-n-butylamine		<0.005	mg/L	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	0.005
1-Methylnaphthalene		<0.005	mg/L	0.005
2-Methylnaphthalene		<0.005	mg/L	0.005
1,2,4,5-Tetrachlorobenzene		<0.005	mg/L	0.005
Hexachlorocyclopentadiene		<0.005	mg/L	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	0.005
2-Chloronaphthalene		<0.005	mg/L	0.005
1-Chloronaphthalene		<0.005	mg/L	0.005
2-Nitroaniline		<0.005	mg/L	0.005
Dimethylphthalate		<0.005	mg/L	0.005
Acenaphthylene		<0.005	mg/L	0.005
2,6-Dinitrotoluene		<0.005	mg/L	0.005
3-Nitroaniline		<0.005	mg/L	0.005

Continued ...

... Continued

Param	Flag	Results	Units	Reporting Limit
Acenaphthene		<0.005	mg/L	0.005
2,4-Dinitrophenol		<0.005	mg/L	0.005
Dibenzofuran		<0.005	mg/L	0.005
Pentachlorobenzene		<0.005	mg/L	0.005
4-Nitrophenol		<0.005	mg/L	0.005
1-Naphthylamine		<0.005	mg/L	0.005
2,4-Dinitrotoluene		<0.005	mg/L	0.005
2-Naphthylamine		<0.005	mg/L	0.005
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	0.005
Fluorene		<0.005	mg/L	0.005
Diethylphthalate		<0.005	mg/L	0.005
4-Chlorophenyl-phenylether		<0.005	mg/L	0.005
4-Nitroaniline		<0.005	mg/L	0.005
4,6-Dinitro-2-methylphenol		<0.005	mg/L	0.005
Diphenylamine		<0.005	mg/L	0.005
Diphenylhydrazine		<0.005	mg/L	0.005
4-Bromophenyl-phenylether		<0.005	mg/L	0.005
Phenacetin		<0.005	mg/L	0.005
Hexachlorobenzene		<0.005	mg/L	0.005
4-Aminobiphenyl		<0.005	mg/L	0.005
Pentachlorophenol		<0.005	mg/L	0.005
Pentachloronitrobenzene		<0.005	mg/L	0.005
Pronamide		<0.005	mg/L	0.005
Phenanthrene		<0.005	mg/L	0.005
Anthracene		<0.005	mg/L	0.005
Di-n-butylphthalate		<0.005	mg/L	0.005
Fluoranthene		<0.005	mg/L	0.005
Benzidine		<0.005	mg/L	0.005
Pyrene		<0.005	mg/L	0.005
p-Dimethylaminoazobenzene		<0.005	mg/L	0.005
Butylbenzylphthalate		<0.005	mg/L	0.005
Benzo(a)anthracene		<0.005	mg/L	0.005
3,3-Dichlorobenzidine		<0.005	mg/L	0.005
Chrysene		<0.005	mg/L	0.005
Bis (2-ethylhexyl) phthalate		<0.005	mg/L	0.005
Di-n-octylphthalate		<0.005	mg/L	0.005
Benzo(b)fluoranthene		<0.005	mg/L	0.005
7,12-Dimethylbenz(a)anthracene		<0.005	mg/L	0.005
Benzo(k)fluoranthene		<0.005	mg/L	0.005
Benzo(a)pyrene		<0.005	mg/L	0.005
3-Methylcholanthrene		<0.005	mg/L	0.005
Dibenzo(a,j)acridine		<0.005	mg/L	0.005
Indeno(1,2,3-cd)pyrene		<0.005	mg/L	0.005
Dibenzo(a,h)anthracene		<0.005	mg/L	0.005
Benzo(g,h,i)perylene		<0.005	mg/L	0.005

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		33.12	mg/L	1	80	41	21 - 100
Phenol-d5		20.48	mg/L	1	80	25	11 - 94
Nitrobenzene-d5		74.98	mg/L	1	80	93	35 - 114
2-Fluorobiphenyl		71.69	mg/L	1	80	89	43 - 116
2,4,6-Tribromophenol		71.66	mg/L	1	80	89	10 - 123

Continued ...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Terphenyl-d14		95.52	mg/L	1	80	119	33 - 141

Quality Control Report
Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes

QCBatch: QC13335

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Phenol	14.35	14.05	mg/L	1	80	<0.005	17	2	5 - 112	20
2-Chlorophenol	44.09	42.05	mg/L	1	80	<0.005	55	4	23 - 134	20
1,4-Dichlorobenzene	42.47	42.45	mg/L	1	80	<0.005	53	0	20 - 124	20
n-Nitrosodi-n-propylamine	53.9	47.63	mg/L	1	80	<0.005	67	12	0 - 230	20
1,2,4-Trichlorobenzene	43.82	44.53	mg/L	1	80	<0.005	54	1	44 - 142	20
4-Chloro-3-methylphenol	50.55	44.49	mg/L	1	80	<0.005	63	12	22 - 147	20
Acenaphthene	47.34	47.59	mg/L	1	80	<0.005	59	0	47 - 145	20
4-Nitrophenol	6.71	6.09	mg/L	1	80	<0.005	8	9	0 - 132	20
2,4-Dinitrotoluene	53.02	49.35	mg/L	1	80	<0.005	66	7	39 - 139	20
Pentachlorophenol	38.61	37.51	mg/L	1	80	<0.005	48	2	14 - 176	20
Pyrene	64.47	52.72	mg/L	1	80	<0.005	80	20	52 - 115	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
2-Fluorophenol	24.47	24.57	mg/L	1	80	30	30	21 - 100
Phenol-d5	18.06	17.34	mg/L	1	80	22	21	11 - 94
Nitrobenzene-d5	56.92	55.32	mg/L	1	80	71	69	35 - 114
2-Fluorobiphenyl	55.81	56.24	mg/L	1	80	69	70	43 - 116
2,4,6-Tribromophenol	60.46	54.55	mg/L	1	80	75	68	10 - 123
Terphenyl-d14	81.31	64.48	mg/L	1	80	101	80	33 - 141

Quality Control Report
Continuing Calibration Verification Standards

CCV (1)

QCBatch: QC13335

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Phenol		mg/L	60	64.32	107	80 - 120	8/14/01
1,4-Dichlorobenzene		mg/L	60	62.03	103	80 - 120	8/14/01
2-Nitrophenol		mg/L	60	58.72	97	80 - 120	8/14/01
2,4-Dichlorophenol		mg/L	60	62.49	104	80 - 120	8/14/01
Hexachlorobutadiene		mg/L	60	59.63	99	80 - 120	8/14/01
4-Chloro-3-methylphenol		mg/L	60	63.64	106	80 - 120	8/14/01
2,4,6-Trichlorophenol		mg/L	60	61.66	102	80 - 120	8/14/01
Acenaphthene		mg/L	60	60.84	101	80 - 120	8/14/01
Diphenylamine		mg/L	60	60.66	101	80 - 120	8/14/01
Pentachlorophenol		mg/L	60	65.29	108	80 - 120	8/14/01

Continued ...

... Continued

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Fluoranthene		mg/L	60	60.5	100	80 - 120	8/14/01
Di-n-octylphthalate		mg/L	60	62.94	104	80 - 120	8/14/01
Benzo(a)pyrene		mg/L	60	61.39	102	80 - 120	8/14/01
2-Fluorophenol		mg/L	60	66.5	110	80 - 120	8/14/01
Phenol-d5		mg/L	60	63.47	105	80 - 120	8/14/01
Nitrobenzene-d5		mg/L	60	61.9	103	80 - 120	8/14/01
2-Fluorobiphenyl		mg/L	60	60.3	100	80 - 120	8/14/01
2,4,6-Tribromophenol		mg/L	60	63.34	105	80 - 120	8/14/01
Terphenyl-d14		mg/L	60	59.00	98	80 - 120	8/14/01

Explosives Results and Quality Control

TRACEANALYSIS, INC.

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Analytical and Quality Control Report

Karen Costa
Mevatec
P.O. Box 399 Bldg. 126
WSMR, NM 88002

Report Date: August 31, 2001

Order ID Number: A01080205

Project Number: 800 GG
Project Name: Ground Water Sampling at Helstf Chrome Site
Project Location: N/A

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
176140	0143-HMW43-0701	Water	7/31/01	15:02	8/1/01
176142	0143-HMW13-0701-QC	Water	7/31/01	14:37	8/1/01
176144	0143-HMW13-0701	Water	7/31/01	14:37	8/1/01
176146	0143-HMW39-0701-QC	Water	7/31/01	12:07	8/1/01
176148	0143-HMW39-0701	Water	7/31/01	12:07	8/1/01
176150	0143-HMW11-0701	Water	7/31/01	10:54	8/1/01
176212	0143-HMW38-0801	Water	8/1/01	1:17	8/2/01
176214	0145-HMW41-0801	Water	8/1/01	13:28	8/2/01
176216	0143-HMW37-0801	Water	8/1/01	1:17	8/2/01
176347	0143-HMW40-0801	Water	8/2/01	12:11	8/3/01
176349	0143-HMW36-0801	Water	8/2/01	11:17	8/3/01

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 11 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of TraceAnalysis, Inc.

Michael T. Alvarez
Dr. Blair Leftwich, Director

Analytical Report

Sample: 176140 - 0143-HMW43-0701

Analysis:	8330	Analytical Method:	8330-C18	QC Batch:	QC13433	Date Analyzed:	8/8/01
Analyst:	JH	Preparation Method:	3535A	Prep Batch:	PB11445	Date Prepared:	8/3/01

Param	Flag	Result	Units	Dilution	RDL
HMX		<0.5	μg/L	1	0.50
RDX		<0.5	μg/L	1	0.50
1,3,5-trinitrobenzene		<0.5	μg/L	1	0.50
1,3-dinitrobenzene		<0.5	μg/L	1	0.50
tetryl		<0.5	μg/L	1	0.50
Nitrobenzene		<0.5	μg/L	1	0.50
TNT		<0.5	μg/L	1	0.50
4-amino-DNT / 2-amino-DNT		<0.5	μg/L	1	0.50
2,6-DNT / 2,4-DNT		<0.5	μg/L	1	0.50
2-NT		<0.5	μg/L	1	0.50
4-NT		<0.5	μg/L	1	0.50
3-NT		<0.5	μg/L	1	0.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-dinitrobenzene		1.902	μg/L	1	2.50	76	46 - 144

Sample: 176142 - 0143-HMW13-0701-QC

Analysis:	8330	Analytical Method:	8330-C18	QC Batch:	QC13433	Date Analyzed:	8/8/01
Analyst:	JH	Preparation Method:	3535A	Prep Batch:	PB11445	Date Prepared:	8/3/01

Param	Flag	Result	Units	Dilution	RDL
HMX		<0.5	μg/L	1	0.50
RDX		<0.5	μg/L	1	0.50
1,3,5-trinitrobenzene		<0.5	μg/L	1	0.50
1,3-dinitrobenzene		<0.5	μg/L	1	0.50
tetryl		<0.5	μg/L	1	0.50
Nitrobenzene		<0.5	μg/L	1	0.50
TNT		<0.5	μg/L	1	0.50
4-amino-DNT / 2-amino-DNT		<0.5	μg/L	1	0.50
2,6-DNT / 2,4-DNT		<0.5	μg/L	1	0.50
2-NT		<0.5	μg/L	1	0.50
4-NT		<0.5	μg/L	1	0.50
3-NT		<0.5	μg/L	1	0.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-dinitrobenzene		1.736	μg/L	1	2.50	69	46 - 144

Sample: 176144 - 0143-HMW13-0701

Analysis:	8330	Analytical Method:	8330-C18	QC Batch:	QC13433	Date Analyzed:	8/8/01
Analyst:	JH	Preparation Method:	3535A	Prep Batch:	PB11445	Date Prepared:	8/3/01

Param	Flag	Result	Units	Dilution	RDL
HMX		<0.5	μg/L	1	0.50
RDX		<0.5	μg/L	1	0.50
1,3,5-trinitrobenzene		<0.5	μg/L	1	0.50
1,3-dinitrobenzene		<0.5	μg/L	1	0.50
tetryl		<0.5	μg/L	1	0.50
Nitrobenzene		<0.5	μg/L	1	0.50
TNT		<0.5	μg/L	1	0.50
4-amino-DNT / 2-amino-DNT		<0.5	μg/L	1	0.50
2,6-DNT / 2,4-DNT		<0.5	μg/L	1	0.50
2-NT		<0.5	μg/L	1	0.50
4-NT		<0.5	μg/L	1	0.50
3-NT		<0.5	μg/L	1	0.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-dinitrobenzene		1.769	μg/L	1	2.50	70	46 - 144

Sample: 176146 - 0143-HMW39-0701-QC

Analysis:	8330	Analytical Method:	8330-C18	QC Batch:	QC13433	Date Analyzed:	8/8/01
Analyst:	JH	Preparation Method:	3535A	Prep Batch:	PB11445	Date Prepared:	8/3/01

Param	Flag	Result	Units	Dilution	RDL
HMX		<0.5	μg/L	1	0.50
RDX		<0.5	μg/L	1	0.50
1,3,5-trinitrobenzene		<0.5	μg/L	1	0.50
1,3-dinitrobenzene		<0.5	μg/L	1	0.50
tetryl		<0.5	μg/L	1	0.50
Nitrobenzene		<0.5	μg/L	1	0.50
TNT		<0.5	μg/L	1	0.50
4-amino-DNT / 2-amino-DNT		<0.5	μg/L	1	0.50
2,6-DNT / 2,4-DNT		<0.5	μg/L	1	0.50
2-NT		<0.5	μg/L	1	0.50
4-NT		<0.5	μg/L	1	0.50
3-NT		<0.5	μg/L	1	0.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-dinitrobenzene		1.843	μg/L	1	2.50	73	46 - 144

Sample: 176148 - 0143-HMW39-0701

Analysis:	8330	Analytical Method:	8330-C18	QC Batch:	QC13433	Date Analyzed:	8/8/01
Analyst:	JH	Preparation Method:	3535A	Prep Batch:	PB11445	Date Prepared:	8/3/01

Param	Flag	Result	Units	Dilution	RDL
HMX		<0.5	μg/L	1	0.50
RDX		<0.5	μg/L	1	0.50
1,3,5-trinitrobenzene		<0.5	μg/L	1	0.50
1,3-dinitrobenzene		<0.5	μg/L	1	0.50
tetryl		<0.5	μg/L	1	0.50

Continued ...

... Continued Sample: 176148 Analysis: 8330

Param	Flag	Result	Units	Dilution	RDL
Nitrobenzene		<0.5	μg/L	1	0.50
TNT		<0.5	μg/L	1	0.50
4-amino-DNT / 2-amino-DNT		<0.5	μg/L	1	0.50
2,6-DNT / 2,4-DNT		<0.5	μg/L	1	0.50
2-NT		<0.5	μg/L	1	0.50
4-NT		<0.5	μg/L	1	0.50
3-NT		<0.5	μg/L	1	0.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-dinitrobenzene		1.90	μg/L	1	2.50	76	46 - 144

Sample: 176150 - 0143-HMW11-0701

Analysis:	8330	Analytical Method:	8330-C18	QC Batch:	QC13433	Date Analyzed:	8/8/01
Analyst:	JH	Preparation Method:	3535A	Prep Batch:	PB11445	Date Prepared:	8/3/01

Param	Flag	Result	Units	Dilution	RDL
HMX		<0.5	μg/L	1	0.50
RDX		<0.5	μg/L	1	0.50
1,3,5-trinitrobenzene		<0.5	μg/L	1	0.50
1,3-dinitrobenzene		<0.5	μg/L	1	0.50
tetryl		<0.5	μg/L	1	0.50
Nitrobenzene		<0.5	μg/L	1	0.50
TNT		<0.5	μg/L	1	0.50
4-amino-DNT / 2-amino-DNT		<0.5	μg/L	1	0.50
2,6-DNT / 2,4-DNT		<0.5	μg/L	1	0.50
2-NT		<0.5	μg/L	1	0.50
4-NT		<0.5	μg/L	1	0.50
3-NT		<0.5	μg/L	1	0.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-dinitrobenzene		1.922	μg/L	1	2.50	76	46 - 144

Sample: 176212 - 0143-HMW38-0801

Analysis:	8330	Analytical Method:	8330-C18	QC Batch:	QC13433	Date Analyzed:	8/8/01
Analyst:	JH	Preparation Method:	3535A	Prep Batch:	PB11445	Date Prepared:	8/3/01

Param	Flag	Result	Units	Dilution	RDL
HMX		<0.5	μg/L	1	0.50
RDX		<0.5	μg/L	1	0.50
1,3,5-trinitrobenzene		<0.5	μg/L	1	0.50
1,3-dinitrobenzene		<0.5	μg/L	1	0.50
tetryl		<0.5	μg/L	1	0.50
Nitrobenzene		<0.5	μg/L	1	0.50
TNT		<0.5	μg/L	1	0.50
4-amino-DNT / 2-amino-DNT		<0.5	μg/L	1	0.50
2,6-DNT / 2,4-DNT		<0.5	μg/L	1	0.50

Continued ...

... *Continued* Sample: 176212 Analysis: 8330

Param	Flag	Result	Units	Dilution	RDL
2-NT		<0.5	μg/L	1	0.50
4-NT		<0.5	μg/L	1	0.50
3-NT		<0.5	μg/L	1	0.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-dinitrobenzene	[1]	0.961	μg/L	1	2.50	38	46 - 144

Sample: 176214 - 0145-HMW41-0801

Analysis:	8330	Analytical Method:	8330-C18	QC Batch:	QC13433	Date Analyzed:	8/8/01
Analyst:	JH	Preparation Method:	3535A	Prep Batch:	PB11445	Date Prepared:	8/3/01

Param	Flag	Result	Units	Dilution	RDL
HMX		<0.5	μg/L	1	0.50
RDX		<0.5	μg/L	1	0.50
1,3,5-trinitrobenzene		<0.5	μg/L	1	0.50
1,3-dinitrobenzene		<0.5	μg/L	1	0.50
tetryl		<0.5	μg/L	1	0.50
Nitrobenzene		<0.5	μg/L	1	0.50
TNT		<0.5	μg/L	1	0.50
4-amino-DNT / 2-amino-DNT		<0.5	μg/L	1	0.50
2,6-DNT / 2,4-DNT		<0.5	μg/L	1	0.50
2-NT		<0.5	μg/L	1	0.50
4-NT		<0.5	μg/L	1	0.50
3-NT		<0.5	μg/L	1	0.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-dinitrobenzene		1.504	μg/L	1	2.50	60	46 - 144

Sample: 176216 - 0143-HMW37-0801

Analysis:	8330	Analytical Method:	8330-C18	QC Batch:	QC13433	Date Analyzed:	8/8/01
Analyst:	JH	Preparation Method:	3535A	Prep Batch:	PB11445	Date Prepared:	8/3/01

Param	Flag	Result	Units	Dilution	RDL
HMX		<0.5	μg/L	1	0.50
RDX		<0.5	μg/L	1	0.50
1,3,5-trinitrobenzene		<0.5	μg/L	1	0.50
1,3-dinitrobenzene		<0.5	μg/L	1	0.50
tetryl		<0.5	μg/L	1	0.50
Nitrobenzene		<0.5	μg/L	1	0.50
TNT		<0.5	μg/L	1	0.50
4-amino-DNT / 2-amino-DNT		<0.5	μg/L	1	0.50
2,6-DNT / 2,4-DNT		<0.5	μg/L	1	0.50
2-NT		<0.5	μg/L	1	0.50
4-NT		<0.5	μg/L	1	0.50
3-NT		<0.5	μg/L	1	0.50

[1]Surrogate below standard range due to complications during extraction.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-dinitrobenzene		1.973	μg/L	1	2.50	78	46 - 144

Sample: 176347 - 0143-HMW40-0801

Analysis:	8330	Analytical Method:	8330-C18	QC Batch:	QC13430	Date Analyzed:	8/15/01
Analyst:	JH	Preparation Method:	3535A	Prep Batch:	PB11446	Date Prepared:	8/9/01

Param	Flag	Result	Units	Dilution	RDL
HMX		<5.0	μg/L	10	0.50
RDX		<5.0	μg/L	10	0.50
1,3,5-trinitrobenzene		<5.0	μg/L	10	0.50
1,3-dinitrobenzene		<5.0	μg/L	10	0.50
tetryl		<5.0	μg/L	10	0.50
Nitrobenzene		<5.0	μg/L	10	0.50
TNT		<5.0	μg/L	10	0.50
4-amino-DNT / 2-amino-DNT		<5.0	μg/L	10	0.50
2,6-DNT / 2,4-DNT		<5.0	μg/L	10	0.50
2-NT		<5.0	μg/L	10	0.50
4-NT		<5.0	μg/L	10	0.50
3-NT		<5.0	μg/L	10	0.50
Test Comments	[2]	Note		1	

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-dinitrobenzene		1.219	μg/L	1	2.50	48	46 - 144

Sample: 176349 - 0143-HMW36-0801

Analysis:	8330	Analytical Method:	8330-C18	QC Batch:	QC13430	Date Analyzed:	8/15/01
Analyst:	JH	Preparation Method:	3535A	Prep Batch:	PB11446	Date Prepared:	8/9/01

Param	Flag	Result	Units	Dilution	RDL
HMX		<50.0	μg/L	100	0.50
RDX		<50.0	μg/L	100	0.50
1,3,5-trinitrobenzene		<50.0	μg/L	100	0.50
1,3-dinitrobenzene		<50.0	μg/L	100	0.50
tetryl		<50.0	μg/L	100	0.50
Nitrobenzene		<50.0	μg/L	100	0.50
TNT		<50.0	μg/L	100	0.50
4-amino-DNT / 2-amino-DNT		<50.0	μg/L	100	0.50
2,6-DNT / 2,4-DNT		<50.0	μg/L	100	0.50
2-NT		<50.0	μg/L	100	0.50
4-NT		<50.0	μg/L	100	0.50
3-NT		<50.0	μg/L	100	0.50
Test Comments	[3]	Note		1	

[2](10X) dlution due to unknown analytes in matrix
[3](100X) dilution due to unknown analytes in matrix

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-dinitrobenzene	[4]	4.479	μg/L	1	2.50	179	46 - 144

[4]Surrogate above standard range due to coelution with unknown analytes.

Laboratory Control Spikes

QCBatch: QC13430

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
HMX	.221	.854	µg/L	1	2.50	<0.5	8	117	0 - 133	20
RDX	.252	1.445	µg/L	1	2.50	<0.5	10	140	0 - 112	20
1,3,5-trinitrobenzene	1.045	3.273	µg/L	1	2.50	<0.5	41	103	0 - 185	20
1,3-dinitrobenzene	1.013	3.245	µg/L	1	2.50	<0.5	40	104	27 - 143	20
tetryl	.777	2.674	µg/L	1	2.50	<0.5	31	109	19 - 141	20
Nitrobenzene	.661	2.282	µg/L	1	2.50	<0.5	26	110	15 - 161	20
TNT	.567	2.279	µg/L	1	2.50	<0.5	22	120	6 - 149	20
4-amino-DNT / 2-amino-DNT	.633	2.413	µg/L	1	2.50	<0.5	25	116	52 - 132	20
2,6-DNT / 2,4-DNT	.616	2.496	µg/L	1	2.50	<0.5	24	120	44 - 133	20
2-NT	.590	2.478	µg/L	1	2.50	<0.5	23	123	29 - 146	20
4-NT	.628	2.697	µg/L	1	2.50	<0.5	25	124	48 - 139	20
3-NT	.502	2.545	µg/L	1	2.50	<0.5	20	134	47 - 142	20
Test Comments	[5] Note	[6] Note		1	0	Note	0	0	0 - 133	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
1,2-dinitrobenzene	.594	2.244	µg/L	1	2.50	23	89	46 - 144

Laboratory Control Spikes

QCBatch: QC13433

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
HMX	.927	1.148	µg/L	1	2.50	<0.5	37	21	0 - 133	20
RDX	.947	1.419	µg/L	1	2.50	<0.5	37	39	0 - 112	20
1,3,5-trinitrobenzene	2.536	2.819	µg/L	1	2.50	<0.5	101	10	0 - 185	20
1,3-dinitrobenzene	2.839	3.571	µg/L	1	2.50	<0.5	113	44	27 - 143	20
tetryl	2.145	2.606	µg/L	1	2.50	<0.5	85	8	19 - 141	20
Nitrobenzene	2.148	2.557	µg/L	1	2.50	<0.5	85	17	15 - 161	20
TNT	2.249	2.464	µg/L	1	2.50	<0.5	89	13	6 - 149	20
4-amino-DNT / 2-amino-DNT	2.445	2.464	µg/L	1	2.50	<0.5	97	9	52 - 132	20
2,6-DNT / 2,4-DNT	2.404	2.53	µg/L	1	2.50	<0.5	96	3	44 - 133	20
2-NT	2.4	2.544	µg/L	1	2.50	<0.5	96	4	29 - 146	20
4-NT	2.196	2.368	µg/L	1	2.50	<0.5	87	7	48 - 139	20
3-NT	2.217	2.389	µg/L	1	2.50	<0.5	88	7	47 - 142	20
Test Comments	[7] Note	[8] Note		1	0		0	0	0 - 133	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
1,2-dinitrobenzene	2.283	2.398	µg/L	1	2.50	91	95	46 - 144

Quality Control Report
Continuing Calibration Verification Standards

[5] Problem occurred during extraction of LCS due to poor prep. LCSD does demonstrate good extraction technique.
[6] Problem occurred during extraction of LCS due to poor prep. LCSD does demonstrate good extraction technique.
[7] Average RPD shows process is under control.
[8] Average RPD shows process is under control.

CCV (1) QCBatch: QC13430

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
HMX		µg/L	500	497.214	99	85 - 115	8/15/01
RDX		µg/L	500	535.104	107	85 - 115	8/15/01
1,3,5-trinitrobenzene		µg/L	500	511.823	102	85 - 115	8/15/01
1,3-dinitrobenzene		µg/L	500	507.558	101	85 - 115	8/15/01
tetryl	9	µg/L	500	370.793	74	85 - 115	8/15/01
Nitrobenzene		µg/L	500	498.175	99	85 - 115	8/15/01
TNT		µg/L	500	548.221	109	85 - 115	8/15/01
4-amino-DNT / 2-amino-DNT		µg/L	500	505.285	101	85 - 115	8/15/01
2,6-DNT / 2,4-DNT		µg/L	500	523.89	104	85 - 115	8/15/01
2-NT		µg/L	500	513.321	102	85 - 115	8/15/01
4-NT		µg/L	500	487.043	97	85 - 115	8/15/01
3-NT		µg/L	500	526.523	105	85 - 115	8/15/01
1,2-dinitrobenzene		µg/L	500	530.027	106	85 - 115	8/15/01

ICV (1) QCBatch: QC13430

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
HMX		µg/L	500	498.478	99	85 - 115	8/15/01
RDX		µg/L	500	525.079	105	85 - 115	8/15/01
1,3,5-trinitrobenzene		µg/L	500	507.445	101	85 - 115	8/15/01
1,3-dinitrobenzene		µg/L	500	513.827	102	85 - 115	8/15/01
tetryl		µg/L	500	486.665	97	85 - 115	8/15/01
Nitrobenzene		µg/L	500	513.132	102	85 - 115	8/15/01
TNT		µg/L	500	528.546	105	85 - 115	8/15/01
4-amino-DNT / 2-amino-DNT		µg/L	500	522.522	104	85 - 115	8/15/01
2,6-DNT / 2,4-DNT		µg/L	500	532.944	106	85 - 115	8/15/01
2-NT		µg/L	500	528.21	105	85 - 115	8/15/01
4-NT		µg/L	500	531.052	106	85 - 115	8/15/01
3-NT		µg/L	500	504.385	100	85 - 115	8/15/01
1,2-dinitrobenzene		µg/L	500	525.068	105	85 - 115	8/15/01

CCV (1) QCBatch: QC13433

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
HMX		µg/L	500	573.457	114	85 - 115	8/8/01
RDX		µg/L	500	515.704	103	85 - 115	8/8/01
1,3,5-trinitrobenzene		µg/L	500	501.881	100	85 - 115	8/8/01
1,3-dinitrobenzene		µg/L	500	533.284	106	85 - 115	8/8/01
tetryl	10	µg/L	500	216.410	43	85 - 115	8/8/01
Nitrobenzene		µg/L	500	554.620	110	85 - 115	8/8/01
TNT		µg/L	500	572.610	114	85 - 115	8/8/01

Continued ...

[9] Tetryl below standard range. Average percent recoveries show process is in control.
[10] Tetryl below standard range. Average percent recoveries show process is in control.

... Continued

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
4-amino-DNT / 2-amino-DNT		µg/L	500	545.073	109	85 - 115	8/8/01
2,6-DNT / 2,4-DNT		µg/L	500	538.049	107	85 - 115	8/8/01
2-NT		µg/L	500	488.978	97	85 - 115	8/8/01
4-NT		µg/L	500	555.941	111	85 - 115	8/8/01
3-NT		µg/L	500	565.451	113	85 - 115	8/8/01
1,2-dinitrobenzene		µg/L	500	568.241	113	85 - 115	8/8/01

CCV (2) QCBatch: QC13433

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
HMX		µg/L	500	560.2	112	85 - 115	8/8/01
RDX		µg/L	500	522	104	85 - 115	8/8/01
1,3,5-trinitrobenzene		µg/L	500	548.4	109	85 - 115	8/8/01
1,3-dinitrobenzene		µg/L	500	536.4	107	85 - 115	8/8/01
tetryl	11	µg/L	500	312.2	62	85 - 115	8/8/01
Nitrobenzene		µg/L	500	594	118	85 - 115	8/8/01
TNT		µg/L	500	574.8	114	85 - 115	8/8/01
4-amino-DNT / 2-amino-DNT		µg/L	500	527.2	105	85 - 115	8/8/01
2,6-DNT / 2,4-DNT		µg/L	500	528	105	85 - 115	8/8/01
2-NT		µg/L	500	522.6	104	85 - 115	8/8/01
4-NT		µg/L	500	537.2	107	85 - 115	8/8/01
3-NT		µg/L	500	547.2	109	85 - 115	8/8/01
1,2-dinitrobenzene		µg/L	500	526.8	105	85 - 115	8/8/01

ICV (1) QCBatch: QC13433

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
HMX		µg/L	500	541.890	108	85 - 115	8/8/01
RDX		µg/L	500	526.053	105	85 - 115	8/8/01
1,3,5-trinitrobenzene		µg/L	500	462.962	92	85 - 115	8/8/01
1,3-dinitrobenzene		µg/L	500	546.141	109	85 - 115	8/8/01
tetryl		µg/L	500	437.011	87	85 - 115	8/8/01
Nitrobenzene		µg/L	500	568.583	113	85 - 115	8/8/01
TNT		µg/L	500	545.596	109	85 - 115	8/8/01
4-amino-DNT / 2-amino-DNT		µg/L	500	487.478	97	85 - 115	8/8/01
2,6-DNT / 2,4-DNT		µg/L	500	523.483	104	85 - 115	8/8/01
2-NT		µg/L	500	515.513	103	85 - 115	8/8/01
4-NT		µg/L	500	487.098	97	85 - 115	8/8/01
3-NT		µg/L	500	501.425	100	85 - 115	8/8/01
1,2-dinitrobenzene		µg/L	500	549.13	109	85 - 115	8/8/01

[11] Tetryl below standard range. Average percent recoveries show process is in control.

TOC Results and Quality Control

TRACEANALYSIS, INC.

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Analytical and Quality Control Report

Karen Costa
Mevatec
P.O. Box 399 Bldg. 126
WSMR, NM 88002

Report Date: August 30, 2001

Order ID Number: A01080205

Project Number: 800 GG
Project Name: Ground Water Sampling at Helstf Chrome Site
Project Location: N/A

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
176140	0143-HMW43-0701	Water	7/31/01	15:02	8/1/01
176142	0143-HMW13-0701-QC	Water	7/31/01	14:37	8/1/01
176144	0143-HMW13-0701	Water	7/31/01	14:37	8/1/01
176146	0143-HMW39-0701-QC	Water	7/31/01	12:07	8/1/01
176148	0143-HMW39-0701	Water	7/31/01	12:07	8/1/01
176150	0143-HMW11-0701	Water	7/31/01	10:54	8/1/01
176212	0143-HMW38-0801	Water	8/1/01	1:17	8/2/01
176214	0145-HMW41-0801	Water	8/1/01	13:28	8/2/01
176216	0143-HMW37-0801	Water	8/1/01	1:17	8/2/01
176347	0143-HMW40-0801	Water	8/2/01	12:11	8/3/01
176349	0143 HMW36 0801	Water	8/2/01	11:17	8/3/01

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 5 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 176140 - 0143-HMW43-0701

Analysis:	TOC	Analytical Method:	E 415.1	QC Batch:	QC13324	Date Analyzed:	8/14/01
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB11370	Date Prepared:	8/14/01

Param	Flag	Result	Units	Dilution	RDL
Total Organic Carbon		4.04	mg/L	1	1

Sample: 176142 - 0143-HMW13-0701-QC

Analysis:	TOC	Analytical Method:	E 415.1	QC Batch:	QC13324	Date Analyzed:	8/14/01
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB11370	Date Prepared:	8/14/01

Param	Flag	Result	Units	Dilution	RDL
Total Organic Carbon		2.13	mg/L	1	1

Sample: 176144 - 0143-HMW13-0701

Analysis:	TOC	Analytical Method:	E 415.1	QC Batch:	QC13324	Date Analyzed:	8/14/01
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB11370	Date Prepared:	8/14/01

Param	Flag	Result	Units	Dilution	RDL
Total Organic Carbon		2.71	mg/L	1	1

Sample: 176146 - 0143-HMW39-0701-QC

Analysis:	TOC	Analytical Method:	E 415.1	QC Batch:	QC13324	Date Analyzed:	8/14/01
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB11370	Date Prepared:	8/14/01

Param	Flag	Result	Units	Dilution	RDL
Total Organic Carbon		4.68	mg/L	1	1

Sample: 176148 - 0143-HMW39-0701

Analysis:	TOC	Analytical Method:	E 415.1	QC Batch:	QC13324	Date Analyzed:	8/14/01
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB11370	Date Prepared:	8/14/01

Param	Flag	Result	Units	Dilution	RDL
Total Organic Carbon		4.06	mg/L	1	1

Sample: 176150 - 0143-HMW11-0701

Analysis:	TOC	Analytical Method:	E 415.1	QC Batch:	QC13324	Date Analyzed:	8/14/01
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB11370	Date Prepared:	8/14/01

Param	Flag	Result	Units	Dilution	RDL
Total Organic Carbon		2.97	mg/L	1	1

Sample: 176212 - 0143-HMW38-0801

Analysis:	TOC	Analytical Method:	E 415.1	QC Batch:	QC13324	Date Analyzed:	8/14/01
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB11370	Date Prepared:	8/14/01

Param	Flag	Result	Units	Dilution	RDL
Total Organic Carbon		2.75	mg/L	1	1

Sample: 176214 - 0145-HMW41-0801

Analysis:	TOC	Analytical Method:	E 415.1	QC Batch:	QC13325	Date Analyzed:	8/14/01
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB11370	Date Prepared:	8/14/01

Param	Flag	Result	Units	Dilution	RDL
Total Organic Carbon		3.26	mg/L	1	1

Sample: 176216 - 0143-HMW37-0801

Analysis:	TOC	Analytical Method:	E 415.1	QC Batch:	QC13325	Date Analyzed:	8/14/01
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB11370	Date Prepared:	8/14/01

Param	Flag	Result	Units	Dilution	RDL
Total Organic Carbon		1.79	mg/L	1	1

Sample: 176347 - 0143-HMW40-0801

Analysis:	TOC	Analytical Method:	E 415.1	QC Batch:	QC13325	Date Analyzed:	8/14/01
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB11370	Date Prepared:	8/14/01

Param	Flag	Result	Units	Dilution	RDL
Total Organic Carbon		6.57	mg/L	1	1

Sample: 176349 - 0143-HMW36-0801

Analysis:	TOC	Analytical Method:	E 415.1	QC Batch:	QC13325	Date Analyzed:	8/14/01
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB11370	Date Prepared:	8/14/01

Param	Flag	Result	Units	Dilution	RDL
Total Organic Carbon		10.56	mg/L	1	1

Quality Control Report
Method Blank

Method Blank QCBatch: QC13324

Param	Flag	Results	Units	Reporting Limit
Total Organic Carbon		<1	mg/L	1

Method Blank QCBatch: QC13325

Param	Flag	Results	Units	Reporting Limit
Total Organic Carbon		<1	mg/L	1

Quality Control Report
Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes QCBatch: QC13324

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Organic Carbon	5.29	5.02	mg/L	1	5	<1	105	5	85 - 118	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spikes QCBatch: QC13325

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Organic Carbon	4.58	4.5	mg/L	1	5	<1	91	1	85 - 118	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Quality Control Report
Matrix Spikes and Duplicate Spikes

Matrix Spikes QCBatch: QC13324

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Organic Carbon	8.64	8.38	mg/L	1	5	2.75	117	4	85 - 118	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spikes QCBatch: QC13325

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Total Organic Carbon	14.99	14.69	mg/L	1	5	10.56	88	7	85 - 118	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Quality Control Report
Continuing Calibration Verification Standards

CCV (1) QCBatch: QC13324

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Organic Carbon		mg/L	5	5.34	106	85 - 115	8/14/01

ICV (1) QCBatch: QC13324

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Organic Carbon		mg/L	5	4.87	97	85 - 115	8/14/01

CCV (1) QCBatch: QC13325

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Organic Carbon		mg/L	5	5.75	115	85 - 115	8/14/01

ICV (1) QCBatch: QC13325

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Organic Carbon		mg/L	5	4.87	97	85 - 115	8/14/01

DRO Results and Quality Control

TRACEANALYSIS, INC.

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Analytical and Quality Control Report

Karen Costa
Mevatec
P.O. Box 399 Bldg. 126
WSMR, NM 88002

Report Date: August 30, 2001

Order ID Number: A01080205

Project Number: 800 GG
Project Name: Ground Water Sampling at Helstf Chrome Site
Project Location: N/A

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
176140	0143-HMW43-0701	Water	7/31/01	15:02	8/1/01
176142	0143-HMW13-0701-QC	Water	7/31/01	14:37	8/1/01
176144	0143-HMW13-0701	Water	7/31/01	14:37	8/1/01
176146	0143-HMW39-0701-QC	Water	7/31/01	12:07	8/1/01
176148	0143-HMW39-0701	Water	7/31/01	12:07	8/1/01
176150	0143-HMW11-0701	Water	7/31/01	10:54	8/1/01
176212	0143-HMW38-0801	Water	8/1/01	1:17	8/2/01
176214	0145-HMW41-0801	Water	8/1/01	13:28	8/2/01
176216	0143-HMW37-0801	Water	8/1/01	1:17	8/2/01
176347	0143-HMW40-0801	Water	8/2/01	12:11	8/3/01
176349	0143-HMW36-0801	Water	8/2/01	11:17	8/3/01

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

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Michael T. Alm
Dr. Blair Leftwich, Director

Analytical Report

Sample: 176140 - 0143-HMW43-0701

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC13147	Date Analyzed:	8/7/01
Analyst:	JJ	Preparation Method:	3510C - Mod.	Prep Batch:	PB11234	Date Prepared:	8/7/01

Param	Flag	Result	Units	Dilution	RDL
DRO		<5	mg/L	0.10	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Octane		27.5	mg/L	0.10	25	110	70 - 130

Sample: 176142 - 0143-HMW13-0701-QC

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC13147	Date Analyzed:	8/7/01
Analyst:	JJ	Preparation Method:	3510C - Mod.	Prep Batch:	PB11234	Date Prepared:	8/7/01

Param	Flag	Result	Units	Dilution	RDL
DRO		<5	mg/L	0.10	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Octane		26.9	mg/L	0.10	25	107	70 - 130

Sample: 176144 - 0143-HMW13-0701

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC13147	Date Analyzed:	8/7/01
Analyst:	JJ	Preparation Method:	3510C - Mod.	Prep Batch:	PB11234	Date Prepared:	8/7/01

Param	Flag	Result	Units	Dilution	RDL
DRO		<5	mg/L	0.10	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Octane		26.4	mg/L	0.10	25	105	70 - 130

Sample: 176146 - 0143-HMW39-0701-QC

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC13147	Date Analyzed:	8/7/01
Analyst:	JJ	Preparation Method:	3510C - Mod.	Prep Batch:	PB11234	Date Prepared:	8/7/01

Param	Flag	Result	Units	Dilution	RDL
DRO		<5	mg/L	0.10	50

Continued ...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Octane		26.9	mg/L	0.10	25	107	70 - 130

Sample: 176148 - 0143-HMW39-0701

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC13147	Date Analyzed:	8/7/01
Analyst:	JJ	Preparation Method:	3510C - Mod.	Prep Batch:	PB11234	Date Prepared:	8/7/01

Param	Flag	Result	Units	Dilution	RDL
DRO		<5	mg/L	0.10	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Octane		28.7	mg/L	0.10	25	114	70 - 130

Sample: 176150 - 0143-HMW11-0701

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC13147	Date Analyzed:	8/7/01
Analyst:	JJ	Preparation Method:	3510C - Mod.	Prep Batch:	PB11234	Date Prepared:	8/7/01

Param	Flag	Result	Units	Dilution	RDL
DRO		<5	mg/L	0.10	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Octane		27.7	mg/L	0.10	25	110	70 - 130

Sample: 176212 - 0143-HMW38-0801

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC13147	Date Analyzed:	8/7/01
Analyst:	JJ	Preparation Method:	3510C - Mod.	Prep Batch:	PB11234	Date Prepared:	8/7/01

Param	Flag	Result	Units	Dilution	RDL
DRO		<5	mg/L	0.10	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Octane		28.4	mg/L	0.10	25	113	70 - 130

Sample: 176214 - 0145-HMW41-0801

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC13147	Date Analyzed:	8/7/01
Analyst:	JJ	Preparation Method:	3510C - Mod.	Prep Batch:	PB11234	Date Prepared:	8/7/01

Continued ...

... Continued Sample: 176214 Analysis: TPH DRO

Param	Flag	Result	Units	Dilution	RDL
DRO		<5	mg/L	0.10	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Octane		27.2	mg/L	0.10	25	108	70 - 130

Sample: 176216 - 0143-HMW37-0801

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC13147	Date Analyzed:	8/7/01
Analyst:	JJ	Preparation Method:	3510C - Mod.	Prep Batch:	PB11234	Date Prepared:	8/7/01

Param	Flag	Result	Units	Dilution	RDL
DRO		<5	mg/L	0.10	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Octane		27.5	mg/L	0.10	25	110	70 - 130

Sample: 176347 - 0143-HMW40-0801

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC13147	Date Analyzed:	8/7/01
Analyst:	JJ	Preparation Method:	3510C - Mod.	Prep Batch:	PB11234	Date Prepared:	8/7/01

Param	Flag	Result	Units	Dilution	RDL
DRO		<5	mg/L	0.10	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Octane		31.3	mg/L	0.10	25	125	70 - 130

Sample: 176349 - 0143-HMW36-0801

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC13147	Date Analyzed:	8/7/01
Analyst:	JJ	Preparation Method:	3510C - Mod.	Prep Batch:	PB11234	Date Prepared:	8/7/01

Param	Flag	Result	Units	Dilution	RDL
DRO		<5	mg/L	0.10	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Octane		31.7	mg/L	0.10	25	126	70 - 130

Quality Control Report
Method Blank

Method Blank QCBatch: QC13147

Param	Flag	Results	Units	Reporting Limit
DRO		<5	mg/L	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Octane		27	mg/L	0.10	25	108	70 - 130

Quality Control Report
Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes QCBatch: QC13147

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
DRO	21.5	22.1	mg/L	0.10	250	<5	86	2	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
n-Octane	32.2	32.1	mg/L	0.10	25	128	128	70 - 130

Quality Control Report
Continuing Calibration Verification Standards

CCV (1) QCBatch: QC13147

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/L	250	227	90	85 - 115	8/7/01
n-Octane	[1]	mg/L	250	330	132	85 - 115	8/7/01

CCV (2) QCBatch: QC13147

Continued ...

[1] Surrogate above standard range. All sample reported as non-detect.

... Continued

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/L	250	218	87	85 - 115	8/7/01
n-Octane	[2]	mg/L	250	339	135	85 - 115	8/7/01

ICV (1) QCBatch: QC13147

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/L	250	218	87	85 - 115	8/7/01
n-Octane	[3]	mg/L	250	336	134	85 - 115	8/7/01

[2]Surrogate above standard range. All sample reported as non-detect.
[3]Surrogate above standard range. All sample reported as non-detect.

GRO Results and Quality Control

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Karen Costa
Mevatec
P.O. Box 399 Bldg. 126
WSMR, NM 88002

Report Date: August 30, 2001

Order ID Number: A01080205

Project Number: 800 GG
Project Name: Ground Water Sampling at Helstf Chrome Site
Project Location: N/A

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
176140	0143-HMW43-0701	Water	7/31/01	15:02	8/1/01
176142	0143-HMW13-0701-QC	Water	7/31/01	14:37	8/1/01
176144	0143-HMW13-0701	Water	7/31/01	14:37	8/1/01
176146	0143-HMW39-0701-QC	Water	7/31/01	12:07	8/1/01
176148	0143-HMW39-0701	Water	7/31/01	12:07	8/1/01
176150	0143-HMW11-0701	Water	7/31/01	10:54	8/1/01
176212	0143-HMW38-0801	Water	8/1/01	1:17	8/2/01
176214	0145-HMW41-0801	Water	8/1/01	13:28	8/2/01
176216	0143-HMW37-0801	Water	8/1/01	1:17	8/2/01
176347	0143-HMW40-0801	Water	8/2/01	12:11	8/3/01
176349	0143-HMW36-0801	Water	8/2/01	11:17	8/3/01

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 5 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of TraceAnalysis, Inc.

Michael T. Abel
Dr. Blair Leftwich, Director

Analytical Report

Sample: 176140 - 0143-HMW43-0701

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC13048	Date Analyzed:	8/2/01
Analyst:	CG	Preparation Method:	5030	Prep Batch:	PB11150	Date Prepared:	8/2/01

Param	Flag	Result	Units	Dilution	RDL
GRO		<0.1	mg/L	1	0.10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.106	mg/L	1	0.10	106	70 - 130
4-BFB		0.109	mg/L	1	0.10	109	70 - 130

Sample: 176142 - 0143-HMW13-0701-QC

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC13048	Date Analyzed:	8/2/01
Analyst:	CG	Preparation Method:	5030	Prep Batch:	PB11150	Date Prepared:	8/2/01

Param	Flag	Result	Units	Dilution	RDL
GRO		<0.1	mg/L	1	0.10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.103	mg/L	1	0.10	103	70 - 130
4-BFB		0.106	mg/L	1	0.10	106	70 - 130

Sample: 176144 - 0143-HMW13-0701

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC13048	Date Analyzed:	8/2/01
Analyst:	CG	Preparation Method:	5030	Prep Batch:	PB11150	Date Prepared:	8/2/01

Param	Flag	Result	Units	Dilution	RDL
GRO		<0.1	mg/L	1	0.10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0921	mg/L	1	0.10	92	70 - 130
4-BFB		0.0929	mg/L	1	0.10	93	70 - 130

Sample: 176146 - 0143-HMW39-0701-QC

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC13048	Date Analyzed:	8/2/01
Analyst:	CG	Preparation Method:	5030	Prep Batch:	PB11150	Date Prepared:	8/2/01

Param	Flag	Result	Units	Dilution	RDL
GRO		<0.1	mg/L	1	0.10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.102	mg/L	1	0.10	102	70 - 130
4-BFB		0.104	mg/L	1	0.10	104	70 - 130

Sample: 176148 - 0143-HMW39-0701

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC13048	Date Analyzed:	8/2/01
Analyst:	CG	Preparation Method:	5030	Prep Batch:	PB11150	Date Prepared:	8/2/01

Param	Flag	Result	Units	Dilution	RDL
GRO		<0.1	mg/L	1	0.10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0852	mg/L	1	0.10	85	70 - 130
4-BFB		0.0917	mg/L	1	0.10	92	70 - 130

Sample: 176150 - 0143-HMW11-0701

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC13048	Date Analyzed:	8/2/01
Analyst:	CG	Preparation Method:	5030	Prep Batch:	PB11150	Date Prepared:	8/2/01

Param	Flag	Result	Units	Dilution	RDL
GRO		<0.1	mg/L	1	0.10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.103	mg/L	1	0.10	103	70 - 130
4-BFB		0.0997	mg/L	1	0.10	100	70 - 130

Sample: 176212 - 0143-HMW38-0801

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC13116	Date Analyzed:	8/6/01
Analyst:	CG	Preparation Method:	5030	Prep Batch:	PB11203	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
GRO		<0.1	mg/L	1	0.10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.102	mg/L	1	0.10	104	70 - 130
4-BFB		0.091	mg/L	1	0.10	90	70 - 130

Sample: 176214 - 0145-HMW41-0801

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC13116	Date Analyzed:	8/6/01
Analyst:	CG	Preparation Method:	5030	Prep Batch:	PB11203	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
GRO		0.117	mg/L	1	0.10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.108	mg/L	1	0.10	107	70 - 130
4-BFB	[1]	0.0662	mg/L	1	0.10	66	70 - 130

Sample: 176216 - 0143-HMW37-0801

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC13116	Date Analyzed:	8/6/01
Analyst:	CG	Preparation Method:	5030	Prep Batch:	PB11203	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
GRO		<0.1	mg/L	1	0.10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0859	mg/L	1	0.10	85	70 - 130
4-BFB	[2]	0.0514	mg/L	1	0.10	50	70 - 130

Sample: 176347 - 0143-HMW40-0801

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC13116	Date Analyzed:	8/6/01
Analyst:	CG	Preparation Method:	5030	Prep Batch:	PB11203	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
GRO		<0.1	mg/L	1	0.10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.091	mg/L	1	0.10	89	70 - 130
4-BFB	[3]	0.0657	mg/L	1	0.10	63	70 - 130

Sample: 176349 - 0143-HMW36-0801

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC13116	Date Analyzed:	8/6/01
Analyst:	CG	Preparation Method:	5030	Prep Batch:	PB11203	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
GRO		<0.1	mg/L	1	0.10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0914	mg/L	1	0.10	92	70 - 130
4-BFB		0.0848	mg/L	1	0.10	84	70 - 130

[1] Poor surrogate recovery due to lack of mixing.
[2] Poor surrogate recovery due to lack of mixing.
[3] Poor surrogate recovery due to lack of mixing.

Quality Control Report
Method Blank

Method Blank QCBatch: QC13048

Param	Flag	Results	Units	Reporting Limit
GRO		<1	mg/L	0.10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.111	mg/L	1	0.10	111	70 - 130
4-BFB		0.105	mg/L	1	0.10	105	70 - 130

Method Blank QCBatch: QC13116

Param	Flag	Results	Units	Reporting Limit
GRO		<1	mg/L	0.10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0953	mg/L	1	0.10	94	70 - 130
4-BFB		0.0743	mg/L	1	0.10	71	70 - 130

Quality Control Report
Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes QCBatch: QC13048

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
GRO	0.93	0.97	mg/L	1	1	<1	93	4	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.119	0.122	mg/L	1	0.10	119	122	70 - 130
4-BFB	0.093	0.095	mg/L	1	0.10	93	95	70 - 130

Laboratory Control Spikes QCBatch: QC13116

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
GRO	0.853	1.00	mg/L	1	1	<1	85	15	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.094	0.103	mg/L	1	0.10	94	103	70 - 130
4-BFB	0.086	0.087	mg/L	1	0.10	86	87	70 - 130

Quality Control Report
Continuing Calibration Verification Standards

CCV (1) QCBatch: QC13048

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1	0.932	93	85 - 115	8/2/01

ICV (1) QCBatch: QC13048

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1	0.903	90	85 - 115	8/2/01

CCV (1) QCBatch: QC13116

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1	0.918	91	85 - 115	8/6/01

ICV (1) QCBatch: QC13116

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1	0.975	97	85 - 115	8/6/01

TDS Results and Quality Control

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
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E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Karen Costa
Mevatec
P.O. Box 399 Bldg. 126
WSMR, NM 88002

Report Date: August 31, 2001

Order ID Number: A01080205

Project Number: 800 GG
Project Name: Ground Water Sampling at Helstf Chrome Site
Project Location: N/A

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
176140	0143-HMW43-0701	Water	7/31/01	15:02	8/1/01
176142	0143-HMW13-0701-QC	Water	7/31/01	14:37	8/1/01
176144	0143-HMW13-0701	Water	7/31/01	14:37	8/1/01
176146	0143-IIMW39-0701-QC	Water	7/31/01	12:07	8/1/01
176148	0143-HMW39-0701	Water	7/31/01	12:07	8/1/01
176150	0143-HMW11-0701	Water	7/31/01	10:54	8/1/01
176212	0143-HMW38-0801	Water	8/1/01	1:17	8/2/01
176214	0145-HMW41-0801	Water	8/1/01	13:28	8/2/01
176216	0143-HMW37-0801	Water	8/1/01	1:17	8/2/01
176347	0143-HMW40-0801	Water	8/2/01	12:11	8/3/01
176349	0143-HMW36-0801	Water	8/2/01	11:17	8/3/01

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Michael T. Arel
Dr. Blair Leftwich, Director

Analytical Report

Sample: 176140 - 0143-HMW43-0701

Analysis: TDS (El Paso) Analytical Method: SM 2540C QC Batch: QC13462 Date Analyzed: 8/1/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11479 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Total Dissolved Solids		9,400	mg/L	1	5

Sample: 176142 - 0143-HMW13-0701-QC

Analysis: TDS (El Paso) Analytical Method: SM 2540C QC Batch: QC13462 Date Analyzed: 8/1/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11479 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Total Dissolved Solids		7,000	mg/L	1	5

Sample: 176144 - 0143-HMW13-0701

Analysis: TDS (El Paso) Analytical Method: SM 2540C QC Batch: QC13462 Date Analyzed: 8/1/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11479 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Total Dissolved Solids		7,000	mg/L	1	5

Sample: 176146 - 0143-HMW39-0701-QC

Analysis: TDS (El Paso) Analytical Method: SM 2540C QC Batch: QC13462 Date Analyzed: 8/1/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11479 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Total Dissolved Solids		22,000	mg/L	1	5

Sample: 176148 - 0143-HMW39-0701

Analysis: TDS (El Paso) Analytical Method: SM 2540C QC Batch: QC13462 Date Analyzed: 8/1/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11479 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Total Dissolved Solids		22,000	mg/L	1	5

Sample: 176150 - 0143-HMW11-0701

Analysis: TDS (El Paso) Analytical Method: SM 2540C QC Batch: QC13462 Date Analyzed: 8/1/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11479 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Total Dissolved Solids		18,000	mg/L	1	5

Sample: 176212 - 0143-HMW38-0801

Analysis:	TDS (El Paso)	Analytical Method:	SM 2540C	QC Batch:	QC13463	Date Analyzed:	8/6/01
Analyst:	AM	Preparation Method:	N/A	Prep Batch:	PB11480	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Total Dissolved Solids		16,000	mg/L	1	5

Sample: 176214 - 0145-HMW41-0801

Analysis:	TDS (El Paso)	Analytical Method:	SM 2540C	QC Batch:	QC13463	Date Analyzed:	8/6/01
Analyst:	AM	Preparation Method:	N/A	Prep Batch:	PB11480	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Total Dissolved Solids		23,000	mg/L	1	5

Sample: 176216 - 0143-HMW37-0801

Analysis:	TDS (El Paso)	Analytical Method:	SM 2540C	QC Batch:	QC13463	Date Analyzed:	8/6/01
Analyst:	AM	Preparation Method:	N/A	Prep Batch:	PB11480	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Total Dissolved Solids		5,800	mg/L	1	5

Sample: 176347 - 0143-HMW40-0801

Analysis:	TDS (El Paso)	Analytical Method:	SM 2540C	QC Batch:	QC13463	Date Analyzed:	8/6/01
Analyst:	AM	Preparation Method:	N/A	Prep Batch:	PB11480	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Total Dissolved Solids		44,000	mg/L	1	5

Sample: 176349 - 0143-HMW36-0801

Analysis:	TDS (El Paso)	Analytical Method:	SM 2540C	QC Batch:	QC13463	Date Analyzed:	8/6/01
Analyst:	AM	Preparation Method:	N/A	Prep Batch:	PB11480	Date Prepared:	8/6/01

Param	Flag	Result	Units	Dilution	RDL
Total Dissolved Solids		10,000	mg/L	1	5

Quality Control Report
Method Blank

Method Blank QCBatch: QC13462

Param	Flag	Results	Units	Reporting Limit
Total Dissolved Solids		<50	mg/L	5

Method Blank QCBatch: QC13463

Param	Flag	Results	Units	Reporting Limit
Total Dissolved Solids		<50	mg/L	5

Quality Control Report
Duplicate Samples

Duplicate QCBatch: QC13462

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		2000	2,000	mg/L	1	0	20

Duplicate QCBatch: QC13463

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		16000	16,000	mg/L	1	0	20

Quality Control Report
Continuing Calibration Verification Standards

ICV (1) QCBatch: QC13462

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1010	101	90 - 110	8/1/01

ICV (1) QCBatch: QC13463

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	912	91	90 - 110	8/6/01

pH Results and Quality Control

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Karen Costa
Mevatec
P.O. Box 399 Bldg. 126
WSMR, NM 88002

Report Date: August 30, 2001

Order ID Number: A01080205

Project Number: 800 GG
Project Name: Ground Water Sampling at Helstf Chrome Site
Project Location: N/A

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
176140	0143-HMW43-0701	Water	7/31/01	15:02	8/1/01
176142	0143-HMW13-0701-QC	Water	7/31/01	14:37	8/1/01
176144	0143-HMW13-0701	Water	7/31/01	14:37	8/1/01
176146	0143-HMW39-0701-QC	Water	7/31/01	12:07	8/1/01
176148	0143-HMW39-0701	Water	7/31/01	12:07	8/1/01
176150	0143-HMW11-0701	Water	7/31/01	10:54	8/1/01
176212	0143-HMW38-0801	Water	8/1/01	1:17	8/2/01
176214	0145-HMW41-0801	Water	8/1/01	13:28	8/2/01
176216	0143-HMW37-0801	Water	8/1/01	1:17	8/2/01
176347	0143-HMW40-0801	Water	8/2/01	12:11	8/3/01
176349	0143-HMW36-0801	Water	8/2/01	11:17	8/3/01

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Michael T. Alvey
Dr. Blair Leftwich, Director

Analytical Report

Sample: 176140 - 0143-HMW43-0701

Analysis: pH (El Paso) Analytical Method: SM 4500-H+ QC Batch: QC13587 Date Analyzed: 8/1/01
Analyst: DG Preparation Method: N/A Prep Batch: PB11590 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
pH		7.92	s.u.	1	1

Sample: 176142 - 0143-HMW13-0701-QC

Analysis: pH (El Paso) Analytical Method: SM 4500-H+ QC Batch: QC13587 Date Analyzed: 8/1/01
Analyst: DG Preparation Method: N/A Prep Batch: PB11590 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
pH		7.82	s.u.	1	1

Sample: 176144 - 0143-HMW13-0701

Analysis: pH (El Paso) Analytical Method: SM 4500-H+ QC Batch: QC13587 Date Analyzed: 8/1/01
Analyst: DG Preparation Method: N/A Prep Batch: PB11590 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
pH		7.83	s.u.	1	1

Sample: 176146 - 0143-HMW39-0701-QC

Analysis: pH (El Paso) Analytical Method: SM 4500-H+ QC Batch: QC13587 Date Analyzed: 8/1/01
Analyst: DG Preparation Method: N/A Prep Batch: PB11590 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
pH		7.61	s.u.	1	1

Sample: 176148 - 0143-HMW39-0701

Analysis: pH (El Paso) Analytical Method: SM 4500-H+ QC Batch: QC13587 Date Analyzed: 8/1/01
Analyst: DG Preparation Method: N/A Prep Batch: PB11590 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
pH		7.59	s.u.	1	1

Sample: 176150 - 0143-HMW11-0701

Analysis: pH (El Paso) Analytical Method: SM 4500-H+ QC Batch: QC13587 Date Analyzed: 8/1/01
Analyst: DG Preparation Method: N/A Prep Batch: PB11590 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
pH		7.92	s.u.	1	1

Sample: 176212 - 0143-HMW38-0801

Analysis:	pH (El Paso)	Analytical Method:	SM 4500-H+	QC Batch:	QC13452	Date Analyzed:	8/2/01
Analyst:	LG	Preparation Method:	N/A	Prep Batch:	PB11470	Date Prepared:	8/2/01

Param	Flag	Result	Units	Dilution	RDL
pH		7.56	s.u.	1	1

Sample: 176214 - 0145-HMW41-0801

Analysis:	pH (El Paso)	Analytical Method:	SM 4500-H+	QC Batch:	QC13452	Date Analyzed:	8/2/01
Analyst:	LG	Preparation Method:	N/A	Prep Batch:	PB11470	Date Prepared:	8/2/01

Param	Flag	Result	Units	Dilution	RDL
pH		7.34	s.u.	1	1

Sample: 176216 - 0143-HMW37-0801

Analysis:	pH (El Paso)	Analytical Method:	SM 4500-H+	QC Batch:	QC13452	Date Analyzed:	8/2/01
Analyst:	LG	Preparation Method:	N/A	Prep Batch:	PB11470	Date Prepared:	8/2/01

Param	Flag	Result	Units	Dilution	RDL
pH		7.35	s.u.	1	1

Sample: 176347 - 0143-HMW40-0801

Analysis:	pH (El Paso)	Analytical Method:	SM 4500-H+	QC Batch:	QC13453	Date Analyzed:	8/3/01
Analyst:	LG	Preparation Method:	N/A	Prep Batch:	PB11471	Date Prepared:	8/3/01

Param	Flag	Result	Units	Dilution	RDL
pH		7.77	s.u.	1	1

Sample: 176349 - 0143-HMW36-0801

Analysis:	pH (El Paso)	Analytical Method:	SM 4500-H+	QC Batch:	QC13453	Date Analyzed:	8/3/01
Analyst:	LG	Preparation Method:	N/A	Prep Batch:	PB11471	Date Prepared:	8/3/01

Param	Flag	Result	Units	Dilution	RDL
pH		7.78	s.u.	1	1

Quality Control Report
Duplicate Samples

Duplicate QCBatch: QC13452

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH		7.36	7.35	s.u.	1	0	1.2

Duplicate QCBatch: QC13453

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH		7.79	7.77	s.u.	1	0	1.2

Duplicate QCBatch: QC13587

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH		7.91	7.92	s.u.	1	0	1.2

Quality Control Report
Continuing Calibration Verification Standards

CCV (1) QCBatch: QC13452

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	8	7.98	99	-0.1 s.u. - +0.1 s.u.	8/2/01

ICV (1) QCBatch: QC13452

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	8	7.97	99	-0.1 s.u. - +0.1 s.u.	8/2/01

CCV (1) QCBatch: QC13453

Continued ...

... Continued

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	8	8.04	100	-0.1 s.u. - +0.1 s.u.	8/3/01

ICV (1) QCBatch: QC13453

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	8	7.95	99	-0.1 s.u. - +0.1 s.u.	8/3/01

CCV (1) QCBatch: QC13587

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	8	8.03	100	-0.1 s.u. - +0.1 s.u.	8/1/01

ICV (1) QCBatch: QC13587

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	8	7.93	99	-0.1 s.u. - +0.1 s.u.	8/1/01

Specific Conductance Results and Quality Control

TRACEANALYSIS, INC.

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E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Karen Costa
Mevatec
P.O. Box 399 Bldg. 126
WSMR, NM 88002

Report Date: August 30, 2001

Order ID Number: A01080205

Project Number: 800 GG
Project Name: Ground Water Sampling at Helstf Chrome Site
Project Location: N/A

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
176140	0143-HMW43-0701	Water	7/31/01	15:02	8/1/01
176142	0143-HMW13-0701-QC	Water	7/31/01	14:37	8/1/01
176144	0143-HMW13-0701	Water	7/31/01	14:37	8/1/01
176146	0143-HMW39-0701-QC	Water	7/31/01	12:07	8/1/01
176148	0143-HMW39-0701	Water	7/31/01	12:07	8/1/01
176150	0143-HMW11-0701	Water	7/31/01	10:54	8/1/01
176212	0143-HMW38-0801	Water	8/1/01	1:17	8/2/01
176214	0145-HMW41-0801	Water	8/1/01	13:28	8/2/01
176216	0143-HMW37-0801	Water	8/1/01	1:17	8/2/01
176347	0143-HMW40-0801	Water	8/2/01	12:11	8/3/01
176349	0143-HMW36-0801	Water	8/2/01	11:17	8/3/01

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

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Michael T. Abel
Dr. Blair Leftwich, Director

Analytical Report

Sample: 176140 - 0143-HMW43-0701

Analysis: Conductivity (El Paso) Analytical Method: SM 2510B QC Batch: QC13164 Date Analyzed: 8/1/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11251 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Specific Conductance		10,000	μMHOS/cm	1	1

Sample: 176142 - 0143-HMW13-0701-QC

Analysis: Conductivity (El Paso) Analytical Method: SM 2510B QC Batch: QC13164 Date Analyzed: 8/1/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11251 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Specific Conductance		7,500	μMHOS/cm	1	1

Sample: 176144 - 0143-HMW13-0701

Analysis: Conductivity (El Paso) Analytical Method: SM 2510B QC Batch: QC13164 Date Analyzed: 8/1/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11251 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Specific Conductance		7,600	μMHOS/cm	1	1

Sample: 176146 - 0143-HMW39-0701-QC

Analysis: Conductivity (El Paso) Analytical Method: SM 2510B QC Batch: QC13164 Date Analyzed: 8/1/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11251 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Specific Conductance		24,000	μMHOS/cm	1	1

Sample: 176148 - 0143-HMW39-0701

Analysis: Conductivity (El Paso) Analytical Method: SM 2510B QC Batch: QC13164 Date Analyzed: 8/1/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11251 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Specific Conductance		24,000	μMHOS/cm	1	1

Sample: 176150 - 0143-HMW11-0701

Analysis: Conductivity (El Paso) Analytical Method: SM 2510B QC Batch: QC13164 Date Analyzed: 8/1/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11251 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Specific Conductance		20,000	μMHOS/cm	1	1

Sample: 176212 - 0143-HMW38-0801

Analysis: Conductivity (El Paso) Analytical Method: SM 2510B QC Batch: QC13163 Date Analyzed: 8/6/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11250 Date Prepared: 8/6/01

Param	Flag	Result	Units	Dilution	RDL
Specific Conductance		17,000	μMHOS/cm	1	1

Sample: 176214 - 0145-HMW41-0801

Analysis: Conductivity (El Paso) Analytical Method: SM 2510B QC Batch: QC13163 Date Analyzed: 8/6/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11250 Date Prepared: 8/6/01

Param	Flag	Result	Units	Dilution	RDL
Specific Conductance		24,000	μMHOS/cm	1	1

Sample: 176216 - 0143-HMW37-0801

Analysis: Conductivity (El Paso) Analytical Method: SM 2510B QC Batch: QC13163 Date Analyzed: 8/6/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11250 Date Prepared: 8/6/01

Param	Flag	Result	Units	Dilution	RDL
Specific Conductance		5,900	μMHOS/cm	1	1

Sample: 176347 - 0143-HMW40-0801

Analysis: Conductivity (El Paso) Analytical Method: SM 2510B QC Batch: QC13163 Date Analyzed: 8/6/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11250 Date Prepared: 8/6/01

Param	Flag	Result	Units	Dilution	RDL
Specific Conductance		46,000	μMHOS/cm	1	1

Sample: 176349 - 0143-HMW36-0801

Analysis: Conductivity (El Paso) Analytical Method: SM 2510B QC Batch: QC13163 Date Analyzed: 8/6/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11250 Date Prepared: 8/6/01

Param	Flag	Result	Units	Dilution	RDL
Specific Conductance		11,000	μMHOS/cm	1	1

Quality Control Report
Method Blank

Method Blank QCBatch: QC13163

Param	Flag	Results	Units	Reporting Limit
Specific Conductance		<1.0	μMHOS/cm	1

Method Blank QCBatch: QC13164

Param	Flag	Results	Units	Reporting Limit
Specific Conductance		<1.0	μMHOS/cm	1

Quality Control Report
Duplicate Samples

Duplicate QCBatch: QC13163

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Specific Conductance		17000	17,000	μMHOS/cm	1	0	20

Duplicate QCBatch: QC13164

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Specific Conductance		10000	10,000	μMHOS/cm	1	0	20

Quality Control Report
Continuing Calibration Verification Standards

CCV (1) QCBatch: QC13163

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		μMHOS/cm	1413	1400	99	80 - 120	8/6/01

ICV (1) QCBatch: QC13163

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		μMHOS/cm	1413	1400	99	80 - 120	8/6/01

CCV (1) QCBatch: QC13164

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		μMHOS/cm	1413	1390	98	80 - 120	8/1/01

ICV (1) QCBatch: QC13164

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		μMHOS/cm	1413	1400	99	80 - 120	8/1/01

Alkalinity Results and Quality Control

TRACEANALYSIS, INC.

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Analytical and Quality Control Report

Karen Costa
Mevatec
P.O. Box 399 Bldg. 126
WSMR, NM 88002

Report Date: August 30, 2001

Order ID Number: A01080205

Project Number: 800 GG
Project Name: Ground Water Sampling at Helstf Chrome Site
Project Location: N/A

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
176140	0143-HMW43-0701	Water	7/31/01	15:02	8/1/01
176142	0143-HMW13-0701-QC	Water	7/31/01	14:37	8/1/01
176144	0143-HMW13-0701	Water	7/31/01	14:37	8/1/01
176146	0143-HMW39-0701-QC	Water	7/31/01	12:07	8/1/01
176148	0143-HMW39-0701	Water	7/31/01	12:07	8/1/01
176150	0143-HMW11-0701	Water	7/31/01	10:54	8/1/01
176212	0143-HMW38-0801	Water	8/1/01	1:17	8/2/01
176214	0145-HMW41-0801	Water	8/1/01	13:28	8/2/01
176216	0143-HMW37-0801	Water	8/1/01	1:17	8/2/01
176347	0143-HMW40-0801	Water	8/2/01	12:11	8/3/01
176349	0143-HMW36-0801	Water	8/2/01	11:17	8/3/01

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 6 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 176140 - 0143-HMW43-0701

Analysis: Alkalinity (El Paso) Analytical Method: SM 2320B QC Batch: QC13159 Date Analyzed: 8/1/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11248 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Carbonate Alkalinity		<5.0	mg/L as CaCo3	1	5
Bicarbonate Alkalinity		80	mg/L as CaCo3	1	5
Total Alkalinity		80	mg/L as CaCo3	1	5

Sample: 176142 - 0143-HMW13-0701-QC

Analysis: Alkalinity (El Paso) Analytical Method: SM 2320B QC Batch: QC13159 Date Analyzed: 8/1/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11248 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Carbonate Alkalinity		<5.0	mg/L as CaCo3	1	5
Bicarbonate Alkalinity		110	mg/L as CaCo3	1	5
Total Alkalinity		110	mg/L as CaCo3	1	5

Sample: 176144 - 0143-HMW13-0701

Analysis: Alkalinity (El Paso) Analytical Method: SM 2320B QC Batch: QC13159 Date Analyzed: 8/1/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11248 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Carbonate Alkalinity		<5.0	mg/L as CaCo3	1	5
Bicarbonate Alkalinity		110	mg/L as CaCo3	1	5
Total Alkalinity		110	mg/L as CaCo3	1	5

Sample: 176146 - 0143-HMW39-0701-QC

Analysis: Alkalinity (El Paso) Analytical Method: SM 2320B QC Batch: QC13159 Date Analyzed: 8/1/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11248 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Carbonate Alkalinity		<5.0	mg/L as CaCo3	1	5
Bicarbonate Alkalinity		180	mg/L as CaCo3	1	5
Total Alkalinity		180	mg/L as CaCo3	1	5

Sample: 176148 - 0143-HMW39-0701

Analysis: Alkalinity (El Paso) Analytical Method: SM 2320B QC Batch: QC13159 Date Analyzed: 8/1/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11248 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Carbonate Alkalinity		<5.0	mg/L as CaCo3	1	5
Bicarbonate Alkalinity		180	mg/L as CaCo3	1	5
Total Alkalinity		180	mg/L as CaCo3	1	5

Sample: 176150 - 0143-HMW11-0701

Analysis: Alkalinity (El Paso) Analytical Method: SM 2320B QC Batch: QC13159 Date Analyzed: 8/1/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11248 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Carbonate Alkalinity		<5.0	mg/L as CaCo3	1	5
Bicarbonate Alkalinity		180	mg/L as CaCo3	1	5
Total Alkalinity		180	mg/L as CaCo3	1	5

Sample: 176212 - 0143-HMW38-0801

Analysis: Alkalinity (El Paso) Analytical Method: SM 2320B QC Batch: QC13282 Date Analyzed: 8/8/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11328 Date Prepared: 8/8/01

Param	Flag	Result	Units	Dilution	RDL
Carbonate Alkalinity		<5.0	mg/L as CaCo3	1	5
Bicarbonate Alkalinity		200	mg/L as CaCo3	1	5
Total Alkalinity		200	mg/L as CaCo3	1	5

Sample: 176214 - 0145-HMW41-0801

Analysis: Alkalinity (El Paso) Analytical Method: SM 2320B QC Batch: QC13282 Date Analyzed: 8/8/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11328 Date Prepared: 8/8/01

Param	Flag	Result	Units	Dilution	RDL
Carbonate Alkalinity		<5.0	mg/L as CaCo3	1	5
Bicarbonate Alkalinity		240	mg/L as CaCo3	1	5
Total Alkalinity		240	mg/L as CaCo3	1	5

Sample: 176216 - 0143-HMW37-0801

Analysis: Alkalinity (El Paso) Analytical Method: SM 2320B QC Batch: QC13282 Date Analyzed: 8/8/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11328 Date Prepared: 8/8/01

Param	Flag	Result	Units	Dilution	RDL
Carbonate Alkalinity		<5.0	mg/L as CaCo3	1	5
Bicarbonate Alkalinity		130	mg/L as CaCo3	1	5
Total Alkalinity		130	mg/L as CaCo3	1	5

Sample: 176347 - 0143-HMW40-0801

Analysis: Alkalinity (El Paso) Analytical Method: SM 2320B QC Batch: QC13282 Date Analyzed: 8/8/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11328 Date Prepared: 8/8/01

Param	Flag	Result	Units	Dilution	RDL
Carbonate Alkalinity		<5.0	mg/L as CaCo3	1	5
Bicarbonate Alkalinity		790	mg/L as CaCo3	1	5
Total Alkalinity		790	mg/L as CaCo3	1	5

Sample: 176349 - 0143-HMW36-0801

Analysis: Alkalinity (El Paso) Analytical Method: SM 2320B QC Batch: QC13282 Date Analyzed: 8/8/01
Analyst: AM Preparation Method: N/A Prep Batch: PB11328 Date Prepared: 8/8/01

Param	Flag	Result	Units	Dilution	RDL
Carbonate Alkalinity		<5.0	mg/L as CaCo3	1	5
Bicarbonate Alkalinity		790	mg/L as CaCo3	1	5
Total Alkalinity		790	mg/L as CaCo3	1	5

Quality Control Report
Method Blank

Method Blank QCBatch: QC13159

Param	Flag	Results	Units	Reporting Limit
Carbonate Alkalinity		<5.0	mg/L as CaCo3	5
Bicarbonate Alkalinity		<5.0	mg/L as CaCo3	5
Total Alkalinity		<5.0	mg/L as CaCo3	5

Method Blank QCBatch: QC13282

Param	Flag	Results	Units	Reporting Limit
Carbonate Alkalinity		<5.0	mg/L as CaCo3	5
Bicarbonate Alkalinity		<5.0	mg/L as CaCo3	5
Total Alkalinity		<5.0	mg/L as CaCo3	5

Quality Control Report
Duplicate Samples

Duplicate QCBatch: QC13159

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Carbonate Alkalinity		<5.0	<5.0	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity		180	180	mg/L as CaCo3	1	0	20
Total Alkalinity		180	180	mg/L as CaCo3	1	0	20

Duplicate QCBatch: QC13282

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Carbonate Alkalinity		<5.0	<5.0	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity		200	200	mg/L as CaCo3	1	0	20
Total Alkalinity		200	200	mg/L as CaCo3	1	0	20

Quality Control Report
Continuing Calibration Verification Standards

CCV (1) QCBatch: QC13159

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	100	96.6	96	90 - 110	8/1/01

ICV (1) QCBatch: QC13159

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	100	92.4	92	90 - 110	8/1/01

CCV (1) QCBatch: QC13282

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	100	97.7	98	90 - 110	8/8/01

ICV (1) QCBatch: QC13282

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	100	96.8	97	90 - 110	8/8/01

Dissolved Ion Results and Quality Control

TRACEANALYSIS, INC.

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Analytical and Quality Control Report

Karen Costa
Mevatec
P.O. Box 399 Bldg. 126
WSMR, NM 88002

Report Date: September 4, 2001

Order ID Number: A01080205

Project Number: 800 GG
Project Name: Ground Water Sampling at Helstf Chrome Site
Project Location: N/A

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
176140	0143-HMW43-0701	Water	7/31/01	15:02	8/1/01
176142	0143-HMW13-0701-QC	Water	7/31/01	14:37	8/1/01
176144	0143-HMW13-0701	Water	7/31/01	14:37	8/1/01
176146	0143-HMW39-0701-QC	Water	7/31/01	12:07	8/1/01
176148	0143-HMW39-0701	Water	7/31/01	12:07	8/1/01
176150	0143-HMW11-0701	Water	7/31/01	10:54	8/1/01
176212	0143-HMW38-0801	Water	8/1/01	1:17	8/2/01
176214	0145-HMW41-0801	Water	8/1/01	13:28	8/2/01
176216	0143-HMW37-0801	Water	8/1/01	1:17	8/2/01
176347	0143-HMW40-0801	Water	8/2/01	12:11	8/3/01
176349	0143-HMW36-0801	Water	8/2/01	11:17	8/3/01

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 8 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of TraceAnalysis, Inc.

Michael T. Arnold
Dr. Blair Leftwich, Director

Analytical Report

Sample: 176140 - 0143-HMW43-0701

Analysis: Ion Chromatography (IC) (El Paso) Analytical Method: E 300.0 QC Batch: QC13679 Date Analyzed: 8/1/01
Analyst: DG Preparation Method: N/A Prep Batch: PB11676 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Bromide		<10.0	mg/L	5	2
CL		550	mg/L	100	2
Fluoride		3.5	mg/L	5	0.20
Nitrite-N		<0.5	mg/L	5	0.10
Nitrate-N		19	mg/L	100	0.10
Sulfate		5,500	mg/L	100	1

Sample: 176142 - 0143-HMW13-0701-QC

Analysis: Ion Chromatography (IC) (El Paso) Analytical Method: E 300.0 QC Batch: QC13679 Date Analyzed: 8/1/01
Analyst: DG Preparation Method: N/A Prep Batch: PB11676 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Bromide		<10.0	mg/L	5	2
CL		470	mg/L	100	2
Fluoride		3.3	mg/L	5	0.20
Nitrite-N		<0.5	mg/L	5	0.10
Nitrate-N		24	mg/L	100	0.10
Sulfate		4,100	mg/L	100	1

Sample: 176144 - 0143-HMW13-0701

Analysis: Ion Chromatography (IC) (El Paso) Analytical Method: E 300.0 QC Batch: QC13679 Date Analyzed: 8/1/01
Analyst: DG Preparation Method: N/A Prep Batch: PB11676 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Bromide		<10.0	mg/L	5	2
CL		490	mg/L	100	2
Fluoride		3.5	mg/L	5	0.20
Nitrite-N		<0.5	mg/L	5	0.10
Nitrate-N		25.0	mg/L	100	0.10
Sulfate		400	mg/L	100	1

Sample: 176146 - 0143-HMW39-0701-QC

Analysis: Ion Chromatography (IC) (El Paso) Analytical Method: E 300.0 QC Batch: QC13679 Date Analyzed: 8/1/01
Analyst: DG Preparation Method: N/A Prep Batch: PB11676 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Bromide		<20.0	mg/L	10	2
CL		4,800	mg/L	1000	2
Fluoride		<2.0	mg/L	10	0.20
Nitrite-N		<1.0	mg/L	10	0.10
Nitrate-N		140	mg/L	100	0.10

Continued ...

... *Continued* Sample: 176146 Analysis: Ion Chromatography (IC) (El Paso)

Param	Flag	Result	Units	Dilution	RDL
Sulfate	[1]	12,000	mg/L	1000	1

Sample: 176148 - 0143-HMW39-0701

Analysis: Ion Chromatography (IC) (El Paso) Analytical Method: E 300.0 QC Batch: QC13679 Date Analyzed: 8/1/01
Analyst: DG Preparation Method: N/A Prep Batch: PB11676 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Bromide		<20.0	mg/L	10	2
CL		3,800	mg/L	1000	2
Fluoride		7.4	mg/L	10	0.20
Nitrite-N		<1.0	mg/L	10	0.10
Nitrate-N		140	mg/L	100	0.10
Sulfate	[2]	9,200	mg/L	1000	1

Sample: 176150 - 0143-HMW11-0701

Analysis: Ion Chromatography (IC) (El Paso) Analytical Method: E 300.0 QC Batch: QC13679 Date Analyzed: 8/1/01
Analyst: DG Preparation Method: N/A Prep Batch: PB11676 Date Prepared: 8/1/01

Param	Flag	Result	Units	Dilution	RDL
Bromide		<20.0	mg/L	10	2
CL		3,200	mg/L	1000	2
Fluoride		<2.0	mg/L	10	0.20
Nitrite-N		<1.0	mg/L	10	0.10
Nitrate-N		120	mg/L	100	0.10
Sulfate		9,300	mg/L	1000	1

Sample: 176212 - 0143-HMW38-0801

Analysis: Ion Chromatography (IC) (El Paso) Analytical Method: E 300.0 QC Batch: QC13642 Date Analyzed: 8/2/01
Analyst: DG Preparation Method: N/A Prep Batch: PB11640 Date Prepared: 8/2/01

Param	Flag	Result	Units	Dilution	RDL
Bromide		<2.0	mg/L	1	2
CL		1,800	mg/L	100	2
Fluoride		<2.0	mg/L	10	0.20
Nitrite-N		<1.0	mg/L	10	0.10
Nitrate-N		67	mg/L	10	0.10
Sulfate		9,000	mg/L	100	1

Sample: 176214 - 0145-HMW41-0801

Analysis: Ion Chromatography (IC) (El Paso) Analytical Method: E 300.0 QC Batch: QC13642 Date Analyzed: 8/2/01
Analyst: DG Preparation Method: N/A Prep Batch: PB11640 Date Prepared: 8/2/01

Param	Flag	Result	Units	Dilution	RDL
Bromide		<20.0	mg/L	1	2

Continued ...

[1] Test re-ran on 08/02/01 in QC11342. RPD 0 EA % 110 CCV EA % 96
[2] Test re-ran on 08/02/01 in QC11342. RPD 0 EA % 110 CCV EA % 96

... Continued Sample: 176214 Analysis: Ion Chromatography (IC) (El Paso)

Param	Flag	Result	Units	Dilution	RDL
CL		4,900	mg/L	100	2
Fluoride		<2.0	mg/L	10	0.20
Nitrite-N		<1.0	mg/L	10	0.10
Nitrate-N		160	mg/L	100	0.10
Sulfate		10,000	mg/L	100	1

Sample: 176216 - 0143-HMW37-0801

Analysis: Ion Chromatography (IC) (El Paso) Analytical Method: E 300.0 QC Batch: QC13642 Date Analyzed: 8/2/01
Analyst: DG Preparation Method: N/A Prep Batch: PB11640 Date Prepared: 8/2/01

Param	Flag	Result	Units	Dilution	RDL
Bromide		<2.0	mg/L	1	2
CL		290	mg/L	100	2
Fluoride		3.2	mg/L	1	0.20
Nitrite-N		<10.0	mg/L	100	0.10
Nitrate-N		12	mg/L	100	0.10
Sulfate		3,200	mg/L	100	1

Sample: 176347 - 0143-HMW40-0801

Analysis: Ion Chromatography (IC) (El Paso) Analytical Method: E 300.0 QC Batch: QC13505 Date Analyzed: 8/3/01
Analyst: DG Preparation Method: N/A Prep Batch: PB11516 Date Prepared: 8/3/01

Param	Flag	Result	Units	Dilution	RDL
Bromide		<20.0	mg/L	10	2
CL		14,000	mg/L	200	2
Fluoride		8.7	mg/L	10	0.20
Nitrite-N		<20.0	mg/L	200	0.10
Nitrate-N		360	mg/L	200	0.10
Sulfate		20,000	mg/L	200	1

Sample: 176349 - 0143-HMW36-0801

Analysis: Ion Chromatography (IC) (El Paso) Analytical Method: E 300.0 QC Batch: QC13505 Date Analyzed: 8/3/01
Analyst: DG Preparation Method: N/A Prep Batch: PB11516 Date Prepared: 8/3/01

Param	Flag	Result	Units	Dilution	RDL
Bromide		<20.0	mg/L	10	2
CL		1,500	mg/L	100	2
Fluoride		3.9	mg/L	10	0.20
Nitrite-N		<1.0	mg/L	10	0.10
Nitrate-N		13	mg/L	10	0.10
Sulfate		5,300	mg/L	100	1

Quality Control Report
Method Blank

Method Blank QCBatch: QC13505

Param	Flag	Results	Units	Reporting Limit
Bromide		<2.0	mg/L	2
CL		<2.0	mg/L	2
Fluoride		<0.20	mg/L	0.20
Nitrite-N		<0.10	mg/L	0.10
Nitrate-N		<0.10	mg/L	0.10
Sulfate		<1.0	mg/L	1

Method Blank QCBatch: QC13642

Param	Flag	Results	Units	Reporting Limit
Bromide		<2.0	mg/L	2
CL		<2.0	mg/L	2
Fluoride		<0.20	mg/L	0.20
Nitrite-N		<0.10	mg/L	0.10
Nitrate-N		<0.10	mg/L	0.10
Sulfate		<1.0	mg/L	1

Method Blank QCBatch: QC13679

Param	Flag	Results	Units	Reporting Limit
Bromide		<2.0	mg/L	2
CL		<2.0	mg/L	2
Fluoride		<0.20	mg/L	0.20
Nitrite-N		<0.10	mg/L	0.10
Nitrate-N		<0.10	mg/L	0.10
Sulfate		<1.0	mg/L	1

Quality Control Report
Matrix Spikes and Duplicate Spikes

Matrix Spikes QCBatch: QC13505

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Bromide	190	190	mg/L	1	200	<20.0	95	0	80 - 120	20
CL	3,380	3,380	mg/L	1	2000	1,500	94	0	80 - 120	20
Fluoride	98.8	99.4	mg/L	1	100	3.9	94	0	80 - 113	20
Nitrite-N	48.1	48.3	mg/L	1	50	<1.0	96	0	80 - 120	20

Continued . . .

... Continued

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Nitrate-N	57.3	57.8	mg/L	1	50	13	88	1	84 - 105	20
Sulfate	10,200	10,300	mg/L	1	5000	5,300	98	2	80 - 120	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spikes QCBatch: QC13642

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Bromide	20.2	20.3	mg/L	1	20	<2.0	101	0	80 - 120	20
CL	2340	2330	mg/L	1	2000	290	102	0	80 - 120	20
Fluoride	12.4	12.4	mg/L	1	10	3.2	92	0	80 - 113	20
Nitrite-N	580	580	mg/L	1	500	<10.0	116	0	80 - 120	20
Nitrate-N	16.6	16.6	mg/L	1	5	12	92	0	84 - 105	20
Sulfate	8760	8690	mg/L	1	5000	3,200	111	1	80 - 120	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spikes QCBatch: QC13679

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Bromide	96.0	95.7	mg/L	1	100	<10.0	96	0	80 - 120	20
CL	2540	2530	mg/L	1	2000	550	99	0	80 - 120	20
Fluoride	51.2	51.4	mg/L	1	50	3.5	95	0	80 - 113	20
Nitrite-N	24.0	23.7	mg/L	1	25	<0.5	96	1	80 - 120	20
Nitrate-N	42.1	42.0	mg/L	1	25	19	92	0	84 - 105	20
Sulfate	10600	10500	mg/L	1	5000	5,500	102	1	80 - 120	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Quality Control Report
Continuing Calibration Verification Standards

CCV (1) QCBatch: QC13505

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Bromide		mg/L	20	20.2	101	90 - 110	8/3/01
CL		mg/L	20	20.2	101	90 - 110	8/3/01
Fluoride		mg/L	10	10.3	103	90 - 110	8/3/01
Nitrite-N		mg/L	5	5.08	101	90 - 110	8/3/01
Nitrate-N		mg/L	5	4.78	95	90 - 110	8/3/01
Sulfate		mg/L	50	47.8	95	90 - 110	8/3/01

ICV (1) QCBatch: QC13505

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Bromide		mg/L	20	20.3	101	90 - 110	8/3/01
CL		mg/L	20	20.3	101	90 - 110	8/3/01
Fluoride		mg/L	10	10.0	100	90 - 110	8/3/01
Nitrite-N		mg/L	5	4.99	99	90 - 110	8/3/01
Nitrate-N		mg/L	5	4.78	95	90 - 110	8/3/01
Sulfate		mg/L	50	48.0	96	90 - 110	8/3/01

CCV (1) QCBatch: QC13642

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Bromide		mg/L	20	20.2	101	90 - 110	8/2/01
CL		mg/L	20	20.2	101	90 - 110	8/2/01
Fluoride		mg/L	10	10.4	104	90 - 110	8/2/01
Nitrite-N		mg/L	5	4.82	96	90 - 110	8/2/01
Nitrate-N		mg/L	5	4.78	95	90 - 110	8/2/01
Sulfate		mg/L	50	47.8	95	90 - 110	8/2/01

ICV (1) QCBatch: QC13642

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Bromide		mg/L	20	20.4	102	90 - 110	8/2/01
CL		mg/L	20	20.2	101	90 - 110	8/2/01
Fluoride		mg/L	10	10.2	102	90 - 110	8/2/01
Nitrite-N		mg/L	5	4.77	95	90 - 110	8/2/01
Nitrate-N		mg/L	5	4.81	96	90 - 110	8/2/01
Sulfate		mg/L	50	47.8	95	90 - 110	8/2/01

CCV (1) QCBatch: QC13679

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Bromide		mg/L	20	20.4	102	90 - 110	8/1/01
CL		mg/L	20	20.4	102	90 - 110	8/1/01
Fluoride		mg/L	10	10.6	106	90 - 110	8/1/01
Nitrite-N		mg/L	5	4.84	96	90 - 110	8/1/01
Nitrate-N		mg/L	5	4.81	96	90 - 110	8/1/01
Sulfate		mg/L	50	48.2	96	90 - 110	8/1/01

ICV (1)

QCBatch: QC13679

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Bromide		mg/L	20	20.2	101	90 - 110	8/1/01
CL		mg/L	20	20.1	100	90 - 110	8/1/01
Fluoride		mg/L	10	10.4	104	90 - 110	8/1/01
Nitrite-N		mg/L	5	5.46	109	90 - 110	8/1/01
Nitrate-N		mg/L	5	4.76	95	90 - 110	8/1/01
Sulfate		mg/L	50	47.6	95	90 - 110	8/1/01

Subbed Analysis Results and Quality Control

- **Ammonium Perchlorate**
- **Herbicides**
- **Pesticides**

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
TraceAnalysis, Inc.
6701 Aberdeen Ave, Suite 9
Lubbock, TX 79424-

Report Date: *17-Aug-01*

Attn: Nel Green

Phone: (800) 378-1296 **Ext:**
FAX: (806) 794-1298

Our Lab #: 080301008
Date Logged-In: 8/3/01
Matrix: Water
Project #: H. Chrome Site

Your Sample ID: 0143-HMW-43-0701
Sample Source: Groundwater Monitoring
Client Project #:
PO#: 800GG/080303
Date Submitted to Lab: 8/3/2001

- COLLECTION INFORMATION -

Date/Time/By: 7/31/01 3:07 PM

Test Group	EPA Method	Test	Result	Units	Analysis Date	Analyst	WS#
NH4CLO4	314.0	Ammonium Perchlorate, aq	< 59.1	ug/L	8/13/01	JMN	3089
	Note:	Sample diluted 10X due to background conductivity					

End of Report

Report Approved By: R Mosher

Arizona Lab License No. AZ0009

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PHONE 520-573-6565 • 1-800-879-2835 • FAX 520-573-6550

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Aqua Tech Environmental Laboratories, Inc.

- QUALITY CONTROL REPORT -

Printed: 8/17/2001

WS#	Lab#	Test ID	QC Code	Result	Units	True Added	-- QC Calculations -- QC1	-- QC Calculations -- QC2	Lower Limit	Upper Limit
3089	080301009M	PER	M	25.5	ug/L	25	102 %R: *	3 %RPD	0	
3089	080301009S	PER	S	24.7	ug/L	25	99 %R: *		0	
3089	Blank	PER	B	0.00	ug/L	0				
3089	Calib Check	PER	K	108	ug/L	100	108 %R: *		0	
3089	Calib Check	PER	K	20.6	ug/L	20	103 %R: *		0	
3089	Calib Check	PER	K	20.7	ug/L	20	104 %R: *		0	
3089	Calib Check	PER	K	21.5	ug/L	20	108 %R: *		0	
3089	Calib Check	PER	K	5.94	ug/L	5	119 %R: *		0	
3089	Control	PER	C	26.5	ug/L	25	106 %R: *		0	
3089	LCS	PER	C	22.1	ug/L	25	88 %R: *		0	

QC Code Legend

B	Blanks	K	Calibration Checks	S	Spikes
C	Control Samples	M	Matrix Spike Duplicates		
D	Duplicates	R	Surrogates		

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
TraceAnalysis, Inc.
6701 Aberdeen Ave, Suite 9
Lubbock, TX 79424-

Attn: Nel Green

Report Date: *17-Aug-01*

Phone: (800) 378-1296 **Ext:**
FAX: (806) 794-1298

Our Lab #: 080301007
Date Logged-In: 8/3/01
Matrix: Water
Project #: II. Chrome Site

Your Sample ID: 0143-HMW-13QC-0701
Sample Source: Groundwater Monitoring
Client Project #:
PO#: 800GG/080303
Date Submitted to Lab: 8/3/2001

- COLLECTION INFORMATION -

Date/Time/By: 7/31/01 2:37 PM

Test Group	EPA Method	Test	Result	Units	Analysis Date	Analyst	WS#
NH4CLO4	314.0	Ammonium Perchlorate, aq	< 118	ug/L	8/13/01	JMN	3089

Note: Sample diluted 20X due to background conductivity

End of Report

Report Approved By: R Mosher

Arizona Lab License No. AZ0009

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- QUALITY CONTROL REPORT -

Printed: 8/17/2001

WS#	Lab#	Test ID	QC Code	Result	Units	True Added	-- QC Calculations -- QC1	-- QC Calculations -- QC2	Lower Limit	Upper Limit
3089	080301009M	PER	M	25.5	ug/L	25	102 %R: *	3 %RPD	0	
3089	080301009S	PER	S	24.7	ug/L	25	99 %R: *		0	
3089	Blank	PER	B	0.00	ug/L	0				
3089	Calib Check	PER	K	108	ug/L	100	108 %R: *		0	
3089	Calib Check	PER	K	20.6	ug/L	20	103 %R: *		0	
3089	Calib Check	PER	K	20.7	ug/L	20	104 %R: *		0	
3089	Calib Check	PER	K	21.5	ug/L	20	108 %R: *		0	
3089	Calib Check	PER	K	5.94	ug/L	5	119 %R: *		0	
3089	Control	PER	C	26.5	ug/L	25	106 %R: *		0	
3089	LCS	PER	C	22.1	ug/L	25	88 %R: *		0	

QC Code Legend

B	Blanks	K	Calibration Checks	S	Spikes
C	Control Samples	M	Matrix Spike Duplicates		
D	Duplicates	R	Surrogates		

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
TraceAnalysis, Inc.
6701 Aberdeen Ave, Suite 9
Lubbock, TX 79424-

Attn: Nel Green

Report Date: *17-Aug-01*

Phone: (800) 378-1296 **Ext:**
FAX: (806) 794-1298

Our Lab #: 080301006
Date Logged-In: 8/3/01
Matrix: Water
Project #: H. Chrome Site

Your Sample ID: 0143-HMW-13-0701
Sample Source: Groundwater Monitoring
Client Project #:
PO#: 800GG/080303
Date Submitted to Lab: 8/3/2001

- COLLECTION INFORMATION -

Date/Time/By: 7/31/01 2:37 PM

Test Group	EPA Method	Test	Result	Units	Analysis Date	Analyst	WS#
NH4CLO4	314.0	Ammonium Perchlorate, aq	< 118	ug/L	8/13/01	JMN	3089

Note: Sample diluted 20X due to background conductivity

End of Report

Report Approved By: R Mosher

Arizona Lab License No. AZ0009

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Aqua Tech Environmental Laboratories, Inc.

- QUALITY CONTROL REPORT -

Printed: 8/17/2001

WS#	Lab#	Test ID	QC Code	Result	Units	True Added	-- QC Calculations -- QC1	-- QC Calculations -- QC2	Lower Limit	Upper Limit
3089	080301009M	PER	M	25.5	ug/L	25	102 %R: *	3 %RPD	0	
3089	080301009S	PER	S	24.7	ug/L	25	99 %R: *		0	
3089	Blank	PER	B	0.00	ug/L	0				
3089	Calib Check	PER	K	108	ug/L	100	108 %R: *		0	
3089	Calib Check	PER	K	20.6	ug/L	20	103 %R: *		0	
3089	Calib Check	PER	K	20.7	ug/L	20	104 %R: *		0	
3089	Calib Check	PER	K	21.5	ug/L	20	108 %R: *		0	
3089	Calib Check	PER	K	5.94	ug/L	5	119 %R: *		0	
3089	Control	PER	C	26.5	ug/L	25	106 %R: *		0	
3089	LCS	PER	C	22.1	ug/L	25	88 %R: *		0	

QC Code Legend

B	Blanks	K	Calibration Checks	S	Spikes
C	Control Samples	M	Matrix Spike Duplicates		
D	Duplicates	R	Surrogates		

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Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
TraceAnalysis, Inc.
6701 Aberdeen Ave, Suite 9
Lubbock, TX 79424-

Attn: Nel Green

Report Date: *17-Aug-01*

Phone: (800) 378-1296 **Ext:**
FAX: (806) 794-1298

Our Lab #: 080301005
Date Logged-In: 8/3/01
Matrix: Water
Project #: H. Chrome Site

Your Sample ID: 0143-HMW-39QC-0701
Sample Source: Groundwater Monitoring
Client Project #:
PO#: 800GG/080303
Date Submitted to Lab: 8/3/2001

- COLLECTION INFORMATION -

Date/Time/By: 7/31/01 12:07 PM

Test Group	EPA Method	Test	Result	Units	Analysis Date	Analyst	WS#
NH4CLO4	314.0	Ammonium Perchlorate, aq	< 118	ug/L	8/13/01	JMN	3089

Note: Sample diluted 20X due to background conductivity

End of Report

Report Approved By: R Mosher

Arizona Lab License No. AZ0009

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- QUALITY CONTROL REPORT -

Printed: 8/17/2001

WS#	Lab#	Test ID	QC Code	Result	Units	True Added	-- QC Calculations -- QC1	-- QC Calculations -- QC2	Lower Limit	Upper Limit
3089	080301009M	PER	M	25.5	ug/L	25	102 %R: *	3 %RPD	0	
3089	080301009S	PER	S	24.7	ug/L	25	99 %R: *		0	
3089	Blank	PER	B	0.00	ug/L	0				
3089	Calib Check	PER	K	108	ug/L	100	108 %R: *		0	
3089	Calib Check	PER	K	20.6	ug/L	20	103 %R: *		0	
3089	Calib Check	PER	K	20.7	ug/L	20	104 %R: *		0	
3089	Calib Check	PER	K	21.5	ug/L	20	108 %R: *		0	
3089	Calib Check	PER	K	5.94	ug/L	5	119 %R: *		0	
3089	Control	PER	C	26.5	ug/L	25	106 %R: *		0	
3089	LCS	PER	C	22.1	ug/L	25	88 %R: *		0	

QC Code Legend

B	Blanks	K	Calibration Checks	S	Spikes
C	Control Samples	M	Matrix Spike Duplicates		
D	Duplicates	R	Surrogates		

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Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
TraceAnalysis, Inc.
6701 Aberdeen Ave, Suite 9
Lubbock, TX 79424-

Report Date: *17-Aug-01*

Phone: (800) 378-1296 **Ext:**

Attn: Nel Green

FAX: (806) 794-1298

Our Lab #: 080301004 **Your Sample ID:** 0143-HMW-39-0701
Date Logged-In: 8/3/01 **Sample Source:** Groundwater Monitoring
Matrix: Water **Client Project #:** **PO#:** 800GG/080303
Project #: H. Chrome Site **Date Submitted to Lab:** 8/3/2001

- COLLECTION INFORMATION -

Date/Time/By: 7/31/01 12:07 PM

Test Group	EPA Method	Test	Result	Units	Analysis Date	Analyst	WS#
NH4CLO4	314.0	Ammonium Perchlorate, aq	< 295	ug/L	8/13/01	JMN	3089

Note: Sample diluted 50X due to background conductivity

End of Report

Report Approved By: R Mosher

Arizona Lab License No. AZ0009

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- QUALITY CONTROL REPORT -

Printed: 8/17/2001

WS#	Lab#	Test ID	QC Code	Result	Units	True Added	-- QC Calculations -- QC1	-- QC Calculations -- QC2	Lower Limit	Upper Limit
3089	080301009M	PER	M	25.5	ug/L	25	102 %R: *	3 %RPD	0	
3089	080301009S	PER	S	24.7	ug/L	25	99 %R: *		0	
3089	Blank	PER	B	0.00	ug/L	0				
3089	Calib Check	PER	K	108	ug/L	100	108 %R: *		0	
3089	Calib Check	PER	K	20.6	ug/L	20	103 %R: *		0	
3089	Calib Check	PER	K	20.7	ug/L	20	104 %R: *		0	
3089	Calib Check	PER	K	21.5	ug/L	20	108 %R: *		0	
3089	Calib Check	PER	K	5.94	ug/L	5	119 %R: *		0	
3089	Control	PER	C	26.5	ug/L	25	106 %R: *		0	
3089	LCS	PER	C	22.1	ug/L	25	88 %R: *		0	

QC Code Legend

B	Blanks	K	Calibration Checks	S	Spikes
C	Control Samples	M	Matrix Spike Duplicates		
D	Duplicates	R	Surrogates		

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Client #: I2565
TraceAnalysis, Inc.
6701 Aberdeen Ave, Suite 9
Lubbock, TX 79424-

Attn: Nel Green

Report Date: *17-Aug-01*

Phone: (800) 378-1296 **Ext:**
FAX: (806) 794-1298

Our Lab #: 080301003
Date Logged-In: 8/3/01
Matrix: Water
Project #: H. Chrome Site

Your Sample ID: 0143-HMW-11-0701
Sample Source: Groundwater Monitoring
Client Project #:
PO#: 800GG/080303
Date Submitted to Lab: 8/3/2001

- COLLECTION INFORMATION -

Date/Time/By: 7/31/01 10:54 AM

Test Group	EPA Method	Test	Result	Units	Analysis Date	Analyst	WS#
NH4CLO4	314.0	Ammonium Perchlorate, aq	< 295	ug/L	8/13/01	JMN	3089

Note: Sample diluted 50X due to background conductivity

End of Report

Report Approved By: R Mosher

Arizona Lab License No. AZ0009

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- QUALITY CONTROL REPORT -

Printed: 8/17/2001

WS#	Lab#	Test ID	QC Code	Result	Units	True Added	-- QC Calculations -- QC1	-- QC Calculations -- QC2	Lower Limit	Upper Limit
3089	080301009M	PER	M	25.5	ug/L	25	102 %R: *	3 %RPD	0	
3089	080301009S	PER	S	24.7	ug/L	25	99 %R: *		0	
3089	Blank	PER	B	0.00	ug/L	0				
3089	Calib Check	PER	K	108	ug/L	100	108 %R: *		0	
3089	Calib Check	PER	K	20.6	ug/L	20	103 %R: *		0	
3089	Calib Check	PER	K	20.7	ug/L	20	104 %R: *		0	
3089	Calib Check	PER	K	21.5	ug/L	20	108 %R: *		0	
3089	Calib Check	PER	K	5.94	ug/L	5	119 %R: *		0	
3089	Control	PER	C	26.5	ug/L	25	106 %R: *		0	
3089	LCS	PER	C	22.1	ug/L	25	88 %R: *		0	

QC Code Legend

B	Blanks	K	Calibration Checks	S	Spikes
C	Control Samples	M	Matrix Spike Duplicates		
D	Duplicates	R	Surrogates		

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- CERTIFICATE OF ANALYSIS -

Client #: I2565
TraceAnalysis, Inc.
6701 Aberdeen Ave, Suite 9
Lubbock, TX 79424-

Report Date: *17-Aug-01*

Phone: (800) 378-1296 **Ext:**

Attn: Nel Green

FAX: (806) 794-1298

Our Lab #: 080801032 **Your Sample ID:** 0143-HMW38-0801-176212
Date Logged-In: 8/8/01 **Sample Source:** Groundwater Monitoring
Matrix: Water **Client Project #:** **PO#:** 800GG/080832
Project #: HELSTF Chrom **Date Submitted to Lab:** 8/8/2001

- COLLECTION INFORMATION -

Date/Time/By: 8/1/01 11:00 AM

Test Group	EPA Method	Test	Result	Units	Analysis Date	Analyst	WS#
NH4CLO4	314.0	Ammonium Perchlorate, aq	< 118	ug/L	8/13/01	JMN	3089

Note: Sample diluted 20X due to background conductivity

End of Report

Report Approved By: R Mosher

ATEL

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- QUALITY CONTROL REPORT -

Printed: 8/17/2001

WS#	Lab#	Test ID	QC Code	Result	Units	True Added	-- QC Calculations -- QC1	-- QC Calculations -- QC2	Lower Limit	Upper Limit
3089	080301009M	PER	M	25.5	ug/L	25	102 %R: *	3 %RPD	0	
3089	080301009S	PER	S	24.7	ug/L	25	99 %R: *		0	
3089	Blank	PER	B	0.00	ug/L	0				
3089	Calib Check	PER	K	108	ug/L	100	108 %R: *		0	
3089	Calib Check	PER	K	20.6	ug/L	20	103 %R: *		0	
3089	Calib Check	PER	K	20.7	ug/L	20	104 %R: *		0	
3089	Calib Check	PER	K	21.5	ug/L	20	108 %R: *		0	
3089	Calib Check	PER	K	5.94	ug/L	5	119 %R: *		0	
3089	Control	PER	C	26.5	ug/L	25	106 %R: *		0	
3089	LCS	PER	C	22.1	ug/L	25	88 %R: *		0	

QC Code Legend

B	Blanks	K	Calibration Checks	S	Spikes
C	Control Samples	M	Matrix Spike Duplicates		
D	Duplicates	R	Surrogates		

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Client #: I2565
TraceAnalysis, Inc.
6701 Aberdeen Ave, Suite 9
Lubbock, TX 79424-

Report Date: *17-Aug-01*

Phone: (800) 378-1296 **Ext:**

Attn: Nel Green

FAX: (806) 794-1298

Our Lab #: 080801033
Your Sample ID: 0143-HMW41-0801-176214
Date Logged-In: 8/8/01
Sample Source: Groundwater Monitoring
Matrix: Water
Client Project #:
PO#: 800GG/080832
Project #: HELSTF Chrom
Date Submitted to Lab: 8/8/2001

- COLLECTION INFORMATION -

Date/Time/By: 8/1/01 1:28 PM

Test Group	EPA Method	Test	Result	Units	Analysis Date	Analyst	WS#
NH4CLO4	314.0	Ammonium Perchlorate, aq	< 295	ug/L	8/13/01	JMN	3089

Note: Sample diluted 50X due to background conductivity

End of Report

Report Approved By: R Mosher

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Printed: 8/17/2001

WS#	Lab#	Test ID	QC Code	Result	Units	True Added	-- QC Calculations -- QC1	-- QC Calculations -- QC2	Lower Limit	Upper Limit
3089	080301009M	PER	M	25.5	ug/L	25	102 %R: *	3 %RPD	0	
3089	080301009S	PER	S	24.7	ug/L	25	99 %R: *		0	
3089	Blank	PER	B	0.00	ug/L	0				
3089	Calib Check	PER	K	108	ug/L	100	108 %R: *		0	
3089	Calib Check	PER	K	20.6	ug/L	20	103 %R: *		0	
3089	Calib Check	PER	K	20.7	ug/L	20	104 %R: *		0	
3089	Calib Check	PER	K	21.5	ug/L	20	108 %R: *		0	
3089	Calib Check	PER	K	5.94	ug/L	5	119 %R: *		0	
3089	Control	PER	C	26.5	ug/L	25	106 %R: *		0	
3089	LCS	PER	C	22.1	ug/L	25	88 %R: *		0	

QC Code Legend

B	Blanks	K	Calibration Checks	S	Spikes
C	Control Samples	M	Matrix Spike Duplicates		
D	Duplicates	R	Surrogates		

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Client #: I2565 **Report Date:** *17-Aug-01*

TraceAnalysis, Inc.
6701 Aberdeen Ave, Suite 9
Lubbock, TX 79424-

Phone: (800) 378-1296 **Ext:**

Attn: Nel Green **FAX:** (806) 794-1298

Our Lab #: 080801034 **Your Sample ID:** 0143-HMW37-0801-176216
Date Logged-In: 8/8/01 **Sample Source:** Groundwater Monitoring
Matrix: Water **Client Project #:** **PO#:** 800GG/080832
Project #: HELSTF Chrom **Date Submitted to Lab:** 8/8/2001

- COLLECTION INFORMATION -

Date/Time/By: 8/1/01 1:27 PM

Test Group	EPA Method	Test	Result	Units	Analysis Date	Analyst	WS#
NH4CLO4	314.0	Ammonium Perchlorate, aq	< 118	ug/L	8/13/01	JMN	3089

Note: Sample diluted 20X due to background conductivity

End of Report

Report Approved By: R Mosher

ATEL

Aqua Tech Environmental Laboratories, Inc.

- QUALITY CONTROL REPORT -

Printed: 8/17/2001

WS#	Lab#	Test ID	QC Code	Result	Units	True Added	-- QC Calculations -- QC1	-- QC Calculations -- QC2	Lower Limit	Upper Limit
3089	080301009M	PER	M	25.5	ug/L	25	102 %R: *	3 %RPD	0	
3089	080301009S	PER	S	24.7	ug/L	25	99 %R: *		0	
3089	Blank	PER	B	0.00	ug/L	0				
3089	Calib Check	PER	K	108	ug/L	100	108 %R: *		0	
3089	Calib Check	PER	K	20.6	ug/L	20	103 %R: *		0	
3089	Calib Check	PER	K	20.7	ug/L	20	104 %R: *		0	
3089	Calib Check	PER	K	21.5	ug/L	20	108 %R: *		0	
3089	Calib Check	PER	K	5.94	ug/L	5	119 %R: *		0	
3089	Control	PER	C	26.5	ug/L	25	106 %R: *		0	
3089	LCS	PER	C	22.1	ug/L	25	88 %R: *		0	

QC Code Legend

B	Blanks	K	Calibration Checks	S	Spikes
C	Control Samples	M	Matrix Spike Duplicates		
D	Duplicates	R	Surrogates		

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Client #: I2565 **Report Date:** *17-Aug-01*

TraceAnalysis, Inc.
6701 Aberdeen Ave, Suite 9
Lubbock, TX 79424-

Phone: (800) 378-1296 **Ext:**

Attn: Nel Green **FAX:** (806) 794-1298

Our Lab #: 080801031 **Your Sample ID:** 0143-HMW40-0801-176347
Date Logged-In: 8/8/01 **Sample Source:** Groundwater Monitoring
Matrix: Water **Client Project #:** **PO#:** 800GG/080830
Project #: HELSTF Chrom **Date Submitted to Lab:** 8/8/2001

- COLLECTION INFORMATION -

Date/Time/By: 8/2/01 12:11 PM

Test Group	EPA Method	Test	Result	Units	Analysis Date	Analyst	WS#
NH4CLO4	314.0	Ammonium Perchlorate, aq	< 591	ug/L	8/13/01	JMN	3089

Note: Sample diluted 100X due to background conductivity

End of Report

Report Approved By: R Mosher

ATEL

Aqua Tech Environmental Laboratories, Inc.

- QUALITY CONTROL REPORT -

Printed: 8/17/2001

WS#	Lab#	Test ID	QC Code	Result	Units	True Added	-- QC Calculations -- QC1	-- QC Calculations -- QC2	Lower Limit	Upper Limit
3089	080301009M	PER	M	25.5	ug/L	25	102 %R: *	3 %RPD	0	
3089	080301009S	PER	S	24.7	ug/L	25	99 %R: *		0	
3089	Blank	PER	B	0.00	ug/L	0				
3089	Calib Check	PER	K	108	ug/L	100	108 %R: *		0	
3089	Calib Check	PER	K	20.6	ug/L	20	103 %R: *		0	
3089	Calib Check	PER	K	20.7	ug/L	20	104 %R: *		0	
3089	Calib Check	PER	K	21.5	ug/L	20	108 %R: *		0	
3089	Calib Check	PER	K	5.94	ug/L	5	119 %R: *		0	
3089	Control	PER	C	26.5	ug/L	25	106 %R: *		0	
3089	LCS	PER	C	22.1	ug/L	25	88 %R: *		0	

QC Code Legend

B	Blanks	K	Calibration Checks	S	Spikes
C	Control Samples	M	Matrix Spike Duplicates		
D	Duplicates	R	Surrogates		

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Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
TraceAnalysis, Inc.
6701 Aberdeen Ave, Suite 9
Lubbock, TX 79424-

Attn: Nel Green

Report Date: *17-Aug-01*

Phone: (800) 378-1296 **Ext:**
FAX: (806) 794-1298

Our Lab #: 080801030
Date Logged-In: 8/8/01
Matrix: Water
Project #: HELSTF Chrom

Your Sample ID: 0143-HMW36-0801-176349
Sample Source: Groundwater Monitoring
Client Project #:
PO#: 800GG/080830
Date Submitted to Lab: 8/8/2001

- COLLECTION INFORMATION -

Date/Time/By: 8/2/01 11:17 AM

Test Group	EPA Method	Test	Result	Units	Analysis Date	Analyst	WS#
NH4CLO4	314.0	Ammonium Perchlorate, aq	< 59.1	ug/L	8/13/01	JMN	3089

Note: Sample diluted 10X due to background conductivity

End of Report

Report Approved By: R Mosher

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565 **Report Date:** *23-Aug-01*

Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Attn: Nell Green

Our Lab#: MEL01-09607 **Your Sample ID:** 0143-HMW11-0701-176140
Date Logged In: 8/3/01 **Sample Source:** RCRA
Sample Type: Water **Client Project #:**
Project #: **Date Submitted to Lab:** 8/2/2001 **PO#:** 800GG

- COLLECTION INFORMATION -

Date/Time/By: 7/31/01 3:07 PM

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	8/3/01	8/22/01

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 ug/l	0.02
12674-11-2	Aroclor 1016	< 0.10 ug/l	0.1
11104-28-2	Aroclor 1221	< 0.10 ug/l	0.1
11141-16-5	Aroclor 1232	< 0.10 ug/l	0.1
53469-21-9	Aroclor 1242	< 0.10 ug/l	0.1
12672-29-6	Aroclor 1248	< 0.10 ug/l	0.1
11097-69-1	Aroclor 1254	< 0.10 ug/l	0.1
11096-82-5	Aroclor 1260	< 0.10 ug/l	0.1
319-84-6	alpha-BHC	< 0.02 ug/l	0.02
319-85-7	beta-BHC	< 0.02 ug/l	0.02
319-86-8	delta-BHC	< 0.02 ug/l	0.02
58-89-9	gamma-BHC (Lindane)	< 0.02 ug/l	0.02
57-74-9	Chlordane(Total)	< 0.10 ug/l	0.1
72-54-8	4,4'-DDD	< 0.02 ug/l	0.02
72-55-9	4,4'-DDE	< 0.03 ug/l	0.03
50-29-3	4,4'-DDT	< 0.03 ug/l	0.03
60-57-1	Dieldrin	< 0.02 ug/l	0.02
959-98-8	Endosulfan I	< 0.03 ug/l	0.03
33213-65-9	Endosulfan II	< 0.03 ug/l	0.03
1031-07-8	Endosulfan sulfate	< 0.03 ug/l	0.03

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PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

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Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

CAS Number	Parameter	Result	Typical Report Limit
72-20-8	Endrin	< 0.05 ug/l	0.05
7421-93-4	Endrin aldehyde	< 0.05 ug/l	0.05
53494-70-5	Endrin Ketone	< 0.04 ug/l	0.04
76-44-8	Heptachlor	< 0.03 ug/l	0.03
1024-57-3	Heptachlor epoxide	< 0.03 ug/l	0.03
72-43-5	Methoxychlor	< 0.03 ug/l	0.03
8001-35-2	Toxaphene	< 0.10 ug/l	0.1

EPA Method	Analyst	Prep Date	Analysis Date
8151	DAW	8/3/01	8/15/01

CAS Number	Parameter	Result	Typical Report Limit
75-99-0	Dalapon	< 1.0 ug/l	1
94-82-6	2,4-DB	< 0.20 ug/l	0.2
1918-00-9	Dicamba	< 0.20 ug/l	0.2
94-75-7	2,4-Dichlorophenoxyacetic acid (2,4-D)	< 0.20 ug/l	0.2
120-36-5	Dichloroprop	< 0.20 ug/l	0.2
88-85-7	Dinoseb	< 0.20 ug/l	0.2
94-74-6	MCPA	< 10 ug/l	10
7085-19-0	MCPP	< 10 ug/l	10
93-72-1	Silvex	< 0.20 ug/l	0.2
93-76-5	2,4,5-T	< 0.20 ug/l	0.2

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL01-09607	8081	Decachlorobiphenyl (Surr)	61 %R	20	150
MEL01-09607	8081	Tetrachloro-m-xylene (Surr)	91 %R	40	130
MEL01-09607	8151	DCAA (Surr)	98 %R	19	146

End of Report

Report Approved By: Wade T. DeLong

Wade T. DeLong

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Your Sample ID: 0143-HMW11-0701-176140 *Lab Number MEL01-09607*

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PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565 **Report Date:** *23-Aug-01*

Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Attn: Nell Green

Our Lab#: MEL01-09606 **Your Sample ID:** 0143-HMW13QC-0701-176142
Date Logged In: 8/3/01 **Sample Source:** RCRA
Sample Type: Water **Client Project #:**
Project #: **Date Submitted to Lab:** 8/2/2001 **PO#:** 800GG

- COLLECTION INFORMATION -

Date/Time/By: 7/31/01 2:37 PM

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	8/3/01	8/22/01

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	<0.02 ug/l	0.02
12674-11-2	Aroclor 1016	<0.10 ug/l	0.1
11104-28-2	Aroclor 1221	<0.10 ug/l	0.1
11141-16-5	Aroclor 1232	<0.10 ug/l	0.1
53469-21-9	Aroclor 1242	<0.10 ug/l	0.1
12672-29-6	Aroclor 1248	<0.10 ug/l	0.1
11097-69-1	Aroclor 1254	<0.10 ug/l	0.1
11096-82-5	Aroclor 1260	<0.10 ug/l	0.1
319-84-6	alpha-BHC	<0.02 ug/l	0.02
319-85-7	beta-BHC	<0.02 ug/l	0.02
319-86-8	delta-BHC	<0.02 ug/l	0.02
58-89-9	gamma-BHC (Lindane)	<0.02 ug/l	0.02
57-74-9	Chlordane(Total)	<0.10 ug/l	0.1
72-54-8	4,4'-DDD	<0.02 ug/l	0.02
72-55-9	4,4'-DDE	<0.03 ug/l	0.03
50-29-3	4,4'-DDT	<0.03 ug/l	0.03
60-57-1	Dieldrin	<0.02 ug/l	0.02
959-98-8	Endosulfan I	<0.03 ug/l	0.03
33213-65-9	Endosulfan II	<0.03 ug/l	0.03
1031-07-8	Endosulfan sulfate	<0.03 ug/l	0.03

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CAS Number	Parameter	Result	Typical Report Limit
72-20-8	Endrin	< 0.05 ug/l	0.05
7421-93-4	Endrin aldehyde	< 0.05 ug/l	0.05
53494-70-5	Endrin Ketone	< 0.04 ug/l	0.04
76-44-8	Heptachlor	< 0.03 ug/l	0.03
1024-57-3	Heptachlor epoxide	< 0.03 ug/l	0.03
72-43-5	Methoxychlor	< 0.03 ug/l	0.03
8001-35-2	Toxaphene	< 0.10 ug/l	0.1

EPA Method	Analyst	Prep Date	Analysis Date
8151	DAW	8/3/01	8/15/01

CAS Number	Parameter	Result	Typical Report Limit
75-99-0	Dalapon	< 1.0 ug/l	1
94-82-6	2,4-DB	< 0.20 ug/l	0.2
1918-00-9	Dicamba	< 0.20 ug/l	0.2
94-75-7	2,4-Dichlorophenoxyacetic acid (2,4-D)	< 0.20 ug/l	0.2
120-36-5	Dichloroprop	< 0.20 ug/l	0.2
88-85-7	Dinoseb	< 0.20 ug/l	0.2
94-74-6	MCPA	< 10 ug/l	10
7085-19-0	MCPP	< 10 ug/l	10
93-72-1	Silvex	< 0.20 ug/l	0.2
93-76-5	2,4,5-T	< 0.20 ug/l	0.2

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL01-09606	8081	Decachlorobiphenyl (Surr)	50 %R	20	150
MEL01-09606	8081	Tetrachloro-m-xylene (Surr)	77 %R	40	130
MEL01-09606	8151	DCAA (Surr)	110 %R	19	146

End of Report

Report Approved By: Wade T. DeLong

Wade T. DeLong

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Your Sample ID: 0143-HMW13QC-0701-176142

Lab Number MEL01-09606

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Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-
Attn: Nell Green

Report Date: *23-Aug-01*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL01-09605
Date Logged In: 8/3/01
Sample Type: Water
Project #:

Your Sample ID: 0143-HMW13-0701-176144
Sample Source: RCRA
Client Project #:
Date Submitted to Lab: 8/2/2001 **PO#:** 800GG

- COLLECTION INFORMATION -

Date/Time/By: 7/31/01 2:37 PM

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	8/3/01	8/22/01

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	<0.02 ug/l	0.02
12674-11-2	Aroclor 1016	<0.10 ug/l	0.1
11104-28-2	Aroclor 1221	<0.10 ug/l	0.1
11141-16-5	Aroclor 1232	<0.10 ug/l	0.1
53469-21-9	Aroclor 1242	<0.10 ug/l	0.1
12672-29-6	Aroclor 1248	<0.10 ug/l	0.1
11097-69-1	Aroclor 1254	<0.10 ug/l	0.1
11096-82-5	Aroclor 1260	<0.10 ug/l	0.1
319-84-6	alpha-BHC	<0.02 ug/l	0.02
319-85-7	beta-BHC	<0.02 ug/l	0.02
319-86-8	delta-BHC	<0.02 ug/l	0.02
58-89-9	gamma-BHC (Lindane)	<0.02 ug/l	0.02
57-74-9	Chlordane(Total)	<0.10 ug/l	0.1
72-54-8	4,4'-DDD	<0.02 ug/l	0.02
72-55-9	4,4'-DDE	<0.03 ug/l	0.03
50-29-3	4,4'-DDT	<0.03 ug/l	0.03
60-57-1	Dieldrin	<0.02 ug/l	0.02
959-98-8	Endosulfan I	<0.03 ug/l	0.03
33213-65-9	Endosulfan II	<0.03 ug/l	0.03
1031-07-8	Endosulfan sulfate	<0.03 ug/l	0.03

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CAS Number	Parameter	Result	Typical Report Limit
72-20-8	Endrin	< 0.05 ug/l	0.05
7421-93-4	Endrin aldehyde	< 0.05 ug/l	0.05
53494-70-5	Endrin Ketone	< 0.04 ug/l	0.04
76-44-8	Heptachlor	< 0.03 ug/l	0.03
1024-57-3	Heptachlor epoxide	< 0.03 ug/l	0.03
72-43-5	Methoxychlor	< 0.03 ug/l	0.03
8001-35-2	Toxaphene	< 0.10 ug/l	0.1

EPA Method	Analyst	Prep Date	Analysis Date
8151	DAW	8/3/01	8/15/01

CAS Number	Parameter	Result	Typical Report Limit
75-99-0	Dalapon	< 1.0 ug/l	1
94-82-6	2,4-DB	< 0.20 ug/l	0.2
1918-00-9	Dicamba	< 0.20 ug/l	0.2
94-75-7	2,4-Dichlorophenoxyacetic acid (2,4-D)	< 0.20 ug/l	0.2
120-36-5	Dichloroprop	< 0.20 ug/l	0.2
88-85-7	Dinoseb	< 0.20 ug/l	0.2
94-74-6	MCPA	< 10 ug/l	10
7085-19-0	MCPP	< 10 ug/l	10
93-72-1	Silvex	< 0.20 ug/l	0.2
93-76-5	2,4,5-T	< 0.20 ug/l	0.2

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL01-09605	8081	Decachlorobiphenyl (Surr)	49 %R	20	150
MEL01-09605	8081	Tetrachloro-m-xylene (Surr)	85 %R	40	130
MEL01-09605	8151	DCAA (Surr)	105 %R	19	146

End of Report

Report Approved By: Wade T. DeLong

Wade T. DeLong

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Your Sample ID: 0143-HMW13-0701-176144

Lab Number MEL01-09605

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- CERTIFICATE OF ANALYSIS -

Client #: I2565

Trace Analysis

6701 Aberdeen

Suite 9

Lubbock, TX 79424-

Attn: Nell Green

Report Date: *23-Aug-01*

Phone: (806) 794-1296 **Ext:**

FAX: (806) 794-1298

Our Lab#: MEL01-09604 **Your Sample ID:** 0143-HMW39 QC-0701-176146

Date Logged In: 8/3/01 **Sample Source:** RCRA

Sample Type: Water **Client Project #:**

Project #: **Date Submitted to Lab:** 8/2/2001 **PO#:** 800GG

- COLLECTION INFORMATION -

Date/Time/By: 7/31/01 12:07 PM

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	8/3/01	8/22/01

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 ug/l	0.02
12674-11-2	Aroclor 1016	< 0.10 ug/l	0.1
11104-28-2	Aroclor 1221	< 0.10 ug/l	0.1
11141-16-5	Aroclor 1232	< 0.10 ug/l	0.1
53469-21-9	Aroclor 1242	< 0.10 ug/l	0.1
12672-29-6	Aroclor 1248	< 0.10 ug/l	0.1
11097-69-1	Aroclor 1254	< 0.10 ug/l	0.1
11096-82-5	Aroclor 1260	< 0.10 ug/l	0.1
319-84-6	alpha-BHC	< 0.02 ug/l	0.02
319-85-7	beta-BHC	< 0.02 ug/l	0.02
319-86-8	delta-BHC	< 0.02 ug/l	0.02
58-89-9	gamma-BHC (Lindane)	< 0.02 ug/l	0.02
57-74-9	Chlordane(Total)	< 0.10 ug/l	0.1
72-54-8	4,4'-DDD	< 0.02 ug/l	0.02
72-55-9	4,4'-DDE	< 0.03 ug/l	0.03
50-29-3	4,4'-DDT	< 0.03 ug/l	0.03
60-57-1	Dieldrin	< 0.02 ug/l	0.02
959-98-8	Endosulfan I	< 0.03 ug/l	0.03
33213-65-9	Endosulfan II	< 0.03 ug/l	0.03
1031-07-8	Endosulfan sulfate	< 0.03 ug/l	0.03

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CAS Number	Parameter	Result	Typical Report Limit
72-20-8	Endrin	< 0.05 ug/l	0.05
7421-93-4	Endrin aldehyde	< 0.05 ug/l	0.05
53494-70-5	Endrin Ketone	< 0.04 ug/l	0.04
76-44-8	Heptachlor	< 0.03 ug/l	0.03
1024-57-3	Heptachlor epoxide	< 0.03 ug/l	0.03
72-43-5	Methoxychlor	< 0.03 ug/l	0.03
8001-35-2	Toxaphene	< 0.10 ug/l	0.1

EPA Method	Analyst	Prep Date	Analysis Date
8151	DAW	8/3/01	8/14/01

CAS Number	Parameter	Result	Typical Report Limit
75-99-0	Dalapon	< 1.0 ug/l	1
94-82-6	2,4-DB	< 0.20 ug/l	0.2
1918-00-9	Dicamba	< 0.20 ug/l	0.2
94-75-7	2,4-Dichlorophenoxyacetic acid (2,4-D)	< 0.20 ug/l	0.2
120-36-5	Dichloroprop	< 0.20 ug/l	0.2
88-85-7	Dinoseb	< 0.20 ug/l	0.2
94-74-6	MCPA	< 10 ug/l	10
7085-19-0	MCPP	< 10 ug/l	10
93-72-1	Silvex	< 0.20 ug/l	0.2
93-76-5	2,4,5-T	< 0.20 ug/l	0.2

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL01-09604	8081	Decachlorobiphenyl (Surr)	73 %R	20	150
MEL01-09604	8081	Tetrachloro-m-xylene (Surr)	95 %R	40	130
MEL01-09604	8151	DCAA (Surr)	111 %R	19	146

End of Report

Report Approved By: Wade T. DeLong

Wade T. DeLong

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Your Sample ID: 0143-HMW39 QC-0701-176146

Lab Number MEL01-09604

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Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565

Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-

Attn: Nell Green

Report Date: *23-Aug-01*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL01-09603 **Your Sample ID:** 0143-HMW39-0701-176148
Date Logged In: 8/3/01 **Sample Source:** RCRA
Sample Type: Water **Client Project #:**
Project #: **Date Submitted to Lab:** 8/2/2001 **PO#:** 800GG

- COLLECTION INFORMATION -

Date/Time/By: 7/31/01 12:07 PM

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	8/3/01	8/22/01

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	<0.02 ug/l	0.02
12674-11-2	Aroclor 1016	<0.10 ug/l	0.1
11104-28-2	Aroclor 1221	<0.10 ug/l	0.1
11141-16-5	Aroclor 1232	<0.10 ug/l	0.1
53469-21-9	Aroclor 1242	<0.10 ug/l	0.1
12672-29-6	Aroclor 1248	<0.10 ug/l	0.1
11097-69-1	Aroclor 1254	<0.10 ug/l	0.1
11096-82-5	Aroclor 1260	<0.10 ug/l	0.1
319-84-6	alpha-BHC	<0.02 ug/l	0.02
319-85-7	beta-BHC	<0.02 ug/l	0.02
319-86-8	delta-BHC	<0.02 ug/l	0.02
58-89-9	gamma-BHC (Lindane)	<0.02 ug/l	0.02
57-74-9	Chlordane(Total)	<0.10 ug/l	0.1
72-54-8	4,4'-DDD	<0.02 ug/l	0.02
72-55-9	4,4'-DDE	<0.03 ug/l	0.03
50-29-3	4,4'-DDT	<0.03 ug/l	0.03
60-57-1	Dieldrin	<0.02 ug/l	0.02
959-98-8	Endosulfan I	<0.03 ug/l	0.03
33213-65-9	Endosulfan II	<0.03 ug/l	0.03
1031-07-8	Endosulfan sulfate	<0.03 ug/l	0.03

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CAS Number	Parameter	Result	Typical Report Limit
72-20-8	Endrin	< 0.05 ug/l	0.05
7421-93-4	Endrin aldehyde	< 0.05 ug/l	0.05
53494-70-5	Endrin Ketone	< 0.04 ug/l	0.04
76-44-8	Heptachlor	< 0.03 ug/l	0.03
1024-57-3	Heptachlor epoxide	< 0.03 ug/l	0.03
72-43-5	Methoxychlor	< 0.03 ug/l	0.03
8001-35-2	Toxaphene	< 0.10 ug/l	0.1

EPA Method	Analyst	Prep Date	Analysis Date
8151	DAW	8/3/01	8/14/01

CAS Number	Parameter	Result	Typical Report Limit
75-99-0	Dalapon	< 1.0 ug/l	1
94-82-6	2,4-DB	< 0.20 ug/l	0.2
1918-00-9	Dicamba	< 0.20 ug/l	0.2
94-75-7	2,4-Dichlorophenoxyacetic acid (2,4-D)	< 0.20 ug/l	0.2
120-36-5	Dichloroprop	< 0.20 ug/l	0.2
88-85-7	Dinoseb	< 0.20 ug/l	0.2
94-74-6	MCPA	< 10 ug/l	10
7085-19-0	MCPP	< 10 ug/l	10
93-72-1	Silvex	< 0.20 ug/l	0.2
93-76-5	2,4,5-T	< 0.20 ug/l	0.2

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL01-09603	8081	Decachlorobiphenyl (Surr)	68 %R	20	150
MEL01-09603	8081	Tetrachloro-m-xylene (Surr)	94 %R	40	130
MEL01-09603	8151	DCAA (Surr)	96 %R	19	146

End of Report

Report Approved By: Wade T. DeLong

Wade T. DeLong

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Your Sample ID: 0143-HMW39-0701-176148 *Lab Number MEL01-09603*

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PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

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Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565 **Report Date:** *23-Aug-01*

Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Attn: Nell Green

Our Lab#: MEL01-09602 **Your Sample ID:** 0143-HMW11-0701-176150
Date Logged In: 8/3/01 **Sample Source:** RCRA
Sample Type: Water **Client Project #:**
Project #: **Date Submitted to Lab:** 8/2/2001 **PO#:** 800GG

- COLLECTION INFORMATION -

Date/Time/By: 7/31/01 10:54 AM

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	8/3/01	8/22/01

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 ug/l	0.02
12674-11-2	Aroclor 1016	< 0.10 ug/l	0.1
11104-28-2	Aroclor 1221	< 0.10 ug/l	0.1
11141-16-5	Aroclor 1232	< 0.10 ug/l	0.1
53469-21-9	Aroclor 1242	< 0.10 ug/l	0.1
12672-29-6	Aroclor 1248	< 0.10 ug/l	0.1
11097-69-1	Aroclor 1254	< 0.10 ug/l	0.1
11096-82-5	Aroclor 1260	< 0.10 ug/l	0.1
319-84-6	alpha-BHC	< 0.02 ug/l	0.02
319-85-7	beta-BHC	< 0.02 ug/l	0.02
319-86-8	delta-BHC	< 0.02 ug/l	0.02
58-89-9	gamma-BHC (Lindane)	< 0.02 ug/l	0.02
57-74-9	Chlordane(Total)	< 0.10 ug/l	0.1
72-54-8	4,4'-DDD	< 0.02 ug/l	0.02
72-55-9	4,4'-DDE	< 0.03 ug/l	0.03
50-29-3	4,4'-DDT	< 0.03 ug/l	0.03
60-57-1	Dieldrin	< 0.02 ug/l	0.02
959-98-8	Endosulfan I	< 0.03 ug/l	0.03
33213-65-9	Endosulfan II	< 0.03 ug/l	0.03
1031-07-8	Endosulfan sulfate	< 0.03 ug/l	0.03

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Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

CAS Number	Parameter	Result	Typical Report Limit
72-20-8	Endrin	< 0.05 ug/l	0.05
7421-93-4	Endrin aldehyde	< 0.05 ug/l	0.05
53494-70-5	Endrin Ketone	< 0.04 ug/l	0.04
76-44-8	Heptachlor	< 0.03 ug/l	0.03
1024-57-3	Heptachlor epoxide	< 0.03 ug/l	0.03
72-43-5	Methoxychlor	< 0.03 ug/l	0.03
8001-35-2	Toxaphene	< 0.10 ug/l	0.1

EPA Method	Analyst	Prep Date	Analysis Date
8151	DAW	8/3/01	8/14/01

CAS Number	Parameter	Result	Typical Report Limit
75-99-0	Dalapon	< 1.0 ug/l	1
94-82-6	2,4-DB	< 0.20 ug/l	0.2
1918-00-9	Dicamba	< 0.20 ug/l	0.2
94-75-7	2,4-Dichlorophenoxyacetic acid (2,4-D)	< 0.20 ug/l	0.2
120-36-5	Dichloroprop	< 0.20 ug/l	0.2
88-85-7	Dinoseb	< 0.20 ug/l	0.2
94-74-6	MCPA	< 10 ug/l	10
7085-19-0	MCPP	< 10 ug/l	10
93-72-1	Silvex	< 0.20 ug/l	0.2
93-76-5	2,4,5-T	< 0.20 ug/l	0.2

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL01-09602	8081	Decachlorobiphenyl (Surr)	58 %R	20	150
MEL01-09602	8081	Tetrachloro-m-xylene (Surr)	89 %R	40	130
MEL01-09602	8151	DCAA (Surr)	103 %R	19	146

End of Report

Report Approved By: Wade T. DeLong

Wade T. DeLong

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Your Sample ID: 0143-HMW11-0701-176150 *Lab Number MEL01-09602*

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565 **Report Date:** *23-Aug-01*

Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Attn: Nell Green

Our Lab#: MEL01-09738 **Your Sample ID:** 0143-HMW38-0801-176212
Date Logged In: 8/7/01 **Sample Source:** RCRA
Sample Type: Water **Client Project #:**
Project #: **Date Submitted to Lab:** 8/3/2001 **PO#:** 800GG

- COLLECTION INFORMATION -

Date/Time/By: 8/1/01 11:00 AM

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	8/6/01	8/23/01

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 ug/l	0.02
12674-11-2	Aroclor 1016	< 0.10 ug/l	0.1
11104-28-2	Aroclor 1221	< 0.10 ug/l	0.1
11141-16-5	Aroclor 1232	< 0.10 ug/l	0.1
53469-21-9	Aroclor 1242	< 0.10 ug/l	0.1
12672-29-6	Aroclor 1248	< 0.10 ug/l	0.1
11097-69-1	Aroclor 1254	< 0.10 ug/l	0.1
11096-82-5	Aroclor 1260	< 0.10 ug/l	0.1
319-84-6	alpha-BHC	< 0.02 ug/l	0.02
319-85-7	beta-BHC	< 0.02 ug/l	0.02
319-86-8	delta-BHC	< 0.02 ug/l	0.02
58-89-9	gamma-BHC (Lindane)	< 0.02 ug/l	0.02
57-74-9	Chlordane(Total)	< 0.10 ug/l	0.1
72-54-8	4,4'-DDD	< 0.02 ug/l	0.02
72-55-9	4,4'-DDE	< 0.03 ug/l	0.03
50-29-3	4,4'-DDT	< 0.03 ug/l	0.03
60-57-1	Dieldrin	< 0.02 ug/l	0.02
959-98-8	Endosulfan I	< 0.03 ug/l	0.03
33213-65-9	Endosulfan II	< 0.03 ug/l	0.03
1031-07-8	Endosulfan sulfate	< 0.03 ug/l	0.03

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CAS Number	Parameter	Result	Typical Report Limit
72-20-8	Endrin	< 0.05 ug/l	0.05
7421-93-4	Endrin aldehyde	< 0.05 ug/l	0.05
53494-70-5	Endrin Ketone	< 0.04 ug/l	0.04
76-44-8	Heptachlor	< 0.03 ug/l	0.03
1024-57-3	Heptachlor epoxide	< 0.03 ug/l	0.03
72-43-5	Methoxychlor	< 0.03 ug/l	0.03
8001-35-2	Toxaphene	< 0.10 ug/l	0.1

EPA Method	Analyst	Prep Date	Analysis Date
8151	DAW	8/6/01	8/15/01

CAS Number	Parameter	Result	Typical Report Limit
75-99-0	Dalapon	< 1.0 ug/l	1
94-82-6	2,4-DB	< 0.20 ug/l	0.2
1918-00-9	Dicamba	< 0.20 ug/l	0.2
94-75-7	2,4-Dichlorophenoxyacetic acid (2,4-D)	< 0.20 ug/l	0.2
120-36-5	Dichloroprop	< 0.20 ug/l	0.2
88-85-7	Dinoseb	< 0.20 ug/l	0.2
94-74-6	MCPA	< 10 ug/l	10
7085-19-0	MCPP	< 10 ug/l	10
93-72-1	Silvex	< 0.20 ug/l	0.2
93-76-5	2,4,5-T	< 0.20 ug/l	0.2

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL01-09738	8081	Decachlorobiphenyl (Surr)	61 %R	20	150
MEL01-09738	8081	Tetrachloro-m-xylene (Surr)	96 %R	40	130
MEL01-09738	8151	DCAA (Surr)	99 %R	19	146

End of Report

Report Approved By: Wade T. DeLong

Wade T. DeLong

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Your Sample ID: 0143-HMW38-0801-176212

Lab Number MEL01-09738

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- CERTIFICATE OF ANALYSIS -

Client #: I2565 **Report Date:** *23-Aug-01*

Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Attn: Nell Green

Our Lab#: MEL01-09739 **Your Sample ID:** 0143-HMW41-0801-176214
Date Logged In: 8/7/01 **Sample Source:** RCRA
Sample Type: Water **Client Project #:**
Project #: **Date Submitted to Lab:** 8/3/2001 **PO#:** 800GG

- COLLECTION INFORMATION -

Date/Time/By: 8/1/01 1:28 PM

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	8/6/01	8/23/01

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	<0.02 ug/l	0.02
12674-11-2	Aroclor 1016	<0.10 ug/l	0.1
11104-28-2	Aroclor 1221	<0.10 ug/l	0.1
11141-16-5	Aroclor 1232	<0.10 ug/l	0.1
53469-21-9	Aroclor 1242	<0.10 ug/l	0.1
12672-29-6	Aroclor 1248	<0.10 ug/l	0.1
11097-69-1	Aroclor 1254	<0.10 ug/l	0.1
11096-82-5	Aroclor 1260	<0.10 ug/l	0.1
319-84-6	alpha-BHC	<0.02 ug/l	0.02
319-85-7	beta-BHC	<0.02 ug/l	0.02
319-86-8	delta-BHC	<0.02 ug/l	0.02
58-89-9	gamma-BHC (Lindane)	<0.02 ug/l	0.02
57-74-9	Chlordane(Total)	<0.10 ug/l	0.1
72-54-8	4,4'-DDD	<0.02 ug/l	0.02
72-55-9	4,4'-DDE	<0.03 ug/l	0.03
50-29-3	4,4'-DDT	<0.03 ug/l	0.03
60-57-1	Dieldrin	<0.02 ug/l	0.02
959-98-8	Endosulfan I	<0.03 ug/l	0.03
33213-65-9	Endosulfan II	<0.03 ug/l	0.03
1031-07-8	Endosulfan sulfate	<0.03 ug/l	0.03

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CAS Number	Parameter	Result	Typical Report Limit
72-20-8	Endrin	< 0.05 ug/l	0.05
7421-93-4	Endrin aldehyde	< 0.05 ug/l	0.05
53494-70-5	Endrin Ketone	< 0.04 ug/l	0.04
76-44-8	Heptachlor	< 0.03 ug/l	0.03
1024-57-3	Heptachlor epoxide	< 0.03 ug/l	0.03
72-43-5	Methoxychlor	< 0.03 ug/l	0.03
8001-35-2	Toxaphene	< 0.10 ug/l	0.1

EPA Method	Analyst	Prep Date	Analysis Date
8151	DAW	8/6/01	8/15/01

CAS Number	Parameter	Result	Typical Report Limit
75-99-0	Dalapon	< 1.0 ug/l	1
94-82-6	2,4-DB	< 0.20 ug/l	0.2
1918-00-9	Dicamba	< 0.20 ug/l	0.2
94-75-7	2,4-Dichlorophenoxyacetic acid (2,4-D)	< 0.20 ug/l	0.2
120-36-5	Dichloroprop	< 0.20 ug/l	0.2
88-85-7	Dinoseb	< 0.20 ug/l	0.2
94-74-6	MCPA	< 10 ug/l	10
7085-19-0	MCPP	< 10 ug/l	10
93-72-1	Silvex	< 0.20 ug/l	0.2
93-76-5	2,4,5-T	< 0.20 ug/l	0.2

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL01-09739	8081	Decachlorobiphenyl (Surr)	66 %R	20	150
MEL01-09739	8081	Tetrachloro-m-xylene (Surr)	102 %R	40	130
MEL01-09739	8151	DCAA (Surr)	92 %R	19	146

End of Report

Report Approved By: Wade T. DeLong

Wade T. DeLong

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- CERTIFICATE OF ANALYSIS -

Client #: I2565

Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-

Attn: Nell Green

Report Date: *23-Aug-01*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL01-09740
Your Sample ID: 0143-HMW37-0801-176216
Date Logged In: 8/7/01
Sample Source: RCRA
Sample Type: Water
Client Project #:
Project #:
Date Submitted to Lab: 8/3/2001
PO#: 800GG

- COLLECTION INFORMATION -

Date/Time/By: 8/1/01 1:27 PM

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	8/6/01	8/23/01

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	<0.02 ug/l	0.02
12674-11-2	Aroclor 1016	<0.10 ug/l	0.1
11104-28-2	Aroclor 1221	<0.10 ug/l	0.1
11141-16-5	Aroclor 1232	<0.10 ug/l	0.1
53469-21-9	Aroclor 1242	<0.10 ug/l	0.1
12672-29-6	Aroclor 1248	<0.10 ug/l	0.1
11097-69-1	Aroclor 1254	<0.10 ug/l	0.1
11096-82-5	Aroclor 1260	<0.10 ug/l	0.1
319-84-6	alpha-BHC	<0.02 ug/l	0.02
319-85-7	beta-BHC	<0.02 ug/l	0.02
319-86-8	delta-BHC	<0.02 ug/l	0.02
58-89-9	gamma-BHC (Lindane)	<0.02 ug/l	0.02
57-74-9	Chlordane(Total)	<0.10 ug/l	0.1
72-54-8	4,4'-DDD	<0.02 ug/l	0.02
72-55-9	4,4'-DDE	<0.03 ug/l	0.03
50-29-3	4,4'-DDT	<0.03 ug/l	0.03
60-57-1	Dieldrin	<0.02 ug/l	0.02
959-98-8	Endosulfan I	<0.03 ug/l	0.03
33213-65-9	Endosulfan II	<0.03 ug/l	0.03
1031-07-8	Endosulfan sulfate	<0.03 ug/l	0.03

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CAS Number	Parameter	Result	Typical Report Limit
72-20-8	Endrin	< 0.05 ug/l	0.05
7421-93-4	Endrin aldehyde	< 0.05 ug/l	0.05
53494-70-5	Endrin Ketone	< 0.04 ug/l	0.04
76-44-8	Heptachlor	< 0.03 ug/l	0.03
1024-57-3	Heptachlor epoxide	< 0.03 ug/l	0.03
72-43-5	Methoxychlor	< 0.03 ug/l	0.03
8001-35-2	Toxaphene	< 0.10 ug/l	0.1

EPA Method	Analyst	Prep Date	Analysis Date
8151	DAW	8/6/01	8/15/01

CAS Number	Parameter	Result	Typical Report Limit
75-99-0	Dalapon	< 1.0 ug/l	1
94-82-6	2,4-DB	< 0.20 ug/l	0.2
1918-00-9	Dicamba	< 0.20 ug/l	0.2
94-75-7	2,4-Dichlorophenoxyacetic acid (2,4-D)	< 0.20 ug/l	0.2
120-36-5	Dichloroprop	< 0.20 ug/l	0.2
88-85-7	Dinoseb	< 0.20 ug/l	0.2
94-74-6	MCPA	< 10 ug/l	10
7085-19-0	MCPP	< 10 ug/l	10
93-72-1	Silvex	< 0.20 ug/l	0.2
93-76-5	2,4,5-T	< 0.20 ug/l	0.2

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL01-09740	8081	Decachlorobiphenyl (Surr)	77 %R	20	150
MEL01-09740	8081	Tetrachloro-m-xylene (Surr)	107 %R	40	130
MEL01-09740	8151	DCAA (Surr)	103 %R	19	146

End of Report

Report Approved By: Wade T. DeLong

Wade T. DeLong

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Your Sample ID: 0143-HMW37-0801-176216

Lab Number MEL01-09740

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Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565

Trace Analysis

6701 Aberdeen

Suite 9

Lubbock, TX 79424-

Attn: Nell Green

Report Date: *29-Aug-01*

Phone: (806) 794-1296 **Ext:**

FAX: (806) 794-1298

Our Lab#: MEL01-09872 **Your Sample ID:** 0143-HMW40-0801-176347

Date Logged In: 8/10/01 **Sample Source:** SDWA/WTP's

Sample Type: Water **Client Project #:**

Project #: **Date Submitted to Lab:** 8/8/2001 **PO#:** 800GG

- COLLECTION INFORMATION -

Date/Time/By: 8/2/01 12:11 PM

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	8/9/01	8/26/01

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 ug/l	0.02
12674-11-2	Aroclor 1016	< 0.10 ug/l	0.1
11104-28-2	Aroclor 1221	< 0.10 ug/l	0.1
11141-16-5	Aroclor 1232	< 0.10 ug/l	0.1
53469-21-9	Aroclor 1242	< 0.10 ug/l	0.1
12672-29-6	Aroclor 1248	< 0.10 ug/l	0.1
11097-69-1	Aroclor 1254	< 0.10 ug/l	0.1
11096-82-5	Aroclor 1260	< 0.10 ug/l	0.1
319-84-6	alpha-BHC	< 0.02 ug/l	0.02
319-85-7	beta-BHC	< 0.02 ug/l	0.02
319-86-8	delta-BHC	< 0.02 ug/l	0.02
58-89-9	gamma-BHC (Lindane)	< 0.02 ug/l	0.02
57-74-9	Chlordane(Total)	< 0.10 ug/l	0.1
72-54-8	4,4'-DDD	< 0.02 ug/l	0.02
72-55-9	4,4'-DDE	< 0.03 ug/l	0.03
50-29-3	4,4'-DDT	< 0.03 ug/l	0.03
60-57-1	Dieldrin	< 0.02 ug/l	0.02
959-98-8	Endosulfan I	< 0.03 ug/l	0.03
33213-65-9	Endosulfan II	< 0.03 ug/l	0.03
1031-07-8	Endosulfan sulfate	< 0.03 ug/l	0.03

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CAS Number	Parameter	Result	Typical Report Limit
72-20-8	Endrin	< 0.05 ug/l	0.05
7421-93-4	Endrin aldehyde	< 0.05 ug/l	0.05
53494-70-5	Endrin Ketone	< 0.04 ug/l	0.04
76-44-8	Heptachlor	< 0.03 ug/l	0.03
1024-57-3	Heptachlor epoxide	< 0.03 ug/l	0.03
72-43-5	Methoxychlor	< 0.03 ug/l	0.03
8001-35-2	Toxaphene	< 0.10 ug/l	0.1

EPA Method	Analyst	Prep Date	Analysis Date
8151	DAW	8/9/01	8/15/01

CAS Number	Parameter	Result	Typical Report Limit
75-99-0	Dalapon	< 1.0 ug/l	1
94-82-6	2,4-DB	< 0.20 ug/l	0.2
1918-00-9	Dicamba	< 0.20 ug/l	0.2
94-75-7	2,4-Dichlorophenoxyacetic acid (2,4-D)	< 0.20 ug/l	0.2
120-36-5	Dichloroprop	< 0.20 ug/l	0.2
88-85-7	Dinoseb	< 0.20 ug/l	0.2
94-74-6	MCPA	< 10 ug/l	10
7085-19-0	MCPP	< 10 ug/l	10
93-72-1	Silvex	< 0.20 ug/l	0.2
93-76-5	2,4,5-T	< 0.20 ug/l	0.2

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL01-09872	8081	Decachlorobiphenyl (Surr)	52 %R	20	150
MEL01-09872	8081	Tetrachloro-m-xylene (Surr)	75 %R	40	130
MEL01-09872	8151	DCAA (Surr)	98 %R	19	146

End of Report

Report Approved By: Wade T. DeLong

Wade T. DeLong

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Your Sample ID: 0143-HMW40-0801-176347

Lab Number MEL01-09872

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565 **Report Date:** *31-Aug-01*

Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Attn: Nell Green

Our Lab#: MEL01-09871 **Your Sample ID:** 0143-HMW36-0801-176349
Date Logged In: 8/10/01 **Sample Source:** SDWA/WTP's
Sample Type: Water **Client Project #:**
Project #: **Date Submitted to Lab:** 8/8/2001 **PO#:** 800GG

- COLLECTION INFORMATION -

Date/Time/By: 8/2/01 11:17 AM

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	8/9/01	8/26/01

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	<0.02 ug/l	0.02
12674-11-2	Aroclor 1016	<0.10 ug/l	0.1
11104-28-2	Aroclor 1221	<0.10 ug/l	0.1
11141-16-5	Aroclor 1232	<0.10 ug/l	0.1
53469-21-9	Aroclor 1242	<0.10 ug/l	0.1
12672-29-6	Aroclor 1248	<0.10 ug/l	0.1
11097-69-1	Aroclor 1254	<0.10 ug/l	0.1
11096-82-5	Aroclor 1260	<0.10 ug/l	0.1
319-84-6	alpha-BHC	<0.02 ug/l	0.02
319-85-7	beta-BHC	<0.02 ug/l	0.02
319-86-8	delta-BHC	<0.02 ug/l	0.02
58-89-9	gamma-BHC (Lindane)	0.03 ug/l	0.02
57-74-9	Chlordane(Total)	<0.10 ug/l	0.1
72-54-8	4,4'-DDD	<0.02 ug/l	0.02
72-55-9	4,4'-DDE	<0.03 ug/l	0.03
50-29-3	4,4'-DDT	<0.03 ug/l	0.03
60-57-1	Dieldrin	<0.02 ug/l	0.02
959-98-8	Endosulfan I	<0.03 ug/l	0.03
33213-65-9	Endosulfan II	<0.03 ug/l	0.03
1031-07-8	Endosulfan sulfate	<0.03 ug/l	0.03

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Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

CAS Number	Parameter	Result	Typical Report Limit
72-20-8	Endrin	ug/l	0.05
7421-93-4	Endrin aldehyde	<0.05 ug/l	0.05
53494-70-5	Endrin Ketone	<0.04 ug/l	0.04
76-44-8	Heptachlor	<0.03 ug/l	0.03
1024-57-3	Heptachlor epoxide	<0.03 ug/l	0.03
72-43-5	Methoxychlor	<0.03 ug/l	0.03
8001-35-2	Toxaphene	<0.10 ug/l	0.1

EPA Method	Analyst	Prep Date	Analysis Date
8151	DAW	8/9/01	8/15/01

CAS Number	Parameter	Result	Typical Report Limit
75-99-0	Dalapon	<1.0 ug/l	1
94-82-6	2,4-DB	<0.20 ug/l	0.2
1918-00-9	Dicamba	<0.20 ug/l	0.2
94-75-7	2,4-Dichlorophenoxyacetic acid (2,4-D)	<0.20 ug/l	0.2
120-36-5	Dichloroprop	<0.20 ug/l	0.2
88-85-7	Dinoseb	<0.20 ug/l	0.2
94-74-6	MCPA	<10 ug/l	10
7085-19-0	MCPP	<10 ug/l	10
93-72-1	Silvex	<0.20 ug/l	0.2
93-76-5	2,4,5-T	<0.20 ug/l	0.2

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL01-09871	8081	Decachlorobiphenyl (Surr)	38 %R	20	150
MEL01-09871	8081	Tetrachloro-m-xylene (Surr)	71 %R	40	130
MEL01-09871	8151	DCAA (Surr)	110 %R	19	146

End of Report

Report Approved By: Wade T. Doty

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Your Sample ID: 0143-HMW36-0801-176349 *Lab Number MEL01-09871*

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H01080205

MEVATEC CORPORATION
P.O. Box 399
Bldg. 126
WSMR, NM 88002
(505) 678-0263

CHAIN OF CUSTODY RECORD

PROJECT NO.: 800 GG

PROJECT NAME: Ground water Sampling at Helstf Chrome Site

SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	VOC's	TPH (mod. Diesel)	TOC	SVOC's	Explosives	Pesticides	Herbicides	Water Quality	Total metal	Ammonia Perchlorate	REMARKS
7-31-01	1507	0143-HMW 43-0701	Water	176140	25	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
7-31-01	1507	0143-HMW 43-0701-TB	Water	176141	2	✓										
						HCL	HCL	H_2SO_4	4°C	4°C	4°C	4°C	4°C	HNO_3	4°C	

PROJECT INFORMATION		
PROJECT MANAGER: Karen Costa	SAMPLES RECEIVED	
	TOTAL NO. OF CONTAINERS	
SHIPPING ID. NO.: 1Z 312 4XW01 4317 6847 3°	CHAIN OF CUSTODY SEALS	
	GOOD CONDITION/CHILLED	
VIA: LAB Courier	CONFORMS TO RECORD	

1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
(PRINTED NAME) Gabriel Garcia	(PRINTED NAME)	(PRINTED NAME) Vicki Hensley
RECEIVED BY: Dolores Aj	RECEIVED BY:	(COMPANY) Race Analysis
(TIME / DATE) 0900 8/01/01	(TIME / DATE)	(TIME / DATE) 10:00 AM 8-2-01

SPECIAL INSTRUCTIONS / COMMENTS:
Please see attached analyte list for details

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CHAIN OF CUSTODY RECORD

PAGE 2 OF 2

PROJECT NO.: 800 GG
PROJECT NAME: Ground water Sampling at Helstf Chrome site
SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	Nitrogen (Nitrate/Nitrite)	Tot. Phosphorus	TKN	Chromium	Diss Ions	Diss Metals				REMARKS
7-31-01	1507	0143-AMW 43-0701	water	176140	25	✓	✓	✓	✓	✓	✓				
		~~0143-AMW 43-0101-TB~~	~~water~~												
						H_2SO_4	H_2SO_4	H_2SO_4	4°C	4°C	HNO_3				

PROJECT INFORMATION			1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER: Karen Costa	SAMPLES RECEIVED		(PRINTED NAME) O. ARTEC GARCIA	(PRINTED NAME)	(PRINTED NAME) Vicki Hensley
SHIPPING ID. NO.: 12312 4XW01 4317 68467 30	TOTAL NO. OF CONTAINERS		RECEIVED BY: Dolores	RECEIVED BY:	(COMPANY) Pace Analysis
VIA: LAB Courier	CHAIN OF CUSTODY SEALS		(TIME / DATE) 0900 8/01/01	(TIME / DATE)	(TIME / DATE) 10:00 8-2-01
	GOOD CONDITION/CHILLED		SPECIAL INSTRUCTIONS / COMMENTS: Please see attached analyte list for details		
	CONFORMS TO RECORD				

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CHAIN OF CUSTODY RECORD

PAGE 1 OF 2

PROJECT NO.: 800 GG

PROJECT NAME: Ground water Sampling at Helstr chrome site

SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	VOC's	TPH (mod) Dro/Gro	TOC	SVOC's	Explosives	Pesticides	Herbicides	Water Quality	Total metal	Ammonia Perchlorate	REMARKS
7/31/01	1437	0143-HMW13-0701-QC	Water	176142	25	✓										
7/31/01	1437	0143-HMW13-0701-QC-TB	Water	176143	2	✓										
						HCL	HCL	H_2SO_4	4°C	4°C	4°C	4°C	4°C	HNO_3	4°C	

PROJECT INFORMATION		
PROJECT MANAGER: Karen Costa	SAMPLES RECEIVED	
SHIPPING ID. NO.: 12 312 4XW01 4317 68467 3°	TOTAL NO. OF CONTAINERS	
VIA: LaB Courier	CHAIN OF CUSTODY SEALS	
	GOOD CONDITION/CHILLED	
	CONFORMS TO RECORD	

1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
(PRINTED NAME)	(PRINTED NAME)	(PRINTED NAME) Vicki Hensley
RECEIVED BY:	RECEIVED BY:	(COMPANY) Trace Analysis
(TIME / DATE) 0900 8/01/01	(TIME / DATE)	(TIME / DATE) 10:00 am 8-2-01

SPECIAL INSTRUCTIONS / COMMENTS:
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CHAIN OF CUSTODY RECORD

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PROJECT NO.: 800 GG
PROJECT NAME: Ground Water Sampling at Helstf Chrome site
SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	Nitrogen (Nitrate/Nitrite)	Total Phosphorus	TKN	Chromium	Diss Ions	Diss Metals					REMARKS
7/31/01	1437	0143-HMW13-01-QC	water	176142	5											
		~~0143-HMW13-01-QC-TB~~	~~Water QC~~													
						H_2SO_4	H_2SO_4	H_2SO_4	4°C	4°C	HNO_3					

PROJECT INFORMATION		
PROJECT MANAGER: Karen Costa	SAMPLES RECEIVED	
SHIPPING ID. NO.: 1Z-312-4X-W01 4317 608 27 30	TOTAL NO. OF CONTAINERS	
VIA: LAB Courier	CHAIN OF CUSTODY SEALS	
	GOOD CONDITION/CHILLED	
	CONFORMS TO RECORD	

1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
(PRINTED NAME)	(PRINTED NAME)	(PRINTED NAME): Vicki Hensley
RECEIVED BY:	RECEIVED BY:	(COMPANY): Racer Analysis
(TIME / DATE): 0900 8/01/01	(TIME / DATE)	(TIME / DATE): 10:00 8-2-01

SPECIAL INSTRUCTIONS / COMMENTS:
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CHAIN OF CUSTODY RECORD

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PROJECT NO.: 800GG
PROJECT NAME: Ground water Sampling at Helstf Chrome site
SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	VOC's	TPH (mod. Diotoro)	TOC	SVOC's	Explosives	Pesticides	Herbicides	Water Quality	Total metal Ammonia Perchorte	REMARKS
7/31/01	1437	0143-HMW13-0701	water	176144	24	✓	✓	✓	✓	✓	✓	✓	✓	✓	
7/31/01	1437	0143-HMW13-0701-TB	water	176145	2	✓									
						HCL	HCL	H_2SO_4	4°C	4°C	4°C	4°C	4°C	HNO_3 4°C	

PROJECT INFORMATION		1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER: Karen Costa	SAMPLES RECEIVED	(PRINTED NAME)	(PRINTED NAME)	(PRINTED NAME) Vicki Hensley
SHIPPING ID. NO. 12312 4XW01 4317 68447 30	TOTAL NO. OF CONTAINERS	RECEIVED BY:	RECEIVED BY:	(COMPANY) Pace Analysis
VIA: LAB Courier	CHAIN OF CUSTODY SEALS	(TIME / DATE) 0900 8/1/01	(TIME / DATE)	(TIME / DATE) 0900 8-2-01
	GOOD CONDITION/CHILLED	SPECIAL INSTRUCTIONS / COMMENTS: Please see attached analyte List for details		
	CONFORMS TO RECORD			

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CHAIN OF CUSTODY RECORD

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PROJECT NO.: 800 GG
PROJECT NAME: Ground water Sampling at HELSTF Chrome Site
SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	Nitrogen (NH3+NH4)	Tot. Phosphorus	TKN	Chromium	Diss Tons	Diss metal	REMARKS
7/31/01	1437	0143-Amw13-07 01	Water	176144	24							
		~~0143-Amw13- 01 FB~~	~~Water~~									
						H2SO4	H2SO4	H2SO4	4°C	4°C	HNO3	

PROJECT INFORMATION	SAMPLES RECEIVED	1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER: Karen Costa	TOTAL NO. OF CONTAINERS	(PRINTED NAME)	(PRINTED NAME)	(PRINTED NAME) Vicki Hensley
SHIPPING ID. NO.: 12312 4XW 01 4317 6867 30	CHAIN OF CUSTODY SEALS	RECEIVED BY:	RECEIVED BY:	(COMPANY) Race Analysis
	GOOD CONDITION/CHILLED	(TIME / DATE) 0900 8/01/01	(TIME / DATE)	(TIME / DATE) 8-2-01
VIA: LAB Courier	CONFORMS TO RECORD	SPECIAL INSTRUCTIONS / COMMENTS: Please See attached analyte List for details		

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PROJECT NO.: 800 GG

PROJECT NAME: Ground water Sampling at Helstr Chrome site

SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	VOC's	TPH (mod) DRO/GRO	TOC	SVOC's	Explosives	Pesticides	Herbicides	Water Quality	Total Metals	Ammonia Perchlorate	REMARKS
7/31/01	1207	0143-HMW39-0701-QC	water	176146	25											
7/31/01	1207	0143-HMW39-0701-QC-TB	water	176147	2											
						HCl	HCl	H_2SO_4	4°C	4°C	4°C	4°C	4°C	HNO_3	4°C	

PROJECT INFORMATION	SAMPLES RECEIVED	
PROJECT MANAGER: Karen Costa	TOTAL NO. OF CONTAINERS	
SHIPPING ID NO.: 12 312 4XW 01 4317 68467 3D	CHAIN OF CUSTODY SEALS	
VIA: LAB Courier	GOOD CONDITION/CHILLED	
	CONFORMS TO RECORD	

1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
(PRINTED NAME)	(PRINTED NAME)	(PRINTED NAME) Vicki Hensley
RECEIVED BY:	RECEIVED BY:	(COMPANY) Pace Analytical
(TIME / DATE) 0900 8/01/01	(TIME / DATE)	(TIME / DATE) 10:00 AM 8-2-01

SPECIAL INSTRUCTIONS / COMMENTS: Please see attached analyte list for details

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CHAIN OF CUSTODY RECORD

PAGE 2 OF 2

PROJECT NO.: 800 GG
PROJECT NAME: Ground water Sampling at Helstr Chrome site
SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	Nitrogen (NH_3 & NH_4)	Tot. Phosphorus	TKN	Chromium	Diss Ions	Diss metals	REMARKS
7/31/01	7/31/01	0143-Hmw39-0701-QC	Water	176146	25							
		~~0143-Hmw39-01-QC-10~~	~~Water~~									
						H_2SO_4	H_2SO_4	H_2SO_4	4°C	4°C	HNO_3	

PROJECT INFORMATION			1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER: Karen Costa	SAMPLES RECEIVED		(PRINTED NAME)	(PRINTED NAME)	(PRINTED NAME) Kelly Hanster
SHIPPING ID. NO.: 1Z 312 4XW 01 4317 4847 3°	TOTAL NO. OF CONTAINERS		RECEIVED BY:	RECEIVED BY:	(COMPANY) Pace Analysis
VIA: LAB Courier	CHAIN OF CUSTODY SEALS		(TIME / DATE) 0900 8/01/01	(TIME / DATE)	(TIME / DATE) 10:00am 8-2-01
	GOOD CONDITION/CHILLED		SPECIAL INSTRUCTIONS / COMMENTS: Please see attached analyte List for details		
	CONFORMS TO RECORD				

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CHAIN OF CUSTODY RECORD

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PROJECT NO.: 800 GG
PROJECT NAME: Ground water Sampling at Helste Chrome Site
SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	VOC'S	TPH (mod Diesel)	DC	SVOC'S	Explosives	Pesticides	Herbicides	Water Quality	Total metals	Ammonia	Perchlorate	REMARKS
7/31/01	1207	0143-HMW39-07 01	Water	176148	25	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
7/31/01	1207	0143-HMW39-07 01-TB	Water	176149	2	✓											
						HCL	HCL	H_2SO_4	4°C	4°C	4°C	4°C	4°C	HNO_3	4°C		

PROJECT INFORMATION	SAMPLES RECEIVED	
PROJECT MANAGER: Karen Costa	TOTAL NO. OF CONTAINERS	
SHIPPING ID. NO.: 12 312 4XW 01 4317 6867 30	CHAIN OF CUSTODY SEALS	
VIA: Lab Courier	GOOD CONDITION/CHILLED	
	CONFORMS TO RECORD	

1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
(PRINTED NAME): Juan Rodriguez	(PRINTED NAME):	(PRINTED NAME): Vicki Hensley
RECEIVED BY:	RECEIVED BY:	(COMPANY): Race Analysis
(TIME / DATE): 0900 8/01/01	(TIME / DATE):	(TIME / DATE): 10:00 AM 8-2-01

SPECIAL INSTRUCTIONS / COMMENTS:
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PROJECT NO.: 800 GG

PROJECT NAME: Ground Water Sampling at Helstr Chrome site

SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	nitrogen (nh3+nh4)	Tot. Phosphorus	TKN	Chromium	Diss Iron	Diss Metals				REMARKS
7/31/01	1207	0143-HMW39-0701	water	176148	25										
~~7/31/01~~	~~1207~~	~~0143-HMW39-0701-TB~~	~~water~~												
						H_2SO_4	H_2SO_4	H_2SO_4	HNO3	HNO3	HNO3				

PROJECT INFORMATION			1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER: Karen Costa	SAMPLES RECEIVED		(PRINTED NAME)	(PRINTED NAME)	(PRINTED NAME) Vicki Hensley
SHIPPING ID. NO. 1Z312 4XW 01 4317 6&67 3	TOTAL NO. OF CONTAINERS		RECEIVED BY:	RECEIVED BY:	(COMPANY) Peace Analysis
VIA: LAB Courier	CHAIN OF CUSTODY SEALS		(TIME / DATE) 0900 8/01/01	(TIME / DATE)	(TIME / DATE) 10:00 8-2-01
	GOOD CONDITION/CHILLED		SPECIAL INSTRUCTIONS / COMMENTS: Please see attached Analyte List for details		
	CONFORMS TO RECORD				

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CHAIN OF CUSTODY RECORD

PROJECT NO.: 800 GG
PROJECT NAME: Ground water Sampling at Helstf Chrome Site
SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	VOC's	TPH (mod) Dieselo	TOC	SVOC's	Explosives	Pesticides	Herbicides	Water Quality	Total Metals	Ammonia Perchlorate	REMARKS
						HCL	HCL	H_2SO_4	4°C	4°C	4°C	4°C	4°C	HNO_3	4°C	
7-31-01	1054	0143-HNW11-07 01	water	176150	25	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
7-31-01	1054	0143-HNW11-07 01-TB	water	176151	2	x										

PROJECT INFORMATION	SAMPLES RECEIVED	1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER: Karen Costa	TOTAL NO. OF CONTAINERS	(PRINTED NAME): GABRIEL GARCIA	(PRINTED NAME):	(PRINTED NAME): Vicki Henslay
SHIPPING ID. NO.: UPS-1Z 312 4X W01 4317 16867 3°	CHAIN OF CUSTODY SEALS	RECEIVED BY:	RECEIVED BY:	(COMPANY): Pace Analysis
VIA: LAB Courier	GOOD CONDITION/CHILLED	(TIME / DATE): 0900 8/01/01	(TIME / DATE):	(TIME / DATE): 10:00 am 8-2-01
	CONFORMS TO RECORD	SPECIAL INSTRUCTIONS / COMMENTS: Please see attached analyte list for details		

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CHAIN OF CUSTODY RECORD

PAGE 2 OF 2

PROJECT NO.: 800 GG
PROJECT NAME: Ground Water Sampling at Helstf Chrome site
SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	Nitrogen (Nh3+nh4)	Tot. Phosphorus	TKN	Chromium 6	Diss Tot's	Dissmetals				REMARKS
7-31-01	1054	0143-HMW11-07 01	Water	176150	25	✓	✓	✓	✓	✓	✓				
~~7-31-01~~	~~1054~~	~~0143-HMW11-07 01-TB~~	~~Water~~												
						H_2SO_4	H_2SO_4	H_2SO_4	4°C	4°C	HNO_3				

PROJECT INFORMATION		1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER: Karen Costa	SAMPLES RECEIVED	(PRINTED NAME)	(PRINTED NAME)	(PRINTED NAME) Vick Hensley
SHIPPING ID. NO.: UPS-1Z3124XW01 4317 4867 30	TOTAL NO. OF CONTAINERS	RECEIVED BY:	RECEIVED BY:	(COMPANY) Pace Analysis
VIA: LAB Courier	CHAIN OF CUSTODY SEALS	(TIME / DATE) 0900 8/01/01	(TIME / DATE)	(TIME / DATE) 10:00 8-2-01
	GOOD CONDITION/CHILLED	SPECIAL INSTRUCTIONS / COMMENTS: Please See attached analyte List for details		
	CONFORMS TO RECORD			

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CHAIN OF CUSTODY RECORD

PROJECT NO.: 800 GG
PROJECT NAME: Groundwater Sampling at Helstf Chrome Site
SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	Nitrogen ($CaNO_3$ tetrahy)	Tot. Phosphorus	TKN	Chromium	Diss Ions	Diss Metal					REMARKS
7-31-01	1054	0143-HMW11-01-ms/msD	water	176150	2/5	—	—	—	—	—	—					
		0143-HMW11-01-ms/msD-TB	water													
						H_2SO_4	H_2SO_4	H_2SO_4	4°C	4°C	HNO_3					

PROJECT INFORMATION	SAMPLES RECEIVED	1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER: Karen Costa	TOTAL NO. OF CONTAINERS	(PRINTED NAME) Karen Costa	(PRINTED NAME)	(PRINTED NAME) Vicki Hensley
SHIPPING ID. NO.: 12 312 4XW 01 4317-68267 30	CHAIN OF CUSTODY SEALS	RECEIVED BY: Dolores Sanchez	RECEIVED BY:	(COMPANY) Pace Analysis
	GOOD CONDITION/CHILLED	(TIME / DATE) 0900 8/01/01	(TIME / DATE)	(TIME / DATE) 10:00am 8-2-01
VIA: Lab Courier	CONFORMS TO RECORD	SPECIAL INSTRUCTIONS / COMMENTS: Please see attached analyte list for details		

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PROJECT NO.: 800 GG

PROJECT NAME: Ground water Sampling at Helste Chrome site

SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	VOC'S	TPH (mod)	TPH Dro/Gro	TOC	SVOC'S	Explosives	Pesticides	Herbicides	Water Quality	Total Metal	Ammonia	Perchlorate	REMARKS
7-31-01	1054	0143-HMW11-07-01-ms/msD	water	176150	25	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
7-31-01	1054	0143-HMW11-02-01-ms/msD-TB	water	176151	2	✓												
						HCL	HCL	H_2SO_4	4°C	4°C	4°C	4°C	4°C	HNO_3	4°C			

PROJECT INFORMATION	SAMPLES RECEIVED	1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER: Karen Costa	TOTAL NO. OF CONTAINERS	(PRINTED NAME) GABRIEL GARCIA	(PRINTED NAME)	(PRINTED NAME) Vicki Hensley
SHIPPING ID. NO.: 1Z 312 4XW 01 4317 6847 30	CHAIN OF CUSTODY SEALS	RECEIVED BY:	RECEIVED BY:	(COMPANY) Accutest Analysis
	GOOD CONDITION/CHILLED	(TIME / DATE) 0900 8/01/01	(TIME / DATE)	(TIME / DATE) 10:00 8-2-01
VIA: LAB Courier	CONFORMS TO RECORD	SPECIAL INSTRUCTIONS / COMMENTS: Please see attached analyte list for details		

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PROJECT NO.: 800 GG
PROJECT NAME: Ground water Sampling at Helstf Chrome Site
SAMPLER'S SIGNATURE: [signature]

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	VOC's	TPH (mod) Diesel	TOC	SVOC's	Explosives	Pesticides	Herbicides	Water Quality	Total metal Ammonia Perchlorate	REMARKS
8/01/01	117	0143-HMW38-0801	Water	176212	25	X	X	X	X	X	X	X	X	X X	
8/01/01	117	0143-HMW38-0801-TB	Water	176213	2	X									
						HCL	HCL	H_2SO_4	4°C	4°C	4°C	4°C	4°C	HNO_3 4°C	

PROJECT INFORMATION	SAMPLES RECEIVED	1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER: Karen Costa	TOTAL NO. OF CONTAINERS	(PRINTED NAME) Aaron Getchell	(PRINTED NAME) R. Keck	(PRINTED NAME) Vicki Hinsley
SHIPPING ID. NO.: 12312 4XW01 4320 3345 30	CHAIN OF CUSTODY SEALS	RECEIVED BY: [signature]	RECEIVED BY:	(COMPANY) Pace Analysis
VIA: LAB Courier	GOOD CONDITION/CHILLED	(TIME / DATE) 8/2/01 8:25	(TIME / DATE)	(TIME / DATE) 10:00 AM 8-3-01
	CONFORMS TO RECORD	SPECIAL INSTRUCTIONS / COMMENTS: Please See attached analyte list for details		

PLEASE USE BALL POINT PEN

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CHAIN OF CUSTODY RECORD

PROJECT NO.: 800 GG

PROJECT NAME: Ground water Sampling at Helstf Chrome site

SAMPLER'S SIGNATURE: [signature]

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	Nitrogen (Nitrate/Nit.)	Tot. Phosphorus	TKN	Chromium	Diss Ions	Diss metals					REMARKS
8/9/01	117	0143-HMW 38 01	Water	176212	25											
		~~0143-HMW 38 01-TB~~	~~Water~~													
						H_2SO_4	H_2SO_4	H_2SO_4	4°C	4°C	HNO_3					

PROJECT INFORMATION			1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER: Karen Costa	SAMPLES RECEIVED		(PRINTED NAME) Aaron Gehlhell	(PRINTED NAME) [illegible]	(PRINTED NAME) Vicki Hinsley
SHIPPING ID. NO.: UPS 1Z312 4XW01 4320 3345 30	TOTAL NO. OF CONTAINERS		RECEIVED BY: [illegible]	RECEIVED BY:	(COMPANY) Peace Analysis
VIA: LAB Courier	CHAIN OF CUSTODY SEALS		(TIME / DATE) 8/2/01 8:25	(TIME / DATE)	(TIME / DATE) 10:00am 8-3-01
	GOOD CONDITION/CHILLED		SPECIAL INSTRUCTIONS / COMMENTS: Please see attached Analyte List for details		
	CONFORMS TO RECORD				

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CHAIN OF CUSTODY RECORD

PAGE 1 OF 2

PROJECT NO.: 800 GG

PROJECT NAME: Ground water Sampling at Helstc Chrome site

SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	VOC's	TPH (mod. DRO/GRO)	TOC	SVOC's	Explosives	Pesticides	Herbicides	Water Quality	Total metal	Ammonia Perchlorate	REMARKS
8/1/01	1328	0143-HMW41-0801	water	176214	25	✓										
8/1/01	1328	0143-HMW41-0801-TB	water	172215	2	✓										
						HCL	HCL	H_2SO_4	4°C	4°C	4°C	4°C	4°C	HNO_3	4°C	

PROJECT INFORMATION			
PROJECT MANAGER: Karen Costa	SAMPLES RECEIVED	1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)
SHIPPING D. NO.: 17312 IXW01 4320 3345 30	TOTAL NO. OF CONTAINERS	(PRINTED NAME)	(PRINTED NAME)
VIA: LAB Courier	CHAIN OF CUSTODY SEALS	RECEIVED BY:	RECEIVED BY:
	GOOD CONDITION/CHILLED	(TIME / DATE) 8/2/01 8:25	(TIME / DATE)
	CONFORMS TO RECORD	SPECIAL INSTRUCTIONS / COMMENTS: Please see attached Analyte List for details	

3. RECEIVED BY LABORATORY: (SIGNATURE) Vicki Hensley
(PRINTED NAME) Vicki Hensley
(COMPANY) Teglet Analysis
(TIME / DATE) 10:00 8-3-01

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CHAIN OF CUSTODY RECORD

PAGE 2 OF 2

PROJECT NO.: 800 GG
PROJECT NAME: Ground Water Sampling at Helste Chrome Site
SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	Nitrogen (NH3 as N)	Total Phosphorus	TKN	Chromium	TSS Tan's	TSS Metals					REMARKS
8/1/01	1328	0143-HMW 41-08 01	Water	176214	23											
		~~0143 HMW 41-01-TB~~	Water													
						H_2SO_4	H_2SO_4	H_2SO_4	4°C	4°C	HNO_3					

PROJECT INFORMATION		
PROJECT MANAGER: Karen Costa	SAMPLES RECEIVED	
SHIPPING ID. NO.: 12312 4XW01 4320 3345 30	TOTAL NO. OF CONTAINERS	
	CHAIN OF CUSTODY SEALS	
	GOOD CONDITION/CHILLED	
VIA: LAB Courier	CONFORMS TO RECORD	

1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
(PRINTED NAME)	(PRINTED NAME)	(PRINTED NAME): Vicki Hensley
RECEIVED BY:	RECEIVED BY:	(COMPANY): Teace Analysis
(TIME / DATE): 8/2/01 8:25	(TIME / DATE)	(TIME / DATE): 10:00am 8-3-01

SPECIAL INSTRUCTIONS / COMMENTS:
Please see attached Analyte List for details

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CHAIN OF CUSTODY RECORD

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PROJECT NO.: 800GG
PROJECT NAME: Ground ~~water~~ Sampling at Helstf Chrome Site
SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	VOC'S	TPH (mod) Diesel	TDC	SVOC'S	Explosives	Pesticides	Herbicides	Water Quality	Total metal Ammonia Perchlorate	REMARKS
8-1-01	1327	0143-HMW 37-0801	Water	176216	25	✓	✓	✓	✓	✓	✓	✓	✓	✓	
8-1-01	1327	0143-HMW 37-0801-TB	Water	176217	2	✓									
						HCL	HCL	H_2SO_4	4°C	4°C	4°C	4°C	4°C	HNO_3 4°C	

PROJECT INFORMATION		
PROJECT MANAGER: Karen Costa	SAMPLES RECEIVED	
SHIPPING ID. NO.: 1Z312 4XW01 4320 3345 30	TOTAL NO. OF CONTAINERS	
VIA: LAB Courier	CHAIN OF CUSTODY SEALS	
	GOOD CONDITION/CHILLED	
	CONFORMS TO RECORD	

1. RELINQUISHED BY: (SIGNATURE)
(PRINTED NAME): GABRIEL GARCIA
RECEIVED BY:
(TIME / DATE): 8/2/01 8:25

2. RELINQUISHED BY: (SIGNATURE)
(PRINTED NAME):
RECEIVED BY:
(TIME / DATE):

3. RECEIVED BY LABORATORY: (SIGNATURE)
(PRINTED NAME): Vicki Hensley
(COMPANY): Race Analysis
(TIME / DATE): 10:00 AM 8-3-01

SPECIAL INSTRUCTIONS / COMMENTS:
Please see attached analyte List for Details

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CHAIN OF CUSTODY RECORD

PAGE 2 OF 2

PROJECT NO.: 800 GG
PROJECT NAME: Ground ~~water~~ Sampling at HelSTF Chrome Site
SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	Nitrogen (ammonia)	Tot. Phosphorus	TKN	Chromium	Diss Ion's	Diss Metals				REMARKS
8-1-01	1327	0143-HMW37-0201	water	176216	25	—	—	—	—	—	—				
		~~0143-HMW37-0101-TB~~	~~water~~												
						H2SO4	H2SO4	H2SO4	4°C	4°C	HNO3				

PROJECT INFORMATION		
PROJECT MANAGER: Karen Costa	SAMPLES RECEIVED	
SHIPPING ID. NO.: 12 312 4XW01 4320 3345 30	TOTAL NO. OF CONTAINERS	
VIA: LAB Courier	CHAIN OF CUSTODY SEALS	
	GOOD CONDITION/CHILLED	
	CONFORMS TO RECORD	

1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
(PRINTED NAME)	(PRINTED NAME)	(PRINTED NAME)
RECEIVED BY:	RECEIVED BY:	(COMPANY)
(TIME / DATE) 8/2/01 8:25	(TIME / DATE)	(TIME / DATE)

SPECIAL INSTRUCTIONS / COMMENTS:
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CHAIN OF CUSTODY RECORD

PAGE 1 OF 2

PROJECT NO.: 800 GG
PROJECT NAME: Ground water Sampling at Helstf Chrome site
SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	VOC'S	TPH (mod) Diotero	TOC	SVOC'S	Explosives	Pesticides	Herbicides	Water Quality	Total metal Ammonia Perchlorte	REMARKS
8-2-01	1211	0143-HMW40-0801	Water	176347	25	✓	✓	✓	✓	✓	✓	✓	✓	✓	
8-2-01	1211	0143-HMW40-0801-TB ~~1740~~	Water	176348	2	✓									
						HCL	HCL	H_2SO_4	4°C	4°C	4°C	4°C	4°C	HNO_3	4°C

PROJECT INFORMATION	SAMPLES RECEIVED	1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	J. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER: Karen Costa	TOTAL NO. OF CONTAINERS	(PRINTED NAME) ABAEL GARCIA	(PRINTED NAME)	(PRINTED NAME) Jennifer Schmidt
SHIPPING ID. NO.	CHAIN OF CUSTODY SEALS	RECEIVED BY:	RECEIVED BY:	(COMPANY) Trace Analysis
	GOOD CONDITION/CHILLED	(TIME / DATE) 8/2/01 17:00	(TIME / DATE)	(TIME / DATE) 8/4/01 1100
VIA: LAB Courier	CONFORMS TO RECORD	SPECIAL INSTRUCTIONS / COMMENTS: Please see attached analyte list for details		4°C UPS 12312 4x w 40 4375 3386

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CHAIN OF CUSTODY RECORD

PROJECT NO.: 800 GG
PROJECT NAME: Ground water Sampling at Helstr Chrome site
SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	Nitrogen (Nitrate/Nitrite)	Total Phosphorus	TKN	Chromium	Diss Tot's	Diss Metal					REMARKS
8-2-01	1211	0143-HMW40-0801	Water	176348	25	✓	—	—	—	—	—					
		~~0143-HMW40-01 TB~~	~~Water~~													
						H_2SO_4	H_2SO_4	H_2SO_4	4°C	4°C	HNO_3					

PROJECT INFORMATION		
PROJECT MANAGER: Karen Costa	SAMPLES RECEIVED	
	TOTAL NO. OF CONTAINERS	
SHIPPING ID. NO.	CHAIN OF CUSTODY SEALS	
	GOOD CONDITION/CHILLED	
VIA: LAB Courier	CONFORMS TO RECORD	

1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
(PRINTED NAME) GABRIEL GARCIA	(PRINTED NAME) L. Peck	(PRINTED NAME) Jennifer Schmidt
RECEIVED BY:	RECEIVED BY:	(COMPANY) Trace Analysis
(TIME / DATE) 8/2/01 17:00	(TIME / DATE)	(TIME / DATE) 8/4/01 1100

SPECIAL INSTRUCTIONS / COMMENTS: 4°C UPS 123124XW44 4375 3386
Please see attached Analyte List for details

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CHAIN OF CUSTODY RECORD

PROJECT NO.: 800GG
PROJECT NAME: Ground water Sampling at HELSTF Chrome site
SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	VOC's	TPH (mod) Ext Gro	TOC	SVOC's	Explosives	Pesticides	Herbicides	Water Quality	Total metal Ammonia Perchlorate	REMARKS
8-2-01	1117	0143-HMW36-0801	water	176349	25	—	1	—	—	—	—	—	—	—	
8-2-01	1117	0143-HMW36-0801-TB	Water	176350	2	—									
						HCL	HCL	H_2SO_4	4°C	4°C	4°C	4°C	4°C	HNO_3 4°C	

PROJECT INFORMATION	SAMPLES RECEIVED	1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER: Karen Costa	TOTAL NO. OF CONTAINERS	(PRINTED NAME) GABRIEL GARCIA	(PRINTED NAME) L. Peck	(PRINTED NAME) Jennifer Schmidt
SHIPPING ID. NO.	CHAIN OF CUSTODY SEALS	RECEIVED BY:	RECEIVED BY:	(COMPANY) Trace Analysis
	GOOD CONDITION/CHILLED	(TIME / DATE) 8/2/01 17:00	(TIME / DATE)	(TIME / DATE) 8/4/01 1100
VIA: LAB Courier	CONFORMS TO RECORD	SPECIAL INSTRUCTIONS / COMMENTS: Please See attached analyte List for details		4°C UPS 12312 4X40 4375 33X6

*use extra from Extra bottles

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*NOTE! DUE TO THE WELL GOING DRY - ONLY 3-500ML. + 1 1LT POLY ARE NOT FULL

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CHAIN OF CUSTODY RECORD

PAGE 2 OF 2

PROJECT NO.: 800 GG
PROJECT NAME: Ground water Sampling at Helstf Chrome Site
SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID	MATRIX	LAB NO.	NO. OF CONTAINERS	Nitrogen (only total)	Tot. Phosphorus	TKN	Chromium	Diss Tot's	Diss metals				REMARKS
8-2-01	1117	0143-HMW36- 01	water	176349	25	—	—	—	—	—	—				
		~~0143-HMW36- 01-FB~~	~~water~~	/											
						H_2SO_4	H_2SO_4	H_2SO_4	4°C	4°C	HNO_3				

PROJECT INFORMATION	SAMPLES RECEIVED	1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER: Karen Costa	TOTAL NO. OF CONTAINERS	(PRINTED NAME) GABRIEL GARCIA	(PRINTED NAME)	(PRINTED NAME) Jennifer Schmidt
SHIPPING ID. NO.	CHAIN OF CUSTODY SEALS	RECEIVED BY:	RECEIVED BY:	(COMPANY) Trace Analysis
	GOOD CONDITION/CHILLED	(TIME / DATE) 8/2/01 17:00	(TIME / DATE)	(TIME / DATE) 8/4/01 1150
VIA: LAB Courier	CONFORMS TO RECORD	SPECIAL INSTRUCTIONS / COMMENTS: Please see attached analyte List for details		4°C UPS 1Z3312 4X0 4 4 > 75-33

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NOTE! DUE TO THE WELL GOING DRY - ONLY 3-500 ML POLY & 1 LT POLY ARE NOT FULL
use extra from Extra bottles

Analytes: HELSTF Chrome WAO 400 A5/700A21/800GG

01/01

Parameter	Reference Method	Method Type	Laboratory Detection Limits	Hold Time* * before/after extract	Container/ Preservative
Water Quality					
CO_3^{-2} & HCO_3^- Alkalinity pH Conductance, TDS	EPA 310.1 EPA 150.1 EPA 120.1 EPA 160.1	Titrimetric Electrometric Conductivity Meter Gravimetric	1.2 mg/L N/A N/A 50.0 mg/L	14 days 48 hours 28 days 7 days	1-L plastic, 4°C plastic, no preservative
Total Cyanide(**January sampling event only**)	SW846 – 9010B	Distillation	0.01 mg/L	14 days	1-L plastic, NaOH,pH>12
Dissolved Ions					
Chloride Fluoride Bromide Sulfate Nitrate/Nitrite	EPA 300.0	Ion Chromotography	1.0 mg/L 0.20 mg/L 2.0 mg/L 2.0 mg/L 0.10 mg/L	28 days 28 days 28 days 28 days 48 hours	1-L plastic, Field Filter cool to 4°C
Ammonium Perchlorate	EPA 314.0	Ion Chromatography	5 ug/L	28 days	500mL plastic, nonpreserved
Nutrients					
Nitrogen NH_3 & NH_4 Total Phosphorus TKN	EPA 350.1 EPA 365.1 EPA 351.2	Segmented Flow Analyzer Segmented Flow Analyzer Colorimetric	0.05 mg/L 0.01 mg/L 0.1 mg/L	28 days 28 days 28 days	1-L plastic, H_2SO_4
Total Metals					
Aluminum, Manganese, Arsenic****, Molybdenum, Barium, Nickel, Beryllium, Selenium***, Boron, Silicon, Cadmium, Silver, Calcium, Strontium, Chromium, Tin, Cobalt, Vanadium, Copper, Zinc, Iron, Lead **, Magnesium	SW846 7060A**** SW846 7740*** SW846 7421**	ICP/AES unless noted AA-GF**** AA-GF**	Aluminum 5.0 mg/L, Manganese 0.2 mg/L Arsenic**** 0.1 mg/L, Molybdenm 1.0 mg/L Barium 0.1 mg/L, Nickel 0.2 mg/L Beryllium 0.001 mg/L, Selenium*** 0.05 mg/L Boron 0.75 mg/L, Silicon 5 mg/L Cadmium 0.01 mg/L, Silver 0.05 mg/L Calcium 1.0 mg/L, Strontium 1.0 mg/L Chromium 0.05 mg/L, Tin 1.0 mg/L Cobalt 0.05 mg/L, Vanadium 0.01 mg/L Copper 1.0 mg/L, Zinc 10.0 mg/L Iron 1.0 mg/L Lead** 0.05 mg/L Magnesium 1.0 mg/L	180 days	500mL plastic, HNO_3, pH <2
Mercury	SW846-7470	Cold Vapor-AA	0.002 mg/L	28 days	
Chromium $^{6+}$*	SW846 7196A*	Spectrophotometer*	2 µg/L*	24 hours*	500 ml, 4°C*
Dissolved Metals					
Aluminum, Manganese, Arsenic****, Molybdenum, Barium, Nickel, Beryllium, Selenium, Boron, Silicon, Cadmium, Silver, Calcium, Strontium, Chromium, Tin, Cobalt, Vanadium, Copper, Zinc, Iron, Lead **, Lithium, Magnesium	SW846 7060A**** SW846 7740*** SW846 7421**	ICP/AES unless noted AA-GF****	Aluminum 5.0 mg/L, Manganese 0.2 mg/L Arsenic**** 0.1 mg/L, Molybdenm 1.0 mg/L Barium 0.1 mg/L, Nickel 0.2 mg/L Beryllium 0.001 mg/L, Selenium 0.05 mg/L Boron 0.75 mg/L, Silicon 5 mg/L Cadmium 0.01 mg/L, Silver 0.05 mg/L Calcium 1.0 mg/L, Strontium 1.0 mg/L Chromium 0.05 mg/L, Tin 1.0 mg/L Cobalt 0.05 mg/L, Vanadium 0.01 mg/L Copper 1.0 mg/L, Zinc 10.0 mg/L Iron 1.0 mg/L Lead** 0.05 mg/L Lithium 0.50 mg/L Magnesium 1.0 mg/L	180 days	500 ml plastic, Field Filtered Then preserve With HNO_3 t pH <2

Organics					
Volatile Compounds	SW846 8260	GC/MS	Methylene Chloride 2.0 µg/L other 8260 compounds 1.0 µg/L	14 days	3-40 ml, HCl
Petroleum Hydrocarbons	SW846 8015(Mod) DRO & GRO	GC	0.1 mg/L	14 days	3-40 ml each HCl pH<2 (6 Total)
Semi-Volatiles (SVOCs)	SW846 8270C	GC-MS	Benzo(a)anthracene 1.5 µg/L Benzo(b)&(k) flouranthene 1.5 µg/L Buytlbenzylphthalate 1.5 µg/L Bis(2-chloroethyl)ether 1.5 µg/L 4-Chloro-3-methylphenol 1.5 µg/L Chrysene 1.5 µg/L Hexachloroethane 1.5 µg/L Benzo(a)pyrene 2.0 µg/L 2-Chlorophenol 2.0 µg/L Bis(2-ethylhexyl)phthalate 2.0 µg/L 2-Chlorophenol 2.0 µg/L 2,4-Dichlorophenol 2.0 µg/L 2,4-Dimethylphenol 2.0 µg/L Dimethylphthalate 2.0 µg/L 2,4-Dinitrotoluene 2.0 µg/L 2,6-Dinitrotoluene 2.0 µg/L Hexachlorobenzene 2.0 µg/L Hexachlorobutediene 2.0 µg/L 2-methylphenol 2.0 µg/L 4-methylphenol 2.0 µg/L 2-nitrophenol 2.0 µg/L Phenol 2.0 µg/L Benzyl alcohol 2.0 µg/L Di-n-octylphthalate 2.4 µg/L Benzo(g,h,i)perylene 2.5 µg/L Dibenzo(a,h)anthracene 2.5 µg/L Ideno(1,2,3-cd)pyrene 2.5 µg/L 4-Chloroanaline 4.0 µg/L 2,4,5-trichlorophenol 4.0 µg/L 2,4,6- trichlorophenol 4.5 µg/L 3,3'-Dichlorobenzidine 5.0 µg/L 2-Nitroanaline 5.0 µg/L 3-Nitroanaline 5.0 µg/L 2-Nitroanaline 5.0 µg/L Hexachlorocyclopentadiene 10.0 µg/L 4-Nitrophenol 10.0 µg/L Pentachlorophenol 10.0 µg/L 2-methyl-4,6-dinitrophenol 20.0 µg/L Benzidine 20.0 µg/L 2,4-dinitrophenol 30.0 µg/L Benzoic acid 30.0 µg/L Other 8270 compounds 1.0 µg/L	7 days/40 days	1-1ltr amber glass, no preservative
Explosives	SW846-8330	HPLC	0.001-0.005 mg/L	7 days/40 days	2-1L amber glass no preservativ

Pesticides	SW846 8081	Gas Chromatography	Aldrin Alpha-BHC Beta-BHC Delta-BHC Gamma-BHC(Lindane) Chlordane(Total) 4,4'-DDD 4,4'-DDE 4,4'-DDT Dieldrin Endosulfan I Endosulfan II Endosulfan Sulfate Endrin Endrin Aldehyde Endrin Ketone Heptachlor Heptachlor Epoxide Methoxychlor Toxaphene	0.02 ug/L 0.02 ug/L 0.02 ug/L 0.02 ug/L 0.02 ug/L 0.10 ug/L 0.02 ug/L 0.03 ug/L 0.03 ug/L 0.02 ug/L 0.03 ug/L 0.03 ug/L 0.03 ug/l 0.05 ug/L 0.05 ug/L 0.04 ug/L 0.03 ug/L 0.03 ug/L 0.03 ug/L 0.10 ug/L	7 days/40 days	2-1L amber glass no preservative
Herbicides	SW846 8151	Gas Chromatography	Dalapon 2,4-DB Dicamba 2,4-D Dichoroprop Dinoseb MCPA MCPP Silvex 2,4,5-T	1.0 ug/l 0.2 ug/L 0.2 ug/L 0.2 ug/L 0.2 ug/L 0.2 ug/L 10 ug/L 10 ug/L 0.2 ug/L 0.2 ug/L	7 days/ 40 days	2-1L amber glass No preservative
TOC	SW846-9060	TOC analyzer	1.0 mg/L		28 days	2-40 ml, H_2SO_4, pH<2 (QA lab gets 1-250mL amber)