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High Energy Laser Systems Test Facility Technical Support Area Fuel Spill

White Sands Missile Range Dona Ana County, New Mexico

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A fuel release of approximately 1,500 gal of unleaded fuel from a dispenser facility at the HELSTF TSA POL Station occurred in March of 2000 and was investigated by MEVATEC under the direction of the White Sands Environment and Safety Directorate – Environmental Compliance Division (WS-ES-EC) and the New Mexico Environment Department (NMED). Following the preliminary investigation a soil vapor extraction (SVE) system was initiated as a pilot study/interim remedial action during July of 2000.

This report discusses the information obtained during a follow up investigation performed in August 2003. The additional groundwater and soil sampling analytical results obtained were used to determine the effectiveness of the interim remedial action on the existing subsurface conditions. The investigation determined that the SVE interim remedial action was effective in removing the contamination from the more porous upper sediments from 0 to 25 ft. The human health and ecological exposure pathways relevant to the remaining contamination are all incomplete, leading to the conclusion of "no current or future human health or ecological risk."

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EXECUTIVE SUMMARY

A fuel release of approximately 1,500 gal of unleaded fuel from a dispenser facility at the High Energy Laser Systems Test Facility (HELSTF) Technical Support Area (TSA) Petroleum/Oil/Lubricants (POL) Station was investigated by MEVATEC under the direction of the White Sands Environment and Safety Directorate – Environmental Compliance Division (WS-ES-EC) and the New Mexico Environment Department (NMED) Groundwater Quality Bureau.

A March 2000 preliminary investigation performed by MEVATEC determined that the release of fuel from supply piping at the HELSTF TSA Facility was held in check by surface tension and had only impacted the surface soil to a depth of 30 ft below the dispenser island. The regional groundwater resource was also determined not to be impacted by the release; however, a non potable, perched water bearing zone located between 20 to 30 ft below the dispenser did contain constituents of benzene and toluene above the NMED Water Quality Control Commission Standards (20 New Mexico Administrative Code 6.2, Section 3103).

A soil vapor extraction (SVE) system was initiated by White Sands as a pilot study/interim remedial action during July of 2000. Results of the pilot study indicated that SVE would be an effective method of remediation at the facility. The pilot SVE system was operated for a period of 4 months utilizing one of four vapor extraction wells installed into the shallow impacted soils and perched water table. The SVE system removed an estimated 1,800 gal of product, which is in excess of the reported release, providing evidence of prior, long-term leakage as well.

A follow up investigation work plan was developed in August 2003 and consisted of drilling nine soil borings in close proximity to the boring locations performed in March 2000 by MEVATEC, installation of two additional down gradient monitoring wells to evaluate the regional groundwater resource, and the collection of background soil samples from five soil borings located away from the spill area at locations surrounding the facility. This investigation provides additional groundwater and soil sampling to determine the effectiveness of the interim remedial action on the subsurface conditions.

Results of the nine soil borings indicates that the subsurface consists mostly of fine grain sediments in the area of impact beneath the distribution island. A perched water bearing zone was encountered at two locations in all nine soil borings ranging from 17 to 25 ft below ground surface (bgs) and at 30 to 35 ft. Analytical results from the soil samples collected within the impacted depths, in comparison to March 2000, indicated that the SVE system area of influence was not as effective with the fine grain soils but did remove contaminants from the more porous upper sediments from 0 to 25 ft bgs.

Water samples were not collected from the perched water bearing zones during this investigation, but samples from the 2000 investigation indicate the perched water at 30 to 35 ft contained total dissolved solids (TDS) values of 27,000 parts per million (ppm). Two groundwater monitoring wells were proposed in the Resource Conservation and Recovery Act Facility Investigation Work Plan; however, only one of these wells could be installed down gradient. The location HMW–51, located within the area of impact, was only completed to a total depth of 70 ft due to the potential for impacting the regional groundwater resource from fluids up above, or the potential for impacts to well construction materials during installation of the well creating a false positive analytical result. The other additional monitoring well (HMW-52) was installed into the regional aquifer during this investigation up gradient of existing well HMW-50 but down gradient of the area of impact. The soil boring for HMW-52 did not encounter any evidence of the perched water bearing zones or impacted soils from the fuel release; therefore, the potential for impacts to well construction materials and the regional groundwater resource were very low.

Five background soil borings were completed in the specified locations surrounding the HELSTF TSA Facility after completing a review of cultural sites and utility clearances were performed. Two background samples from each of the five borings were collected at 10 to 12 ft bgs and 20 to 21 ft bgs and submitted for analysis of inorganic metals only. Results of the background samples indicated that naturally occurring lead levels in the area of HELSTF TSA range from 1.66 to 7.86 ppm. Lead Levels in the area of the nine soil borings were slightly elevated above the background averages however the levels are still far below the 400 ppm level set by the EPA. Under the new standards, promulgated by the Environmental Protection Agency, lead is considered a hazard if there are greater than 400 ppm of lead in bare soil in children's play areas or 1,200 ppm average for bare soil in the rest of the yard.

In conclusion, this investigation has determined that the SVE interim remedial action was effective in removing the contamination from the upper more porous sediments from 0 to 25 ft. Impacted soils in 2004 are less in concentration but deeper and more dispersed than during the previous investigation. The impacted area was determined to be mobilizing from the 25-ft depth to the 35-ft depth in a north easterly direction from SB 18 to the boring SB 13 based on iso concentration contours of 2004 soils data for benzene. At 42 ft bgs, the impacted area appears to flatten out consistent with the lithology of the subsurface, which indicates the beginning of significant clay and silty clay sequences that begin retarding the contaminants' downward flow.

The human health and ecological exposure pathways relevant to the remaining contamination are all incomplete, leading to the conclusion of "no current or future human health or ecological risk." The single exception is occupational exposure to potential future construction workers engaged in deep (>25 ft depth) excavation, where the concentrations observed would still not lead to unacceptable human health risk.

Even though BTEX concentrations in 2004 were determined to be significantly less in concentration than in 2000, they still exceed the risk based screening levels for concentrations in soils protective of groundwater in the areas of SB 18 and SB 13 at the depth interval of 25 to 35 ft. Lithology beginning at approximately 40 ft is protective of the regional groundwater resource beneath the site, since two groundwater sampling events have not detected any volatile organic compound, semi volatile organic compound, or metals contaminants. Under current state regulations, protection of the regional aquifer is of concern even though it is classified as non-potable due to high TDS values averaging approximately 8,000 ppm.

Continued compliance monitoring of the existing monitoring wells is recommended as a precautionary measure to assure early detection of impact. Annual sampling for BTEX of all existing monitor wells completed in the regional aquifer performed for a period of 10 years should be sufficient to detect any release. After the period of 10 years, continued monitoring or other actions can be revisited.

CONTENTS

ACRONYMS viii

1. INTRODUCTION 1

1.1 Purpose and Scope 1

1.2 Site Background 1

1.2.1 Site Description 1
1.2.2 Site History 1
1.2.3 Previous Investigations 3

2. PHYSICAL CHARACTERISTICS 4

2.1 Surface Features 4

2.2 Climate 5

2.3 Demographics and Land Use 5

2.4 Geology 5

2.5 Soils 6

2.6 Hydrogeology 7

3. SITE ASSESSMENT METHODOLOGY 8

3.1 Sampling Methodology 8

3.2 General Field Investigation Procedures 8

3.2.1 National Environmental Policy Act Review 8
3.2.2 Utility Clearance 8
3.2.3 Site Safety 8
3.2.4 Drilling and Soil Sampling 10
3.2.5 Well Installation and Groundwater Sampling 10
3.2.6 Background Investigation 14
3.2.7 Investigative Derived Waste 15

4. RESULTS OF SOIL AND GROUNDWATER INVESTIGATION 16

4.1 Subsurface Geology and Hydrogeology 16

4.2 Analytical Results 16

4.2.1 Subsurface Soils 16
4.2.2 Groundwater 21
4.2.3 Background Soils 21

5. NATURE AND EXTENT OF CONTAMINATION 22

5.1 Source Characteristics 22

5.2 Soils and Vadose Zone 22

5.3 Groundwater 22

6. CONTAMINANT FATE AND TRANSPORT 27

6.1 Routes of Migration 27

6.2 Contaminant Persistence 27

7. EVALUATION OF HUMAN AND ECOLOGICAL EXPOSURE POTENTIAL 28

7.1 Human Health 28

7.1.1 Baseline Risk Assessment 28
7.1.2 Contaminants of Concern 28
7.1.3 Site Conceptual Exposure Scenario 28
7.1.4 Estimation of Representative Concentrations 29
7.1.5 Comparison of Representative Concentrations to Tier 1 RBSLs/SSLs 33

7.2 Ecological 34

8. SUMMARY AND CONCLUSIONS 35

9. RECOMENDATIONS 36

10. REFERENCES 37

FIGURES

1-1. Regional Location Map 2

1-2. Previous Investigation Sample Locations. 3

3-1. Monitoring Well Vapor Extraction Points and Soil Boring Locations. 11

3-2. Aerial Photograph of Background Soil Boring Locations. 12

4-1. Lithologic Cross Section A-A' (East – Eest). 17

4-2. Lithologic Cross Section B-B' (North – South). 18

5-1. Isoconcentration Map of 2000 Benzene 23

5-2. Isoconcentration Map of 2004 Benzene 24

5-3. 2000-2004 Benzene Concentration Cross Section. 25

5-4. 2000-2004 Benzene Concentration Cross Section. 26

TABLES

3-1. Sample Analytical Program HELSTF TSA POL Fuel Spill Investigation WSMR, New Mexico. 9

3-2. Monitoring Well and Vapor Well Construction Detail Summary HELSTF TSA POL Fuel Spill Investigation....13

4-1. Analytical Results Contaminants of Concern in Soils HELSTF TSA POL Fuel Spill Investigation White Sands Missile Range, New Mexico....19

4-2. Water Quality Parameters in Groundwater HELSTF TSA POL Fuel Spill Investigation White Sands Missile Range, New Mexico. 21

7-1. Sample Intervals with COC Contamination (mg/kg)....29

7-2. Interval Concentrations of Benzene (mg/kg). 30

7-3. Interval Concentrations of Toluene (mg/kg)....30

7-4. Interval Concentrations of Ethylbenzene (mg/kg). 31

7-5. Interval Concentrations of Xylenes (mg/kg)....31

7-6. Interval Concentrations of MTBE (mg/kg)....32

7-7. Interval Concentrations of Naphthalenes (mg/kg). 32

7-8. Representative Concentrations vs. RBSLs/SSLs. 33

7-9. Representative Concentrations vs. RBSLs/SSLs. 33

APPENDICES

Appendix A—Site Photos

Appendix B—Previous Investigation Results Summary

Appendix C—Record Of Environmental Consideration

Appendix D—Utility Clearance Information

Appendix E—Daily Activity Log

Appendix F—Boring Logs

Appendix G—Well Installation Details

Appendix H—Investigative Derived Waste Manifests

Appendix I—Soils Analytical Data

Appendix J—Groundwater Analytical Data

Appendix K—Tier 1 Report Forms

ACRONYMS

AST	aboveground storage tank
ASTM	American Society for Testing and Materials
bgs	below ground surface
COC	contaminant of concern
DOPA	Description of the Proposed Action
HASP	Health and Safety Plan
HELSTF	High Energy Laser Systems Test Facility
NEPA	National Environmental Policy Act
NMED	New Mexico Environment Department
POL	Petroleum/Oil/Lubricants
RBDMP	Risk Based Decision Making Process
RBSL	Risk Based Screening Level
RCRA	Resource Conservation and Recovery Act
REC	Record of Environmental Condition
RFI	RCRA Facility Investigation
SSL	Soil Screening Level
SVE	soil vapor extraction
SVOC	semi volatile organic compound
TDS	total dissolved solids
TPH	total petroleum hydrocarbon
TSA	Technical Support Area
VOC	volatile organic compound
WSMR	White Sands Missile Range

RCRA Facility Investigation

High Energy Laser Systems Test Facility Technical Support Area Fuel Spill

White Sands Missile Range Dona Ana County, New Mexico

1. INTRODUCTION

1.1 Purpose and Scope

This Resource Conservation and Recovery Act Facility Investigation (RFI) was performed at the High Energy Laser Systems Test Facility (HELSTF) Technical Support Area (TSA) Petroleum/Oil/Lubricant (POL) Facility to compare results from a previous investigation performed by MEVATEC in the year 2000 and to determine the nature and extent of releases of hazardous waste or constituents from this spill site. White Sands Missile Range (WSMR) is executing this RFI as a Voluntary Corrective Measure under the provisions of the Resource Conservation and Recovery Act (RCRA), as administered by the New Mexico Environment Department (NMED), Hazardous Waste Bureau. The scope of the work was performed as specified in the *Work Plan for the RCRA Facility Investigation at the High Energy Laser Systems Test Facility (HELSTF) Technical Support Area (TSA)* (BAE SYSTEMS, 2003).

1.2 Site Background

1.2.1 Site Description

The HELSTF TSA POL Station is located approximately 20 mi (32 km) east-northeast of the White Sands Main Post Headquarters on U.S. Highway 70 in Otero County, New Mexico (Figure 1-1). The main area of operations for HELSTF is a secure area, along with the TSA POL area, located approximately 300 yd (275 m) beyond the 24-hour guard check point adjacent to U.S. Highway 70. Site photographs are included in Appendix A.

The POL station consists of a concrete pad and pump island with one fuel dispenser supplied by an underground fuel line connected to a 3,000-gal aboveground storage tank (AST). The AST, which contains unleaded gasoline, is located approximately 35 ft west of the dispenser island mounted within a concrete secondary containment structure.

1.2.2 Site History

The HELSTF TSA POL and the main HELSTF area have been in operation since the early 1980s. The POL area supports the main HELSTF area with facilities engineering support, which also includes the fueling island, medical facilities, fire station, and staging areas.

No visual evidence of leaks was detected upon the initial detection of missing fuel from the AST. Initial reports of fuel loss were determined to be 750 gal; however, upon review of the fuel deliveries and consumption records, the final loss estimate was determined to be 1,485 gal. The system was evaluated for leaks and it was determined that the release had occurred along the underground supply line running from the AST to the dispenser island.

Figure 1-1. Regional Location Map.

1.2.3 Previous Investigations

Immediately following the detection of a fuel release at the HELSTF TSA POL, a phased approach to investigating the fuel release was performed by MEVATEC in May and June of 2000. The investigation was comprised of two soil sampling efforts to define lateral and vertical migration of the fuel spill. Six shallow hand auger borings were performed in the vicinity of the pump island (Figure 1-2), which from analytical data from soil samples, indicated that the fuel had migrated below the range of hand augering. A second soil sampling was performed using a hollow stem auger drilling to collect soil samples at regular intervals to a depth of approximately 40 ft below ground surface (bgs).

Hollow stem auger drilling was used to determine the depth to groundwater and background quality of the regional aquifer by installing three monitoring wells. Regional groundwater resources were encountered at a depth of approximately 90 ft (27.4 m) bgs and was determined to be non potable due to the presence of concentrations of total dissolved solids (TDS) exceeding 8,000 milligrams per liter (mg/L). An additional shallow perched water bearing zone was encountered at approximately 34 ft (10.4 m) bgs and was determined to be non potable due to the TDS concentrations of 26,000 mg/L.

Based on the analytical results of the previous investigations (Appendix B), it was determined that the gasoline release was attenuated to the fine grain sediments by surface tension within a contaminated zone of approximately 30 ft vertically from the near surface source. The regional groundwater resource was not affected by the subject release. However, the gasoline constituents benzene and toluene were detected in the shallow non-potable perched water-bearing zone at concentrations above the New Mexico Water Quality Control Commission Standards (20 New Mexico Administrative Code 6.2, Section 3103). A source for the perched water could not be determined.

A soil vapor extraction (SVE) remediation system was installed in July of 2000 and operated for a period of 4 months. It is estimated that approximately 1,790 gal (6,775 L) of gasoline were removed from the subsurface by the SVE system, which is in excess of the reported release indicating evidence of prior long-term leakage. Total petroleum hydrocarbon (TPH) concentrations were reduced significantly with benzene and toluene concentrations also being reduced.

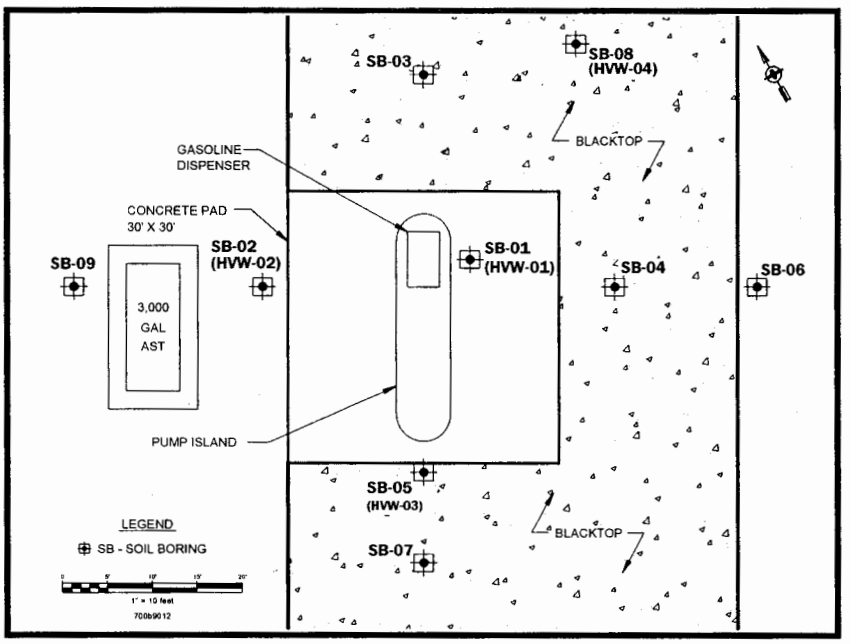


Figure 1-2. Previous Investigation Sample Locations (MEVATEC May 2000).
(Note: Hand Auger borings are not shown.)

2. PHYSICAL CHARACTERISTICS

2.1 Surface Features

The region's present day physiography is the result of extensional forces that created faults, causing the mountain ranges to rise and adjacent areas to subside creating basins. The major extensional phase associated with the Rio Grande rift is responsible for creating the present-day topography of block-faulted mountains and basins in the region. The San Andres Mountains and Tularosa Basin are an expression of this ongoing process. The San Andres Mountains are a westward-dipping, north–south-trending fault block whose principal axis follows the down-dropped Tularosa Basin (Figure 1-1). The Sacramento Mountains are the main eastern limb of this fault block. The Oscura Mountains and Chupadera Mesa are also east-dipping limbs that form the northern extent of the Tularosa Basin. The Tularosa Basin is the collapsed crest of an anticlinal structure between two fault zones, one lying along the eastern scarp of the San Andres Mountains and the other along the western scarp of the Sacramento Mountains (Figure 2-1). Fill deposits underlying the basin are from the erosion of source rocks that outcrop on the San Andres, Sacramento, Oscura, and Organ Mountains.

WSMR is cut from north to south by the San Andres, Organ, and Oscuro Mountain Ranges. The major part of the area lies within the landlocked Tularosa Basin, and a lesser part within the Jornada del Muerto Basin and several smaller closed basins. The mountain ranges make up approximately 35% of the area. Approximately 80% of the drainage flows into the Tularosa Basin, and the rest into Jornado Del Muerto Basin. The main physiographic features located within the basins are intermittent lakes, gypsum sand dunes, intermountain valley slopes, and eolian deposits. Rock types within the area vary widely and consist of gypsum, sandstone, shale, limestone, basalt, and mixed acid igneous acid igneous rocks.

The HELSTF TSA POL Facility lies within the central portion of the Tularosa Basin, and therefore its surface is relatively flat with the exception of hummocks created by wind deposition around vegetation. There are no drainages or surface water within the study area.

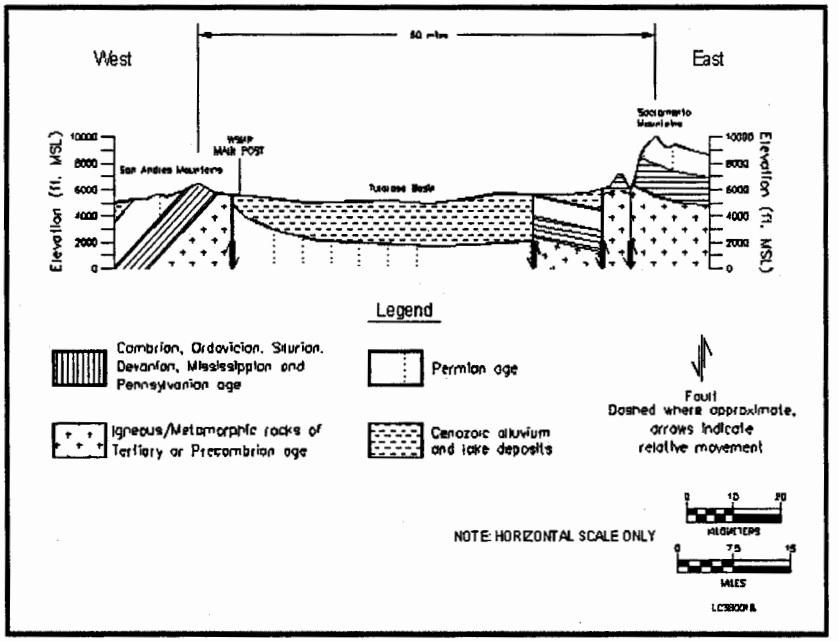


Figure 2-1. Mexican Highland Section, Basin and Ranges Province, Tularosa Basin Cross Section (Kottolowski, 1956).

2.2 Climate

The WSMR area is typical Northern Chihuahuan desert climate: plenty of sunshine, 250 frost free days, low humidity, and low precipitation. Average annual precipitation is 30 cm (12 in.), most of which occurs during early July through September in the form of thunderstorms. For about half the year, WSMR receives less than 2.5 cm (approximately 1 in./month) of precipitation. Relative humidity in the region is typically low with a range of 29 to 55% over the course of a year. Temperatures are generally mild with the mean temperature at WSMR Main Post at 17°C (62°F). Average lows in January range from -6 to 1°C (21 to 34°F.) to July, which range from 33 to 34°C (92 to 93°F.). Records of daily fluctuations average about 10°C (50°F.) Wind speed is generally highest in the spring and may average from 14.5 km/hr (9 mph) to 109 km/h (68 mph). Conditions are generally dry just before the rainy season (July-October) and the winds create considerable dust storms.

2.3 Demographics and Land Use

Demography of the TSA is mostly the workers involved with providing the support services for the main HELSTF area. The only onsite personnel who are there 24 hours a day are the fire, medical, and security personnel. No personnel reside at the HELSTF TSA Facility. The area surrounding the TSA is primarily desert owned by WSMR.

The TSA at HELSTF consists of a small compound located immediately inside the security gate. The HELSTF TSA supports the main HELSTF area with maintenance, fire, medical, and food services. Buildings that are occupied by each of these services encompass the HELSTF TSA area. Asphalt paved roads with gravel parking areas are mixed with asphalt parking for each of the buildings. Surrounding the facilities is open desert owned by WSMR.

2.4 Geology

Precambrian granitic units and metamorphic units are the oldest rocks exposed on WSMR and represent the roots of an ancient mountain or rift system that formed 1.3 to 1.4 billion years ago. The Precambrian units have been highly altered through extensive metamorphism, intrusion by batholiths, and erosion. The Precambrian record is scattered in outcrops throughout the San Andres Mountains, typically at the base of the eastern scarp.

Paleozoic marine strata, with thicknesses of at least 2,591 m (8,500 ft), are the principal rock units exposed within the San Augustin, San Andres, and Oscura Mountains and Chupadera Mesa. These units form a series of west-dipping hogbacks and cuestas along the San Augustin and San Andres Mountains and east-tilted hogbacks and cuestas along the Oscura Mountains and Chupadera Mesa.

The area's geologic record contains little evidence of the early Mesozoic sediments, and Jurassic rocks are not exposed on WSMR. Shallow marine seas present during the early Cretaceous time deposited beach and near-shore sediments, including the Sarten and Dakota Sandstones, which lie unconformably over late Permian rocks and are found exposed on the west side of the San Andres Mountains as scattered hogback ridges. The Mesa Verde Group, sediments composed primarily of regressive marine deposits including shales, mudstones, coals, and sandstones, are located in the Jornada del Muerto Basin and within the northern Tularosa Basin.

The Laramide orogeny formed broad, north–south block uplifts from paleobasins that extended northward to Wyoming beginning in Tertiary time. The fault-block mountains were separated by nonmarine intermountain basins. The San Andres Mountains form a transition between the west-northwest trending Cordilleran orogeny and the north-trending Laramide orogeny. The eastern extent of the Laramide uplift is now buried below the Tularosa Basin, and Laramide Basin sediments of the Love Ranch Formation are found in the Jornada del Muerto.

Nearly continuous fault scarps of Quaternary age, referred to as range boundary faults, occur along the eastern edge of the San Andres, Organ, and Franklin Mountains. This system of faults (San Andres fault, Organ Mountain fault, and Eastern Franklin Mountains fault) runs in a straight line for nearly 182 km (113 mi). The latest displacement of the Rio Grande rift along the San Andres and Organ Mountains occurred about 1,000 years ago with a maximum displacement of about 4.6 m (15 ft). Minor faults lying just east of the WSMR boundary faults in the southern Tularosa Basin have created an array of tilted blocks within the basin-fill deposits. Most of the faults are shallow-seated features; however, some may penetrate more deeply and be capable of generating earthquakes. The scarps range in height from 3 to 8 m (9.8 to 26 ft), although some may be as high as 28 m (91.8 ft) and have had seismic activity as recently as the late Pleistocene or early Holocene. The length of WSMR boundary faults and displacement per surface-faulting event suggests earthquakes of magnitudes of 7 to 7.5. Recurrence intervals of surface rupture range from 4,000 to 5,000 years along the Organ Mountain fault and 20,000 years along the southern and central segments of the San Andres fault.

Carrizozo lava flows in the northern portion of the Tularosa Basin originated from Little Black Peak northeast of WSMR. There were two distinct basaltic flows that erupted within 1,000 years of each other. They extend 75 km (40 mi) with an average thickness of 10 to 15 m (33 to 49 ft). The broadest section of the flow, located within WSMR, is nearly 8 km (4 mi).

Pleistocene to Holocene features at WSMR includes alluvial fans, basin-fill sediments, playas, lava flows, neotectonic faults, and dunes. Alluvial fans, varying in age and composition, grade from coarse, large gravels to fine sands and extend out from all mountain ranges within WSMR. Colluvium, fluvial, and eolian deposits on WSMR represent historical sedimentation within the last 100 years.

Eolian deposition has been the dominant geomorphic processes at WSMR since the Pleistocene. The gypsum dunes, located in the center of WSMR, are redeposited lake bed evaporates from the remains of the Pleistocene Lake Otero, which presently contains a remnant of its former size known as Lake Lucero. The gypsum sands originated from erosion runoff from the surrounding gypsum-rich formations of the Pleistocene mountain ranges.

Subsurface conditions at the HELSTF Facility are typically of the central Tularosa basin depositional fine grain sequences. The bedding surfaces are relatively flat with the exception of relict erosional and depositional structures.

2.5 Soils

A soil survey was conducted on WSMR in 1996, and the taxonomy was based on the soil classification system of the National Cooperative Soil Survey adopted in 1965 (USDA 1960). Three soil orders are recognized on WSMR, including Aridisols, Entisols, and Mollisols. Aridisols are typically found in arid climates. Soils within the HELSTF TSA Facility were covered with gravel or asphalt, while the areas not paved or utilized by the facility remained for the most part undisturbed.

2.6 Hydrogeology

Groundwater at or near the basin center is characterized by high TDS content in the range of more than 10,000 mg/L. The majority of the recharge to the southern bolsons near HELSTF occurs through the coarse, unconsolidated alluvial fan deposits along the eastern flanks of the Organ and San Andres Mountains. The groundwater becomes progressively more mineralized as it travels from the eastern flanks toward the center of the Tularosa Basin. This mineralization is attributed in part to the soluble minerals in the sediments and the slow movement of groundwater within the basin.

Regional groundwater beneath the area of investigation was encountered at approximately 90 ft bgs and contained total dissolved solids in the 8,000 to 9,000 ppm range. Regional groundwater flow was determined to be to the south and east with a hydraulic gradient of .00212 ft/ft. This was determined based on current water levels collected from the three existing monitoring wells installed as part of the previous site investigation. A boring log from the previous investigation (MEVATEC, 2002) indicated that the subsurface is comprised of fine to very fine grain sediments, clays, and silty clays. These sediments often have hydraulic conductivities on the order of 1×10^{-7} to 1×10^{-4} ft/day and do not produce a significant amount of water. Recharge to the existing monitoring wells is characteristically on the order of a couple of days to return to 90% of the static water level during purging.

Perched water conditions were encountered during the previous initial investigation by MEVATEC in the area of 30 to 35 ft bgs. During the North Wind, Inc. investigation, two zones of saturation were observed. The first zone of saturation was encountered at roughly 15 to 20 ft in a lithology of poorly graded sands and silt. The second zone was encountered in poorly graded silty sand with little to trace clay at approximately 30 to 35 ft. Below the two zones of saturation, the next saturated area was the regional water table at approximately 90 ft.

Water supplies usable for livestock, wildlife, or domestic use are limited within the Tularosa Basin. These supplies are limited to wells within built up areas, a few isolated wells in the foothills for wildlife use, and a few springs. The nearest potable wells are approximately 7 miles to the west. A large area of the Tularosa Basin has a shallow water table of poor quality. Some springs of poor quality water also are within the basin. These waters are brackish, high in total dissolved solids, and generally unfit for domestic or animal consumption.

3. SITE ASSESSMENT METHODOLOGY

3.1 Sampling Methodology

Groundwater and soil sampling were performed during this investigation by North Wind, Inc. to further characterize the impacts to subsurface soils and determine the effectiveness of the interim remedial action performed in 2000 by MEVATEC. Jointly, Section 3.2 and Table 3-1 outline the field investigative protocol and sample analytical program employed during this investigation.

3.2 General Field Investigation Procedures

3.2.1 National Environmental Policy Act Review

In 1969, Congress enacted the National Environmental Policy Act (NEPA), which requires all federal agencies to review the impacts of their programs on the environment. This review takes place early in the project planning phase. In AR 200-2, The Department of the Army issued guidance for complying with NEPA and at WSMR this guidance is implemented through the NEPA Process Guide issued in March 2002. For this investigation, the environmental review process was initiated by submitting a Description of the Proposed Action (DOPA) along with the required information to WS-ES-C. The review of the DOPA resulted in a determination that this investigation qualifies for a Categorical Exclusion. This was noted in the Review of Environmental Consideration (REC), which is the document that concludes the NEPA process at WSMR for activities that are categorically excluded. The REC can be reviewed as an attachment in Appendix C.

3.2.2 Utility Clearance

A utility clearance was performed prior to conducting drilling activities to ensure that all borehole locations were surveyed for the presence of overhead and underground utilities. A utility clearance was requested by Mr. William Little of BAE Systems on March 25, 2004. The actual clearance involved personnel from various organizations to review facility drawings for the presence of underground gas, water, sewer, and communication lines as well as underground and overheard power lines. These surveys were completed by April 15, 2004. The final survey was completed by Staff Sergeants Edwards and Gutierrez of the US Army's 734th Explosive Ordinance Battalion on April 21, 2004, who found the borehole locations and adjoining areas to be clear of surface explosive hazards. The completed utility clearance package is provided in Appendix D of this report.

3.2.3 Site Safety

A Health and Safety Plan (HASP) was completed as part of the planning stages of the HELSTF TSA POL project and was approved by the corporate health and safety officer (Mr. Bruce Miller) and the Manager of Southwest Operations, who are both employees of North Wind, Inc. This plan was prepared with guidance from Mr. William Little of BAE Systems to ensure that it properly tiered with the existing plan previously written by BAE Systems. Prior to starting field activities, all members of the field team including personnel from the Drilling Subcontractor (Raba-Kistner Consultants, Inc.) were briefed on the provisions of the HASP by the project safety officer, Mr. Carey Grzadzinski, also a North Wind employee. All team members signed the roster acknowledging this training. Thereafter, daily tailgate briefings were held in the early morning and led by the field team leader, Mr. Joey Gillespie of North Wind who recorded attendance in the daily safety briefing log. Both the roster and the log sheets are provided in Appendix E.

Table 3-1. Sample Analytical Program
HELSTF TSA POL Fuel Spill Investigation WSMR, New Mexico.

Parameter	Reference Method	Method Type	Laboratory Detection Limits	Hold Time** before/after extract	Container/ Preservative
Groundwater Parameters					
pH	SM 4500-H+	Electrometric			1-ltr poly, no preservative
Alkalinity	SM 2320B	Titrimetric	5.0 mg/L	14 days	
Total Dissolved Solids	SM 2540C	Gravimetric	50.0 mg/L	7 days	
Specific Conductivity	SM 2510B	Conductivity Meter	N/A	28 days	
IONS					
Dissolved Sulfate	EPA 300.0	Ion Chromatography	1.0 mg/L	28 days	500ml poly, field filtered, no preservative
Ammonium Perchlorate	EPA 314.0		5 ug/L		500ml poly, no preservative
ORGANICS					
VOCs, including MtBE	SW-8260B	GC/MS	1.0 - 10.0 ug/L	14 days	3-40 mL VOAs, HCL pH<2
SVOCs	SW-8270C	GC/MS	5.0 ug/L	7/40 days	2-1ltr ambers, 4°C
Gasoline Range Organics	SW-8015A Mod	GC	5.0 mg/L	14 days	3-40 mL VOAs, HCL pH<2
DISSOLVED METALS					
Arsenic	SW-6010B	ICP	0.01 - 0.1mg/L	180 days	500 ml poly Field filtered HNO3 , pH <2
Barium					
Cadmium					
Chromium					
Lead					
Selenium					
Silver					
TOTAL METALS					
Arsenic	SW-6010B	ICP	0.005 - 0.1 mg/L	180 days	500 ml poly, HNO3 , pH <2
Barium					
Cadmium					
Chromium					
Lead					
Selenium					
Silver					
Mercury	SW-7471A	cold vapor AA	0.002 mg/L	28 Days	
SOILS PARAMETERS					
Ignitability	SW-1010	Pensky-Martin			
VOCs, including MtBE	SW-8260B	GC/MS	25 - 125 ug/Kg	**48 hr TAT**	1 Brass
SVOCs	SW-8270C	GC/MS	0.25 mg/Kg	14/45 days	Sleeve per
Gasoline Range Organics	SW-8015A Mod	GC	50 mg/Kg	14 days	sample
Arsenic					
Barium					
Cadmium					remove
Chromium	SW-6010B	ICP	0.005 - 0.05 mg/Kg	180 days	VOC
Lead					sample
Selenium					first
Silver					
Mercury	SW-7471A	cold vapor AA	0.2 mg/Kg	28 days	

3.2.4 Drilling and Soil Sampling

The May 2004 investigation scope of work, to further characterize the HELSTF TSA POL site, involved the drilling of nine soil borings, installation of one regional groundwater monitoring well, and the drilling of five background soil borings. The logs for these soil borings are included in Appendix F.

Nine soil borings were drilled within approximately 3 ft of previous investigation locations performed during May and June of 2000 (Figure 3-1). The nine borings were drilled in close proximity to the previous borings to determine the effectiveness of a SVE remediation effort performed during the year of 2000 to 2001 and to further define the vertical and horizontal impacts by the contaminants. The soil borings were drilled similar to the previous investigation using a hollow-stem auger rig supervised by a North Wind, Inc. geologist using the Unified Soil Classification System (USCS) and the American Society for Testing and Materials (ASTM) Standards D 2487 and D 2488. Each soil boring was drilled to approximately 40 ft, with the last split spoon sample collected from 40 to 42 ft. Split spoon samples were collected at each 5-ft interval using a wire line retrieval system for the standard split-spoon sampler. Each standard split spoon sampler was properly decontaminated prior to collecting samples from each of the 5-ft intervals. New brass sleeves were utilized to line the split spoon sampler and collect the soils for shipment.

Soil samples for chemical analysis were collected and submitted in a 6-in. brass sleeve, with each end sealed first with Teflon sheets, and then a tight fitting plastic cap was placed over the Teflon sheet. The brass sleeves shipped daily to TraceAnalytical of Lubbock, Texas for extraction and analysis within 48 hours of receipt. Samples for chemical analysis were selected based on either visual contamination or high headspace readings or both.

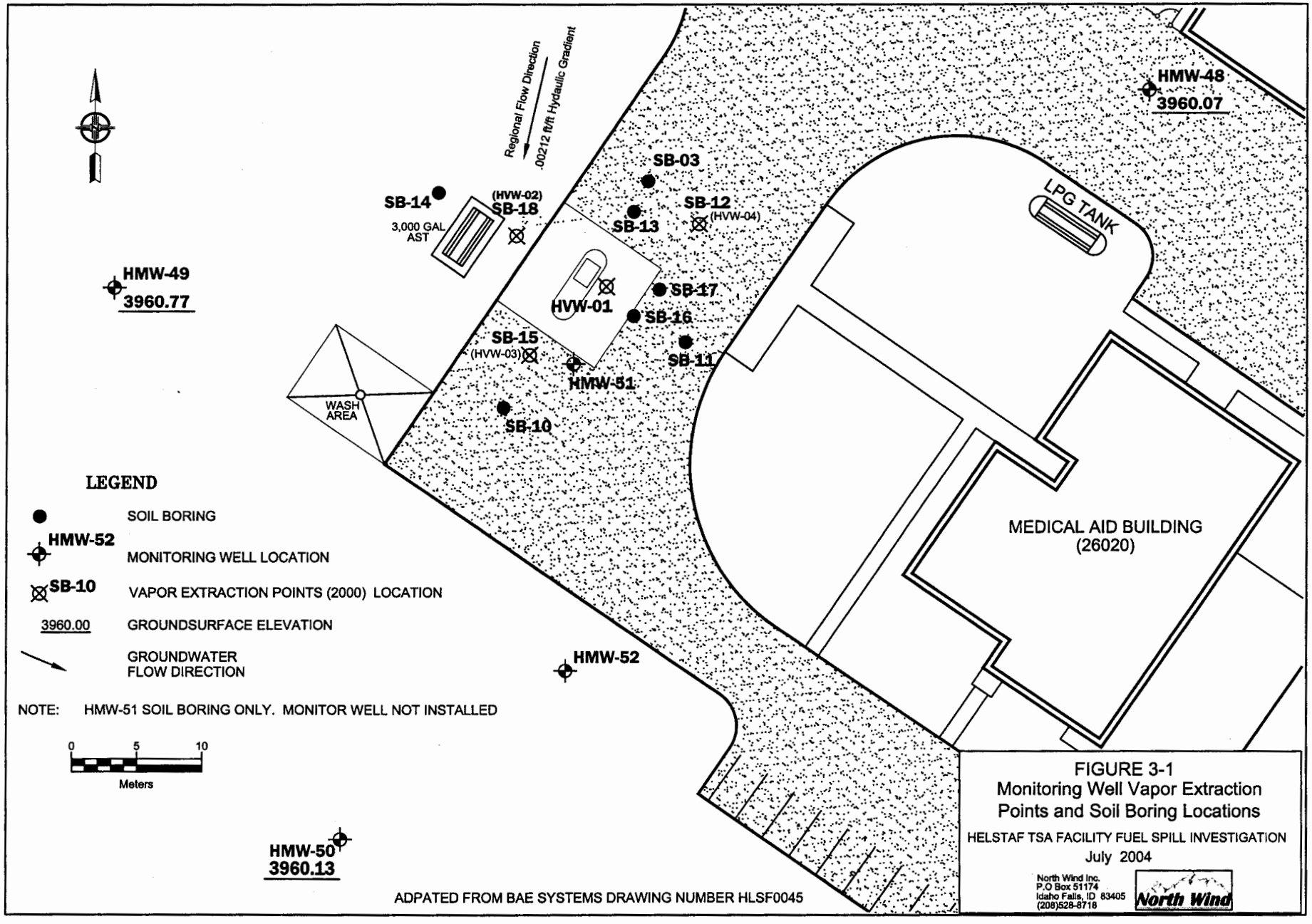
Five additional borings were located in areas unaffected by the contamination (Figure 3-2). The five borings were drilled utilizing the same drilling and sampling techniques as the nine borings within the area of impact. The borings were drilled to a total depth of 20 ft, with the last split spoon sample collected from 20 to 22 ft bgs. Samples were collected on 5-ft intervals for lithologic description and analytical samples were collected for lead from 10 to 12 ft and 20 to 22 ft. Soil samples were collected for inorganic (metals) analysis only by placing the material into sampling jars using new, disposable gloves and tongue depressors. Excess soil around the top of the sample jars was removed with a clean cloth or paper towel to ensure the cap fit tightly.

Each of the soil borings were abandoned with neat cement grout upon completion and the location was surveyed utilizing a hand held Global Positioning System (GPS) with Wide Area Augmentation System (WAAS) capability. The nine borings within the asphalt covered area were grouted to the ground surface (from 40 ft) upon completion of the drilling project and each boring was topped off with approximately 0.5 to 1 ft of concrete flush with the asphalt surface.

3.2.5 Well Installation and Groundwater Sampling

Two groundwater-monitoring wells were scheduled to be installed to the regional groundwater resource in addition to the existing three-groundwater monitoring wells installed during the year 2000. The two additional wells were to be drilled to a total depth of 100 ft and were to be constructed with 4-in. PVC casing with 5-ft, 0.010-in. slot screens bracketing the existing water level of 90 ft bgs. HMW-52 was installed without difficulty downgradient of the impacted area (Appendix G) and between the pump island and the downgradient well, HMW-50 (Figure 3-1). It should be noted that HMW-51, which was located within the area of impact, could not be installed during the 2004 investigation and was terminated at 70 ft due to the potential for cross contamination of the regional water table.

All four monitoring wells were sampled according to the sample analytical program, as presented in Table 3-1. The results of the groundwater samples are discussed in Section 3.2.5.2.


Regional Flow Direction
.00212 ft/ft Hydaulic Gradient
HMW-48
3960.07
SB-03
SB-12
(HVW-04)
SB-13
LPG TANK
SB-14
(HVW-02)
SB-18
3,000 GAL
AST
HMW-49
3960.77
SB-17
HVW-01
SB-16
SB-15
(HVW-03)
SB-11
HMW-51
WASH
AREA
SB-10
MEDICAL AID BUILDING
(26020)
LEGEND
SOIL BORING
HMW-52
MONITORING WELL LOCATION
SB-10
VAPOR EXTRACTION POINTS (2000) LOCATION
3960.00
GROUNDSURFACE ELEVATION
GROUNDWATER
FLOW DIRECTION
HMW-52
NOTE: HMW-51 SOIL BORING ONLY. MONITOR WELL NOT INSTALLED
0
5
10
Meters
HMW-50
3960.13
ADPATED FROM BAE SYSTEMS DRAWING NUMBER HLSF0045
FIGURE 3-1
Monitoring Well Vapor Extraction
Points and Soil Boring Locations
HELSTAF TSA FACILITY FUEL SPILL INVESTIGATION
July 2004
North Wind Inc.
P.O Box 51174
Idaho Falls, ID 83405
(208)528-8718
North Wind

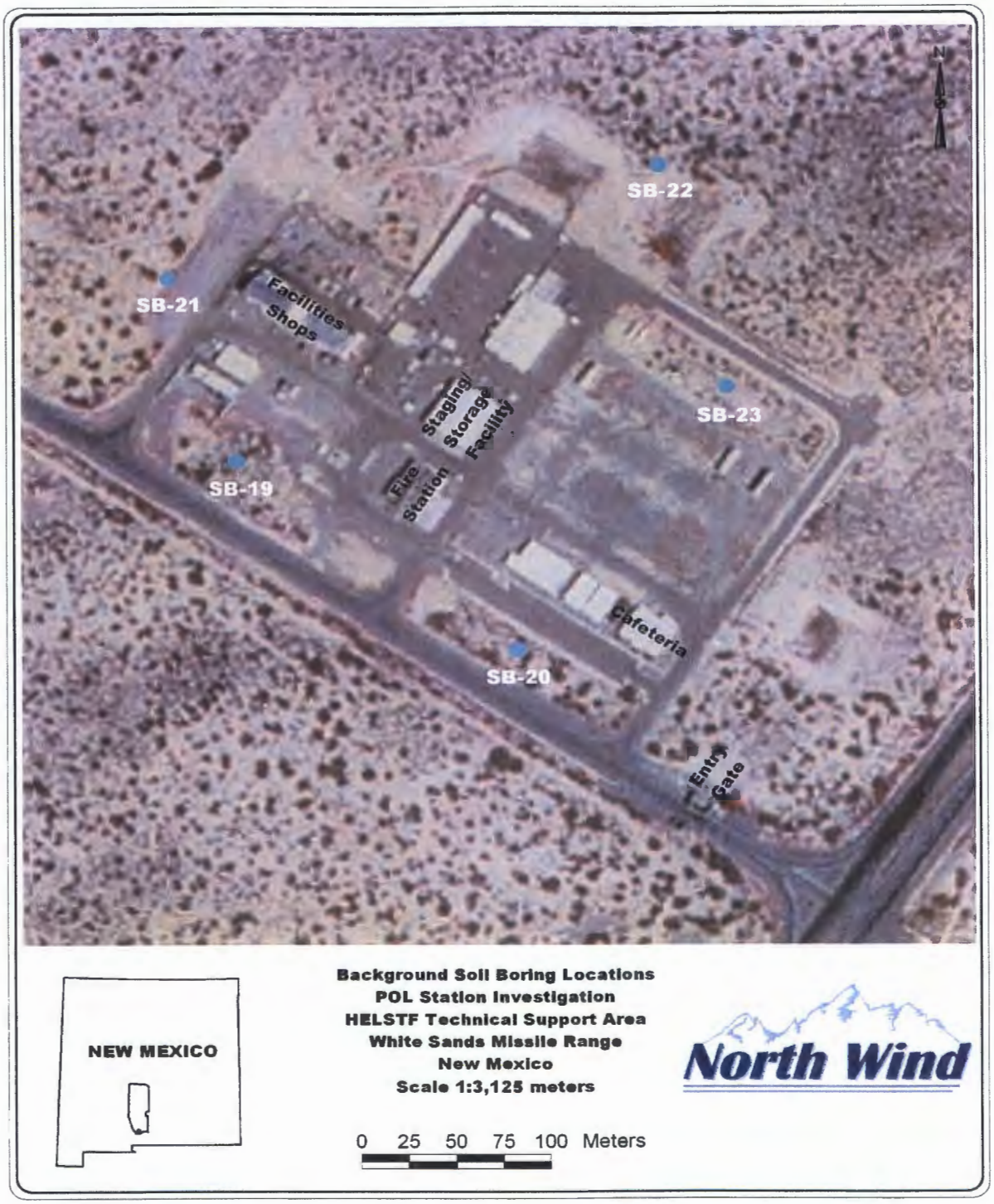


Figure 3-2. Aerial Photograph of Background Soil Boring Locations.

3.2.5.1 *Groundwater Monitoring Well Installation*

Three regional groundwater monitoring wells were installed during the initial HELSTF TSA POL Fuel Spill investigation during the year 2000 and were utilized in determining the regional groundwater flow direction and gradient for the placement of two additional monitoring wells by North Wind, Inc. during the 2004 investigation. Only one ground water monitoring well was installed during the 2004 investigation due to elevated levels of gasoline range organics in the 30- to 35-ft zone in the vicinity of the well installation. The well installation had the potential for impact during installation or creation of a conduit for contaminant migration into the regional aquifer.

Water levels were collected from the three existing monitoring wells (HMW-48, HMW-49, and HMW-50). A simple three-point problem was performed to determine the groundwater flow direction and gradient of the regional groundwater resource. HMW-52 was installed according to the calculated groundwater flow direction during this investigation. The location of HMW-52 was approximately 100 ft downgradient of the area of impact. Figure 3-1 illustrates the locations of HMW-51 and HMW-52. Table 3-2 provides the well construction information for the new and existing monitoring wells and vapor extraction wells located at the site.

Table 3-2. Monitoring Well and Vapor Well Construction Detail Summary HELSTF TSA POL Fuel Spill Investigation.

Monitoring Well ID	Northing	Easting	Elevation (m) TOC[a]	Static Water Level (ft BTOC)[b]	Screen Interval (ft)	Filter Pack	Total Depth (ft)	Bentonite Seal	Neat Cement
HVW[c]-01	3609640.227	377860.3171	3960.65	16.51	15 – 20	10 - 20	20.08	0 – 5	5 – 10
HVW-02	3609644.391	377858.1214	3959.76	No Access	31 – 36	30 – 36	No access	0 – 25	25 – 30
HVW-03	3609635.649	377854.7345	3960.52	28.48	31 – 36	30 – 36	36.53	0 – 25	25 – 30
HVW-04	3609642.819	377867.4503	3960.28	27.56	31 – 36	26 - 36	36.37	0 - 21	21 - 26
HMW[d]-48	3609676.278	377886.1329	3962.85	93.07	85 – 105	80 – 110	111.43	75 – 80	0 – 75
HMW-49	3609618.71	377829.1135	3962.71	93.22	85 – 105	80 – 110	113.0	75 – 80	0 – 75
HMW-50	3609593.563	377867.5639	3962.24	93.03	85 – 105	80 - 110	113.0	75 - 80	0 – 75
HMW-51	3609692.3[e]	377875.3	Soil Boring performed to 70 ft Monitoring well not installed						
HMW-52[f]	3609668.6[g]	3777874.7	NE[h]	91.05	88.5–93.5	85.2–99.0	99.79	78–85.2	0 - 78

Note:
a. TOC designates Top of Casing
b. BTOC designates Below Top of Casing
c. HVW is the abbreviation for HELSTF Vapor Extraction Well
d. HMW is the abbreviation for HELSTF Monitoring Well
e. MOY Surveying performed surveying for 2000 installations
f. HMW-52 was the only monitoring point installed during the 2004 Field Effort by North Wind, Inc.
g. Handheld GPS was utilized for locations of the 2004 Field Effort* WGS 84 UTM System
h. NE designates no elevation collected at this time

HMW-52 was constructed of 4-in. diameter flush threaded, schedule 40 PVC risers and 0.010-mil slot PVC screens. The screen was 5 ft in length and positioned to split the water table. A 5-ft sump was placed at the bottom of the well to prevent sediment buildup from blocking the screen. The well was developed toward the end of the project due to the well's slow recharge; it did not achieve 90% of its static water level until at least 14 days after installation. Development was performed by surging and bailing with a 3-in. ID PVC bailer. Physical parameters (pH, specific conductance and temperature) were recorded; however, the measurements did not stabilize and the well purged dry after approximately 1 casing volume or 6 gal. To prevent unauthorized access to the monitoring well, a master lock was placed on the well cap and the flush mount cover bolted shut.

Geotechnical samples were collected from the monitoring well boreholes to provide data for evaluation of remedial alternatives for a potential Corrective Measures Study, should selection of a remedy be warranted.

3.2.5.2 Groundwater Sampling

The three existing and one new groundwater monitoring well were sampled on June 2-3, 2004. Four groundwater samples, 1 duplicate, and 2 field blanks were collected and analyzed for specific conductivity, alkalinity, laboratory PH, TDS, dissolved sulfate, benzene, toluene, ethylbenzene, xylene, MBTE, lead, metals, volatile organic compounds (VOCs), and semivolatile organic compounds (SVOCs). Two trip blanks were collected and only analyzed for VOCs. Metals will be analyzed for both total (unfiltered) and dissolved (filtered) concentrations.

Field parameters of pH, temperature, and conductivity were measured along with a round of water levels prior to beginning sampling to evaluate groundwater flow direction and aquifer characteristics. Groundwater level measurements were collected from each of the monitoring wells prior to beginning sampling and were recorded to the nearest 0.01 ft with an electronic water level indicator. Measurements in each of the monitoring wells were measured at a mark or notch at the top of the stainless steel casing. The water level indicator probe was decontaminated prior to and after use by rinsing with water meeting requirements of ASTM Type II reagent water.

Each of the monitoring wells was purged with a bladder pump in order to remove any stagnant water in the well. The pump was positioned near the center of the wetted screen interval where the formation is most conductive. This interval was selected based on boring logs and pumping rates during purging. The pumping rate will be adjusted to prevent the water level in the well from dropping more than 1 ft below the static water level. This minimizes loss of volatiles due to water cascading down the well screen. Purging will continue until the field parameters of pH, temperature, and conductivity stabilize or at least three casing volumes are removed. These parameters are considered stable when three consecutive readings have a temperature + 0.5°C, pH is + 0.1 units, and conductivity is +1%. All purged water was containerized in approved containers at the well location. Once purging was completed, the well was sampled with the bladder pump in the same position at a rate of no more than 100 mL/min, but less than the purge rate, so that the water flowed smoothly into the container with little agitation. The laboratory will supply containers with appropriate preservatives already added.

3.2.6 Background Investigation

Five additional borings were performed in undisturbed areas to a depth equal to the POL facilities' most impacted zone to determine background concentrations of lead. The borings were identified as HLSF-0154-SB-019 through HLSF-0154-SB-023 and were drilled to a total depth of 20 ft. Split spoon samples were collected from 10 to 12 and 20 to 22 ft in each of the five borings and were submitted to the laboratory for lead analysis. The five borings are located on the aerial photograph illustrated in Figure 3-2.

3.2.7 Investigative Derived Waste

Investigative waste was generated during the 2004 investigation and consisted primarily of soil cuttings derived from the soil borings and well installation and the decontamination water and purge water generated from the steam cleaning of drilling equipment between each boring (Appendix H).

3.2.7.1 Soil Cuttings

Soil cuttings were immediately containerized in two roll off containers supplied by Rhino Environmental Services, Inc. The cuttings were segregated such that those that were generated in the impacted areas were kept in a separate roll-off from the cuttings generated by drilling the background boreholes. Upon completion of drilling activities, the soil cuttings in both containers was sampled using five-point composite methodology and both samples were analyzed for parameters requested by Rhino Environmental Services for proper waste profiling prior to land farming the soil in their facility in Otero County, New Mexico. With the assistance from personnel from the WSMR Hazardous Waste Minimization Center, both containers were shipped to the land farming facility on June 28, 2004. The Non-Hazardous Waste Manifests are provided in Appendix H of this report.

3.2.7.2 Decontamination / Purge Water

Decontamination of sampling and drilling equipment was contained in a decontamination pad located west and away from the area of impact to prevent cross contamination. The decontamination water was containerized in three 55-gal drums and properly labeled and delivered to the WSMR Hazardous Waste Minimization Center on the Main Post for storage and subsequent disposal. The Waste Input Forms for the three drums are included in Appendix H.

4. RESULTS OF SOIL AND GROUNDWATER INVESTIGATION

4.1 Subsurface Geology and Hydrogeology

Lithologic descriptions from the nine borings performed as part of this investigation and the one boring HMW-48/MW-001 from the 2000 preliminary investigation were utilized to develop cross sections, as illustrated in Figures 4-1 (east - west [A to A']) and 4-2 (north – south [B to B']).

The subsurface geology consists primarily of poorly sorted fine grain sands with silt and clay lenses from ground surface down to approximately 20 to 25 ft. Below that, the fine sands and clay becomes the predominant constituent as 1 to 4 ft thick silty sands with interstitial clay. At the interval of 30 to 35 ft, a saturated, silty clay/poorly sorted sand is prevalent beneath the site. Three of the four vapor extraction points are screened across this layer and have water levels ranging from 27.56 to 28.48 ft below top-of-casing. The water levels are above the screened interval in at least three of these vapor extraction points. Groundwater flow within this perched interval is anticipated to be to the east south-east but was not calculated at the time of this investigation. Water levels collected from the four monitoring wells and three of the vapor extraction wells indicate two separate areas of perched water above the regional water table. These water bearing zones are separated by clays that vary from 5 to 10 ft thick and are separated from the regional aquifer by a thick sequence of clay, with interstitial silty clay and poorly graded sand lenses beginning at approximately 35 to 40 ft and ending around 89 to 90 ft.

The regional aquifer exists beginning at approximately 90 ft within poorly graded sand lenses with interstitial clay as sequences. The regional aquifer was calculated to have a south and east flow direction with a hydraulic gradient of 0.00212 ft/day. The three existing monitoring wells were utilized in calculating the groundwater flow direction.

4.2 Analytical Results

4.2.1 Subsurface Soils

A summary of subsurface soils analytical results are illustrated in Table 4-1 and the complete analytical data from TraceAnalytics is located in Appendix I. Table 3-1 (provided earlier) lists the sample analytical procedures used to provide the summary results in Table 4-1. Table 4-1 lists the analytical contaminants of concern (COCs) for this investigation which included the following VOCs: benzene, ethylbenzene, toluene, total xylenes (BTEX), napthalene, and lead. Benzene concentrations averaged 65.66 mg/kg with the maximum of 542 mg/kg located at a depth of 30.5 to 31 ft at boring SB 13. Ethylbenzene averaged 27.72 mg/kg with the maximum of 210 mg/kg located at a depth of 30.5 to 31 ft in boring SB 18. Toluene averaged 58.83 mg/kg with the maximum of 583 mg/kg located at a depth of 30.5 to 31 ft in boring SB 18. Total xylenes averaged 68.3 mg/kg with the maximum of 615 mg/kg located in the interval 30.5 to 31 at the location SB 18. Napthalene averaged 0.250 mg/kg with the maximum of 1.310 mg/kg at the depth of 26 to 27 ft in boring SB 15. Lead concentrations within the impacted area averaged slightly higher at 13.67 mg/kg than the lead results from background soil boring locations.

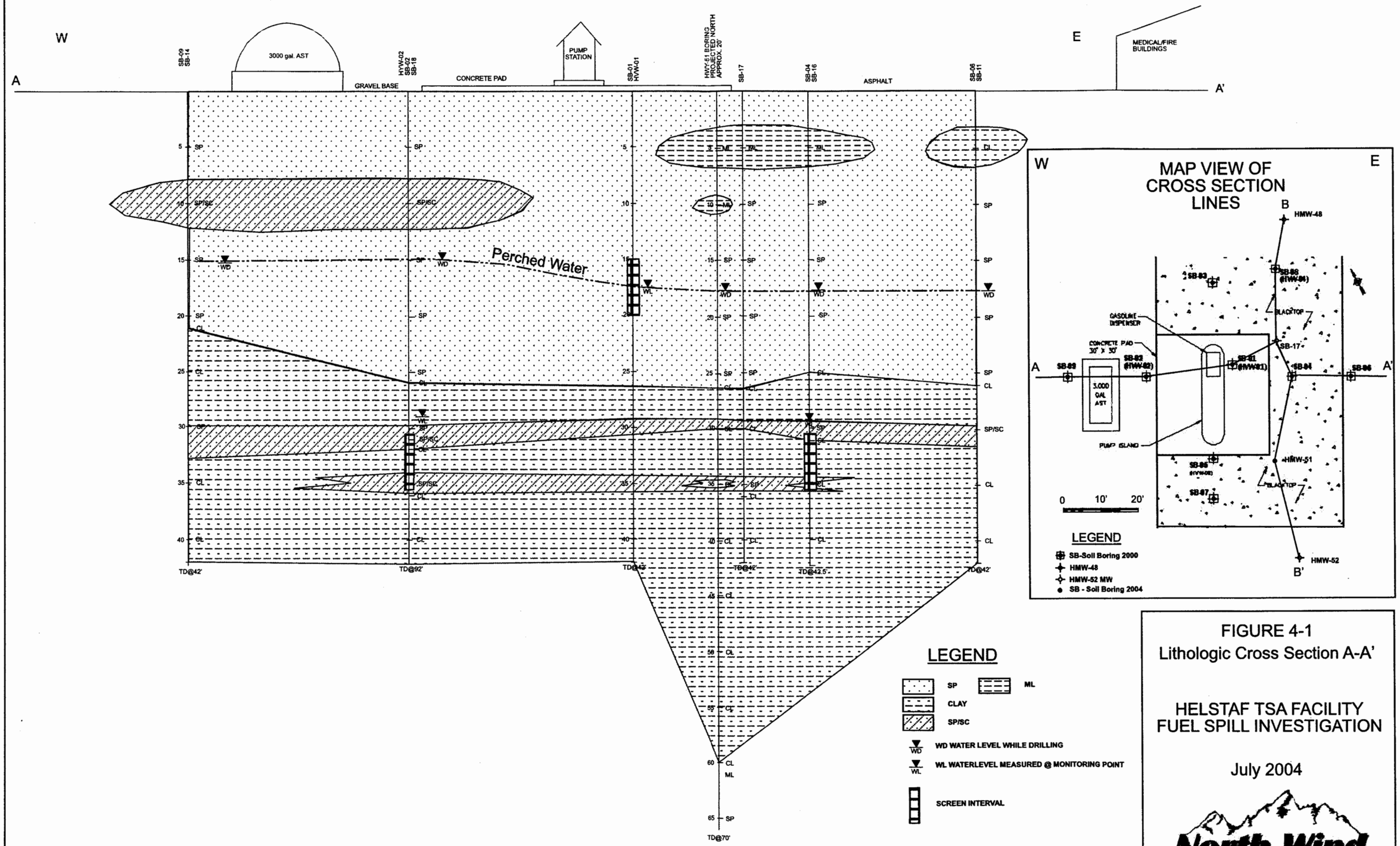
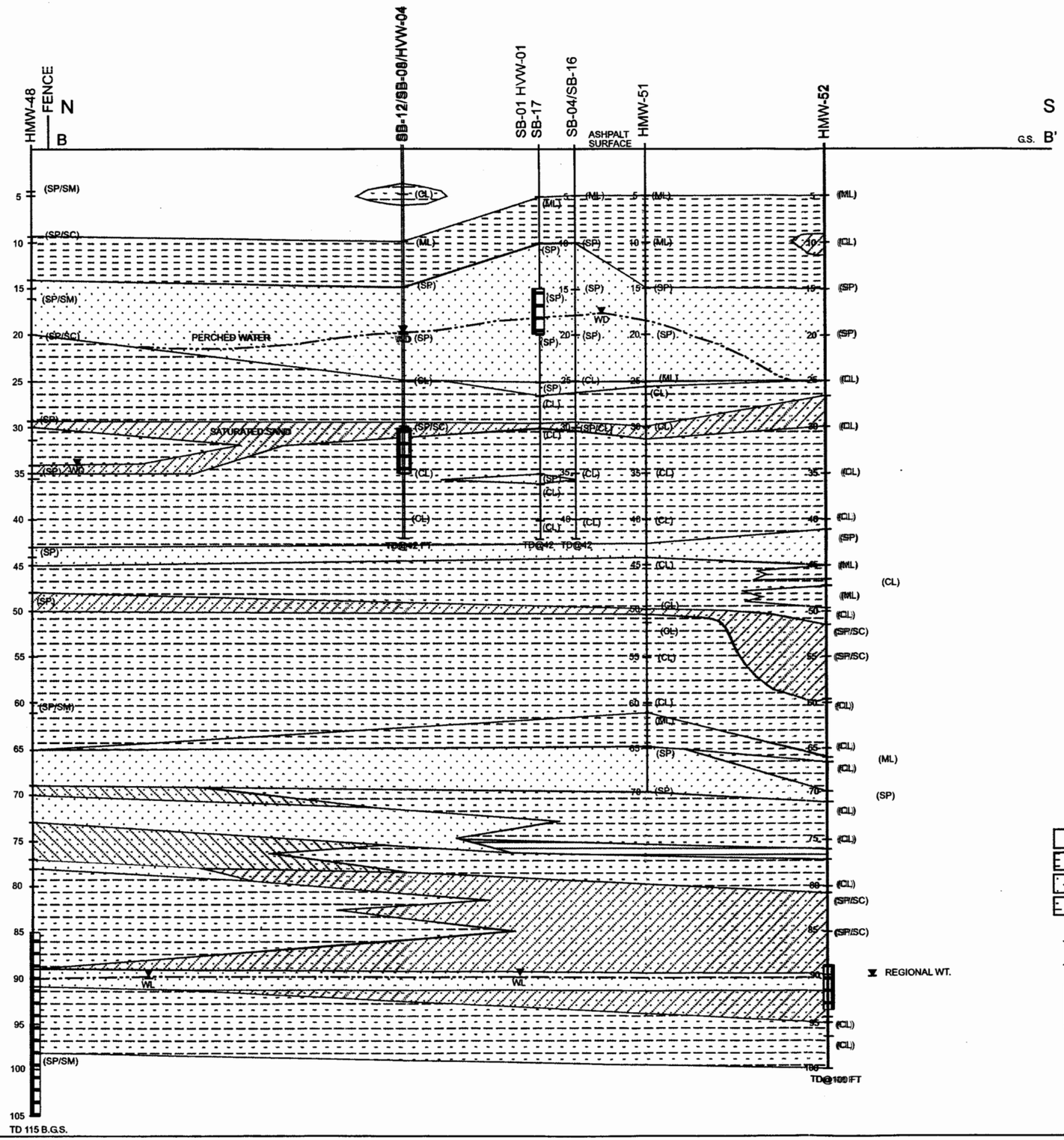


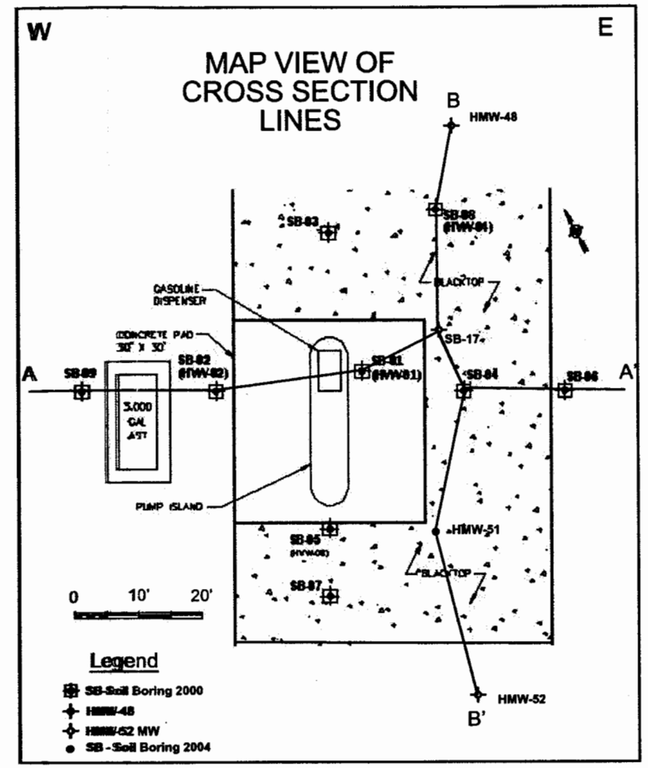
FIGURE 4-1
Lithologic Cross Section A-A'

HELSTAF TSA FACILITY
FUEL SPILL INVESTIGATION

July 2004

North Wind





LEGEND

- SP/SM
- ML
- SP
- CLAY
- ML/CL
- SC
- SP/SC
- WD WATER LEVEL WHILE DRILLING
- WL WATERLEVEL MEASURED @ MONITORING POINT
- SCREEN INTERVAL

HORIZONTAL SCALE 10FT
VERTICAL SCALE 40FT

ASSUMING FLAT G.S.

FIGURE 4-2
Lithologic Cross Section B-B'

HELSTAF TSA FACILITY
FUEL SPILL INVESTIGATION

July 2004

North Wind

Table 4-1. Analytical Results Contaminants of Concern in Soils HELSTF TSA POL Fuel Spill Investigation White Sands Missile Range, New Mexico.

Concentrations of Contaminants (ppm) by Sample Depth Interval (ft)

	SB-10 (6.5-7.0)	SB-10 (21.5-22)	SB-10 (26.6-27)	SB-11 (21.5-22)	SB-11 (26.5-27)	SB-11 (31.5-32)	SB-11 (36.5-37)	SB-12 (20.5-21)	SB-12 (26.5-27)	SB-12 (31.5-32)	SB-13 (20.5-21.)	SB-13 (26.5-27)	SB-13 (30.5-31)	SB-13 (35-35.5)	SB-13 (41.5-42)	SB-14 (30-30.5)	SB-15 (11.5-12)	SB-15 (21.5-22)
Benezene	ND	ND	0.116	0.169	0.256	0.0179	ND	0.0214	0.0258	0.0574	ND	0.0276	68.1	ND	0.0127	0.0214	ND	0.185
Toluene	ND	ND	0.324	1.3	0.437	0.0626	0.0105	0.124	0.0643	0.0961	0.670	0.057	542	0.0308	0.0496	0.0697	ND	0.647
Ethylbenzene	ND	ND	0.0458	0.266	0.040	0.0105	ND	0.200	0.0102	0.0266	0.207	ND	176	0.0104	0.0129	ND	ND	0.162
Total Xylenes	ND	0.081	0.1307	1.109	0.104	0.0347	ND	1.027	0.0433	0.1807	0.734	0.0134	511	0.0236	0.0412	0.0177	ND	0.194
EDB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
EDC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Napthalenes	ND	ND	ND	0.0518	ND	ND	ND	0.075	ND	ND	ND	ND	0.00852	0.0538	ND	ND	ND	ND
MTBE	ND	ND	ND	ND	0.0222	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH GRO	ND	ND	ND	0.00177	ND	ND	ND	0.00115	ND	ND	ND	ND	0.633	ND	ND	ND	0.00955	0.00183

Note - Analytical samples were collected from five ft intervals in all nine soil borings.
- **ND** represents non detect for that sample depth intervals.

Page 1 of 2

Table 4-1. Analytical Results Contaminants of Concern in Soils HELSTF TSA POL Fuel Spill Investigation White Sands Missile Range, New Mexico (Continued).

Concentrations of Contaminants (ppm) by Sample Depth Interval (ft)

	SB-15 (26.5-27)	SB-15 (31.5-32)	SB-15 (36..5-37)	SB-15 (41.5-42)	SB-16 (16.5-17)	SB-16 (20.5-21)	SB-16 (26.6-27)	SB-16 (30.5-31)	SB-16 (35.5-36)	SB-16 (41.5-42)	SB-17 (21-21.5)	SB-17 (26.5-27)	SB-17 (31.5-32)	SB-17 (41.5-42)	SB-18 (20.5-21)	SB-18 (26.5-27)	SB-18 (30.5-31)	SB-18 (36.5-37)	SB-18 (41.5-42)
Benezene	2.5	0.0532	0.014	ND	ND	1.210	1.060	1.510	0.354	0.214	10.100	0.188	0.241	0.0176	ND	0.0193	80.000	0.0128	0.038
Toluene	19	0.330	0.0451	2.230	ND	21.5	2.00	4.1	1.680	1.150	177	0.477	0.525	0.102	ND	0.0308	583	0.0351	0.134
Ethylbenzene	8.88	0.153	0.018	ND	ND	16.8	0.207	0.986	0.318	0.425	57.6	0.0847	0.0965	0.0221	149	0.022	210	ND	0.0329
Total Xylenes	26.790	0.547	0.0625	1.520	0.0472	60.4	0.619	2.895	0.929	1.350	170.3	0.2611	0.318	0.0763	449	0.0736	615	0.013	0.1116
EDB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
EDC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Napthalenes	1.310	0.340	0.0501	ND	ND	0.0134	ND	ND	ND	ND	0.00572	ND	ND	ND	0.0199	ND	0.0146	ND	ND
MTBE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	.146	.125	ND	ND	ND	ND	ND	ND
TPH GRO	0.0636	0.00106	ND	0.0298	ND	0.242	0.0241	0.0137	0.0119	0.00379	0.103	0.00409	0.0014	ND	3.2	0.00154	8.480	.00267	ND

Note - Analytical samples were collected from five ft intervals in all five soil borings.
- **ND** represents non detect for that sample depth intervals.

Page 2 of 2

4.2.2 Groundwater

A summary of groundwater analytical results is illustrated in Table 4-2. The laboratory analytical results are included in Appendix J. Groundwater samples collected from the three existing regional groundwater monitoring wells and the regional groundwater monitoring well were installed as part of this investigation. Groundwater analytical results of the samples from the regional aquifer revealed no detects of any COCs. TDS concentrations were elevated, as expected, from groundwater located within the Tularosa Basin.

Table 4-2. Water Quality Parameters in Groundwater HELSTF TSA POL Fuel Spill Investigation White Sands Missile Range, New Mexico.

Constituent	HMW-048	HMW-049	HMW-050	HMW-052
Total Dissolved Solids[a] (mg/L)	7,200	8,015	7,675	8,640
Total Alkalinity (mg/L)	90	102	102	144
Specific Conductivity (umhos/cm)	8,830	9,490	9,570	10,800
PH	7.66	7.63	7.62	7.68

a. The State of New Mexico is protective of groundwater with TDS Concentrations less than 10,000 mg/L

4.2.3 Background Soils

Background soil samples were collected from select areas surrounding the HELSTF TSA to compare with analytical results for lead from the area of the fuel spill in an attempt to determine if leaded gasoline had impacted the soils beneath at the POL site.

Analytical results for lead in soil samples collected from the background borings installed within the general vicinity of the HELSTF ranged in value from a maximum of 7.86 mg/kg to a minimum of 1.66 mg/kg, with an average of 3.92 mg/kg. This was in comparison to lead values from within the study area, which were slightly elevated and averaged 13.67 mg/kg. Even though the concentrations were slightly elevated, these concentrations are low in relation to the EPA standards for surface soils protective of children at a playground (400 mg/kg) and soils protective of workers at 1,200mg/kg. This investigation was not able to discern whether the elevated levels within the study area were attributable to leaded gasoline. However, the concentrations of both the background and site-specific values for lead at the HELSTF TSA Facility were still considerably less than the EPA standard of 400 mg/L. Laboratory analytical results from TraceAnalytical are included in Appendix I.

5. NATURE AND EXTENT OF CONTAMINATION

This section describes the nature and extent of the fuel spill impacts to the soils, vadose zone, and regional groundwater beneath the HELSTF TSA POL.

5.1 Source Characteristics

VOCs such as benzene, toluene, ethyl benzene, xylene (BTEX), and napthalene, originated from a leaking supply piping connecting an AST to a pump island at the HELSTF TSA POL Facility during the 2000 investigation by MEVATEC. This investigation confirmed the findings of the MEVATEC and further characterized the impacts of the contaminant and effectiveness of the SVE system.

5.2 Soils and Vadose Zone

VOCs generally move easier through soils saturated with groundwater and are less likely to be absorbed or attenuated as in dry, unsaturated fine grain materials. Some portion of the source from 0 to 25 ft bgs was removed by an interim remedial action which consisted of a soil-vapor extraction system installed and operated in the year of 2000. The remaining areas of impact appear to be in saturated, perched water bearing zones and within the 25- to 35-ft interval of the subsurface. The saturated interval from 30 to 35 ft appears to be attributing to the migration from soil boring 18 to soil boring 13 in a north easterly direction.

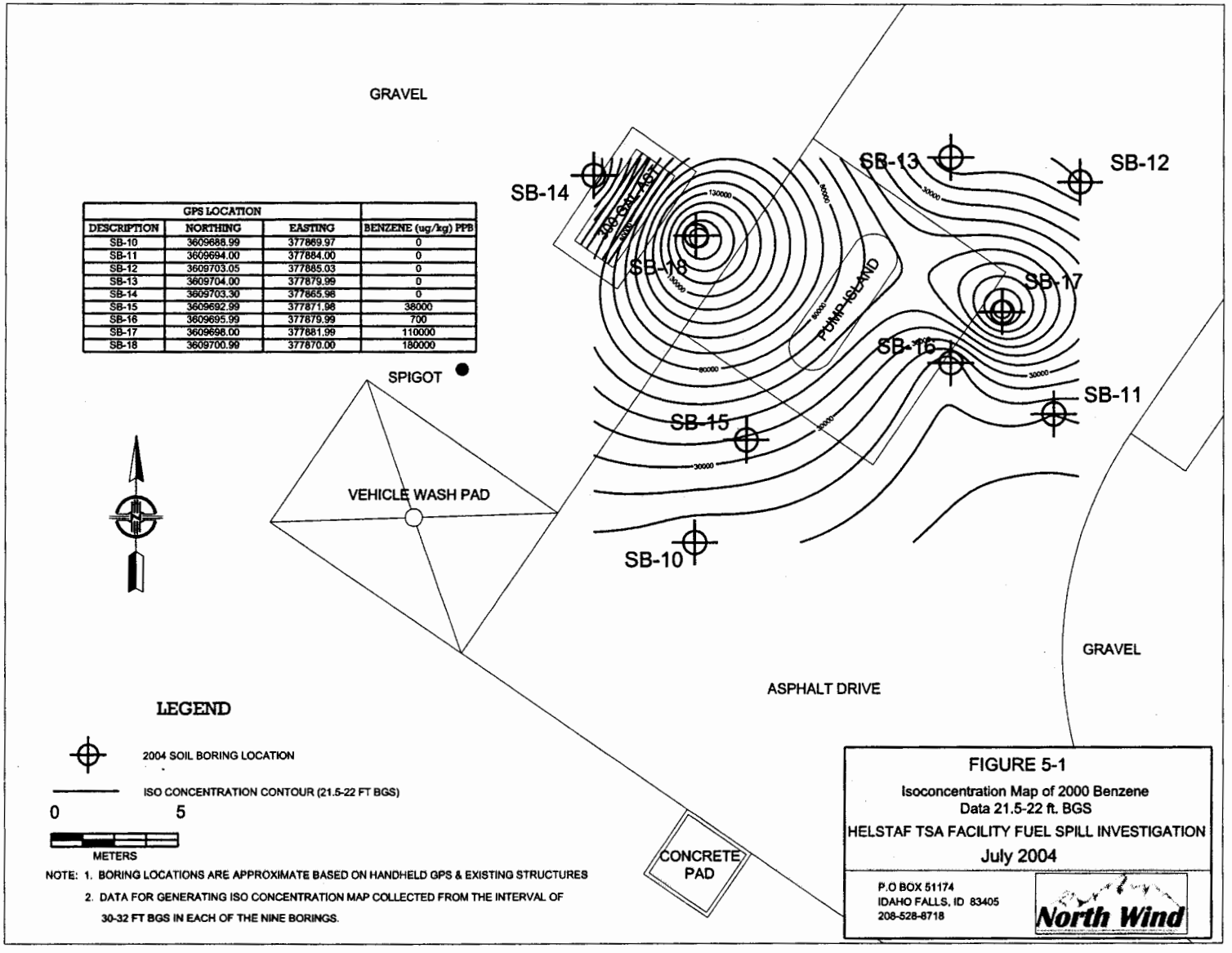
Contaminant migration has been illustrated through a comparison of analytical data from the preliminary investigation performed in 2000 and this investigation performed in 2004. Benzene was used as the contaminant for comparison in each of the following four figures (Figures 5-1 through 5-4) to illustrate the migration of the BTEX contaminants instead of illustrating each COC. These figures also serve to demonstrate the effectiveness of the SVE Interim Remedial activity within the porous upper lithology.

Figure 5-1 illustrates the concentrations encountered during the preliminary investigation at 21.5 to 22 ft (concentrations were not detected at enough locations below this depth to create an illustration). Figure 5-2 illustrates the concentrations encountered during this investigation in 2004 at a depth of 30 to 35 ft. In 2000, the contaminant is not as dispersed and is migrating in an easterly location in comparison to the 2004 data where the contaminant is more dispersed, deeper, and moving in a more north easterly location.

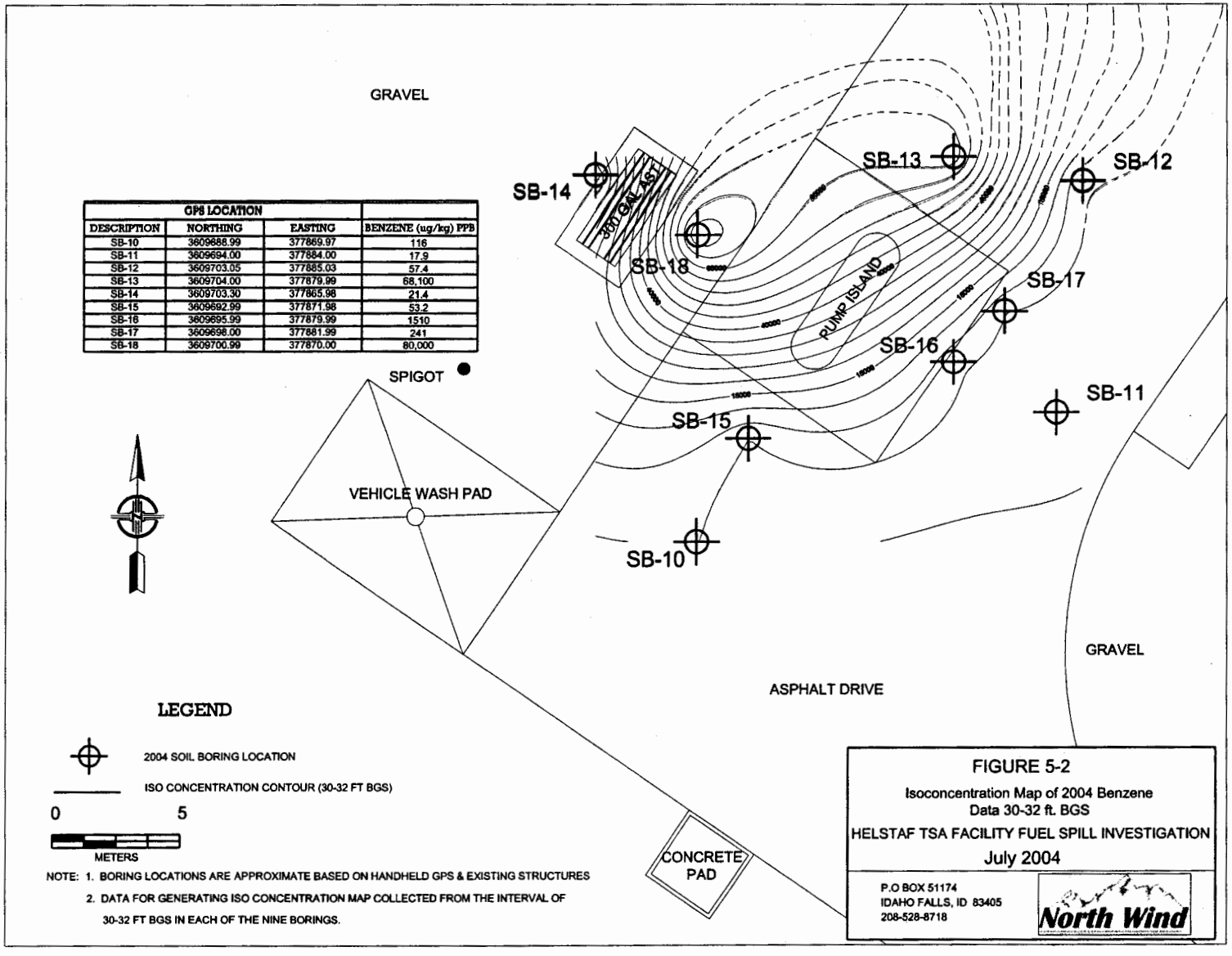
Concentration contours in cross sections comparing the 2000 data to the 2004 data are illustrated in Figures 5-3 and 5-4. These cross sections illustrate how benzene was removed from the upper more porous sediments and the movement of this contaminant over time to lower areas of silty sands and clays in the year 2004. In both sections (north-south and east-west), it is illustrated that the contaminant is lesser in concentration and leveling off above a significant clay layer at 40 to 45 ft bgs.

5.3 Groundwater

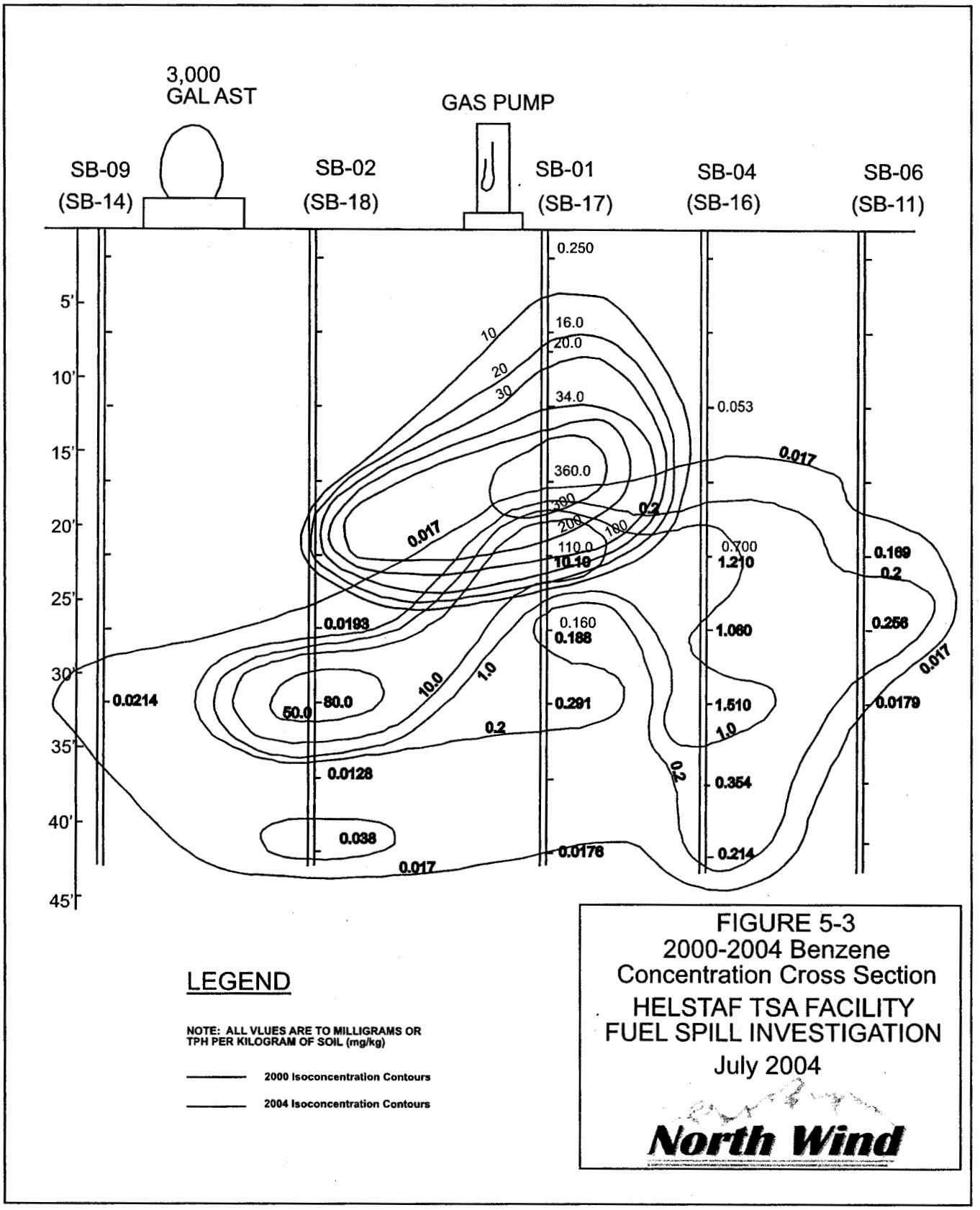
The regional groundwater resource remains free of impacts by the COCs in the interval from 25 to 42 ft above, as determined by a recent round of groundwater sampling performed in July of 2004.

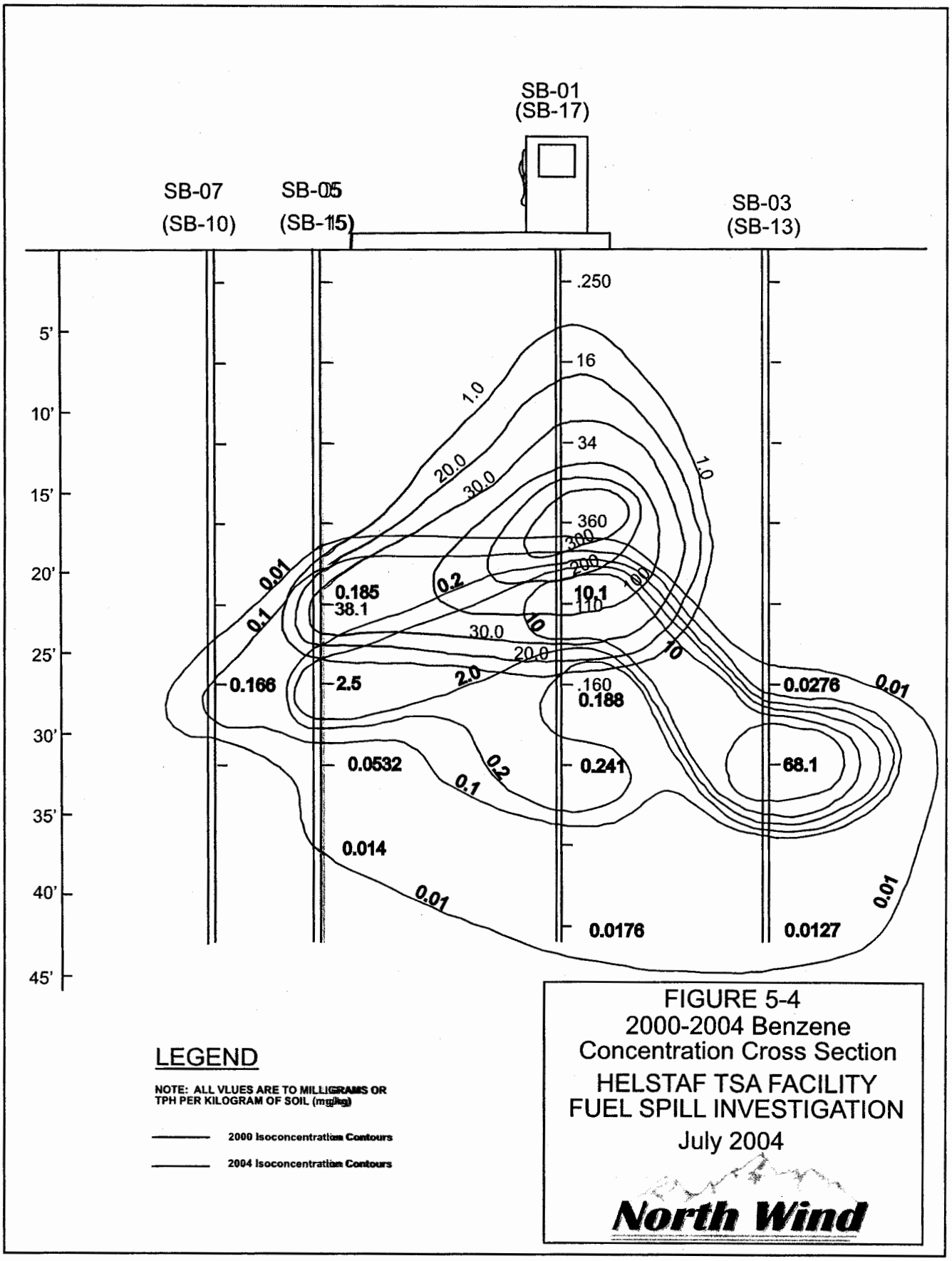


GPS LOCATION			
DESCRIPTION	NORTHING	EASTING	BENZENE (ug/kg) PPB
SB-10	3609688.99	377869.97	0
SB-11	3609694.00	377884.00	0
SB-12	3609703.05	377885.03	0
SB-13	3609704.00	377879.99	0
SB-14	3609703.30	377865.98	0
SB-15	3609692.99	377871.98	38000
SB-16	3609695.99	377879.99	700
SB-17	3609698.00	377881.99	110000
SB-18	3609700.99	377870.00	180000



GPS LOCATION			
DESCRIPTION	NORTHING	EASTING	BENZENE (ug/kg) PPB
SB-10	3609688.99	377869.97	116
SB-11	3609694.00	377884.00	17.9
SB-12	3609703.05	377885.03	57.4
SB-13	3609704.00	377879.99	68,100
SB-14	3609703.30	377865.98	21.4
SB-15	3609692.99	377871.98	53.2
SB-16	3609695.99	377879.99	1510
SB-17	3609698.00	377881.99	241
SB-18	3609700.99	377870.00	80,000


W
E
3,000
GAL AST
GAS PUMP
SB-09
(SB-14)
SB-02
(SB-18)
SB-01
(SB-17)
SB-04
(SB-16)
SB-06
(SB-11)
5'
10'
15'
20'
25'
30'
35'
40'
45'
0.250
16.0
20.0
34.0
360.0
300
200
100
110.0
10.10
0.053
0.700
1.210
1.060
1.510
0.354
0.214
0.169
0.2
0.256
0.017
0.0179
0.160
0.188
0.291
0.0193
0.0214
0.0128
0.038
0.0176
50.0
80.0
10.0
1.0
0.2
10
20
30
LEGEND
NOTE: ALL VLUES ARE TO MILLIGRAMS OR TPH PER KILOGRAM OF SOIL (mg/kg)
2000 Isoconcentration Contours
2004 Isoconcentration Contours
FIGURE 5-3
2000-2004 Benzene
Concentration Cross Section
HELSTAF TSA FACILITY
FUEL SPILL INVESTIGATION
July 2004
North Wind


S
N
SB-01
(SB-17)
SB-07
(SB-10)
SB-05
(SB-15)
SB-03
(SB-13)
5'
10'
15'
20'
25'
30'
35'
40'
45'
.250
16
34
360
300
290
110
1.0
20.0
30.0
0.01
0.1
0.2
0.185
38.1
10.1
30.0
20.0
10
2.0
0.166
2.5
.160
0.188
0.0276
0.01
0.0532
0.241
68.1
0.014
0.01
0.0176
0.0127
LEGEND
NOTE: ALL VLUES ARE TO MILLIGRAMS OR TPH PER KILOGRAM OF SOIL (mg/kg)
2000 Isoconcentration Contours
2004 Isoconcentration Contours
FIGURE 5-4
2000-2004 Benzene
Concentration Cross Section
HELSTAF TSA FACILITY
FUEL SPILL INVESTIGATION
July 2004
North Wind

6. CONTAMINANT FATE AND TRANSPORT

6.1 Routes of Migration

Based on analytical results, the contaminant is migrating along the surfaces of clay lenses moving from 20 to 22 ft at the boring SB-18 interval down to the 30- to 35-ft interval near boring SB-13 in a north easterly direction. In the subsurface conditions at the site the hydrocarbons could be moving up and down with the seasonal fluctuations of the saturated conditions within the shallow perched water. This fluctuation of water may be allowing the contaminant to migrate and become trapped as the perched water either rises or falls. Especially in lake bed sedimentary depositional environments which often contain of interspersed lens of fine sand, silt and clay lenses.

6.2 Contaminant Persistence

Light Non-Aqueous Phase Liquids can migrate in the vadose zone with the assistance of the slope of the water table and seasonal water table fluctuations. The soluble fraction of BTEX compounds are considered to have high water–air partition coefficients which favor the aqueous phase (Fetter 1993). The contaminant benzene and the more volatile fractions are more mobile in the subsurface in the presence of these saturated conditions, such as at the depth interval of 30 to 35 ft. Although reduced in concentration from the initial findings of the preliminary investigation in the spring of 2000, the contaminant continues to move through diffusion and advection with these perched water bearing zones above the regional groundwater resource creating a broader area of impact within the finer grain sediments.

Two areas that exceed the Risk Based Screening Levels (RBSLs) protective of groundwater for benzene were located in borings SB 18/02 and SB 13/03 at the depths of 20 to 25 ft and 30 to 35 ft, respectively. Both of these areas are saturated in the more porous zones with relict pore water trapped between clay lenses. The contaminant migration, as based on the data gathered during the 2004 investigation, is illustrated in Figures 5-3 and 5-4 as flattening out within the 40-ft interval at about the lowest extent of the saturated conditions.

Soil properties also play a considerable role in the degradation or persistence of hydrocarbons. Depending on the soils texture it may be able to retain the hydrocarbons as in the range of 40 L/m^3 for silty sands (Fetter 1993). Many hydrocarbons may also be degraded by the existing soil bacteria if the soils are aerobic. Soil conditions beneath the HELSTF TSA POL, as described earlier in this RFI, are relatively porous and aerobic to the depth where finer grain sediments exist and eventually the saturated conditions are retarded by significant clay lenses. These conditions at depth are not as aerobic as the near surface conditions allowing the contaminant to be persistent yet confined within the saturated conditions.

7. EVALUATION OF HUMAN AND ECOLOGICAL EXPOSURE POTENTIAL

7.1 Human Health

7.1.1 Baseline Risk Assessment

To determine the need for remediation and applicable cleanup targets at the HELSTF TSA POL site, a risk analysis was performed following the Risk Based Decision Making Process (RBDMP) for petroleum releases, developed by the NMED Underground Storage Tank Bureau (NMED 2000) (renamed the Petroleum Storage Tank Bureau in 2003). A Tier 1 analysis requires little site-specific chemical and hydraulic data and provides a conservative comparison of observed site contaminant concentrations to applicable RBSLs. For completeness and comparison, site contaminant concentrations were also compared to Soil Screening Levels (SSLs) developed by the NMED Hazardous Waste Bureau. When observed contaminant concentrations exceed RBSLs/SSLs in any medium for which a receptor pathway is potentially complete, either a higher tier risk analysis or remediation of the site to Tier 1 screening levels are required.

7.1.2 Contaminants of Concern

The NMED Underground Storage Tank Bureau's *Guidelines for Corrective Action* (NMED 2000) contains information on the COCs for the major types of petroleum products that are regulated by the bureau. Table 4-1 of the *Guidelines for Corrective Action*, "Contaminants of Concern for Different Product Releases" specifies benzene, toluene, ethylbenzene, xylenes (collectively abbreviated as BTEX), methyl-tert-butyl-ether (MTBE), total naphthalene, and total petroleum hydrocarbons – gasoline range organics (TPH-GRO) as being the COCs for unleaded gasoline for this investigation.

7.1.3 Site Conceptual Exposure Scenario

WSMR maintains administrative control of the current missile range property. The HELSTF TSA POL site is situated within the WSMR boundary (Figure 1-1) and access onto WSMR by the public is restricted, therefore all resident child and adult pathways are currently incomplete for the site. It is not anticipated that land use will change in the future to allow construction of residences, and should a residence be constructed directly above the localized contaminant source area, the pathway would still be incomplete since all contamination is greater than 15 ft below grade. In addition, no commercial facilities are located above the source area nor are they anticipated to be constructed over the site; the majority of the area is paved with asphalt and there are smaller areas covered with gravel and concrete. Therefore, all exposure scenarios for commercial workers are currently incomplete under both current and future land use scenarios. The groundwater ingestion pathway is incomplete because no drinking or irrigation water wells are located within a 7-mile radius of the site because the TDS in the area exceed 8,000 mg/L.

As a result of a recent subsurface investigation that revealed that impacted soils are concentrated below the typical construction depth of 15 ft, workers involved in construction activities reaching that level would not be susceptible to inhalation of volatilized compounds. Consequently, the outdoor inhalation pathway for construction workers is also considered incomplete. However, construction workers could be exposed to impacted subsurface soil if the construction of special use facilities which would require excavation depths greater than 15 ft; therefore, the onsite future land use scenario of "soil ingestion, inhalation, and dermal contact" is considered complete. Due to the restricted access and the distance between the site and the WSMR boundary, all off-site pathways are considered incomplete.

Volatile organic COCs have not been detected during two separate groundwater monitoring sampling efforts performed in 2000 and again in 2004 at the HELSTF TSA POL fuel spill site. This risk analysis has identified impacted soils exceeding representative soil concentrations protective of groundwater at depths of 25 to 35 ft in borings SB 18 and SB 13 during the most recent characterization study.

7.1.4 Estimation of Representative Concentrations

The NMED RBDMP (NMED 2000) requires that representative concentrations be calculated and compared to RBSLs/SSLs. Representative soil concentrations were determined by averaging all laboratory analytical results for each of the COCs, with analytical results above detection limits, obtained from soil samples within the impact area. In calculating the average representative concentrations, the following guidelines were used:

1. Non-detect soil samples within the soil source are considered contaminated to half the applicable detection limit.

2. Laboratory results from soil borings peripheral to the source were not used.

Table 7-1 presents the list of sample intervals used to determine the extent of contamination. Samples from 36 intervals that were not impacted are included in the table. These non-detect samples, located between impacted samples, are included in the calculation of representative concentrations and assigned half the applicable detection limit.

Table 7-1. Sample Intervals with COC Contamination (mg/kg).

B-10	B-11	B-12	B-13	B-14	B-15	B-16	B-17	B-18
21.0 – 22.0	21.5 – 22.0	20.5 – 21.0	20.0 – 20.5	30.0 – 30.5	21.5 – 22.0	16.5 – 17.0	21.0 – 21.5	20.5 – 21.0
26.5 – 27.0	26.5 – 27.0	21.0 – 21.5*	21.0 – 21.5*		26.5 – 27.0	20.5 – 21.0	21.5 – 22.0*	21.0 – 21.5*
	30.0 – 30.5*	21.5 – 22.0*	21.5 – 22.0*		30.0 – 30.5*	21.0 – 21.5*	26.5 – 27.0	21.5 – 22.0*
	30.5 – 31.0*	26.5 – 27.0	26.5 – 27.0		30.5 – 31.0*	21.5 – 22.0*	30.0 – 30.5*	26.5 – 27.0
	31.5 – 32.0	30.0 – 30.5*	30.0 – 30.5*		31.5 – 32.0	26.5 – 27.0	30.5 – 31.0	30.0 – 30.5*
	35.0 – 35.5*	30.5 – 31.0*	30.5 – 31.0		35.0 – 35.5*	30.0 – 30.5*	31.5 – 32.0	30.5 – 31.0
	35.5 – 36.0*	31.0 – 32.0	31.5 – 32.0*		35.5 – 36.0*	30.5 – 31.0	35.0 – 35.5*	31.5 – 32.0*
	36.5 – 37.0		35.0 – 35.5		36.5 – 37.0	31.5 – 32.0*	35.5 – 36.0*	35.0 – 35.5*
			35.5 – 36.0*		41.5 – 42.0	35.0 – 35.5*	36.5 – 37.0*	35.5 – 36.0*
			36.5 – 37.0*			35.5 – 36.0	41.5 – 42.0	36.5 – 37.0
			41.5 – 42.0			36.5 – 37.0*		41.5 – 42.0
						41.5 – 42.0		

* - Indicates sample interval was not contaminated, 0.5 detection limit used to determine representative concentration

All RBDMP COCs for unleaded gasoline were detected during laboratory analysis. Tables 7-2 through 7-7 present the interval concentrations used and calculated representative concentrations for each detected RBDMP COC in the impacted area at the HELSTF TSA POL fuel spill site.

Table 7-2. Interval Concentrations of Benzene (mg/kg).

0.5 detection limit = 0.0005 mg/kg

SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-16	SB-17	SB-18
0.0005 0.116	0.169 0.256 0.0005 0.0005 0.0179 0.0005 0.0005 0.0005	0.0214 0.0005 0.0005 0.0258 0.0005 0.0005 0.0574	0.0005 0.0005 0.0005 0.0276 0.0005 68.1 0.0005 0.0005 0.0005 0.0005 0.0127	0.0214	0.185 2.5 0.0005 0.0005 0.0532 0.0005 0.0005 0.014 0.0005	0.0005 1.21 0.0005 0.0005 1.06 0.0005 1.51 0.0005 0.0005 0.354 0.0005 0.214	10.1 0.0005 0.188 0.0005 0.0005 0.241 0.0005 0.0005 0.0005 0.0176	10 0.0005 0.0005 0.0193 0.0005 80 0.0005 0.0005 0.0005 0.0128 0.038
Total Analytical Results for Each Boring								
0.1165	0.4454	0.1066	68.144	0.0214	2.7547	4.3515	10.549	90.073

Representative concentration [mg/kg]: 2.49.

Table 7-3. Interval Concentrations of Toluene (mg/kg).

0.5 detection limit = 0.0005 mg/kg

SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-16	SB-17	SB-18
0.0005 0.324	1.3 0.437 0.0005 0.0005 0.0626 0.0005 0.0005 0.0105	0.124 0.0005 0.0005 0.0643 0.0005 0.0005 0.0961	0.67 0.0005 0.0005 0.057 0.0005 542 0.0005 0.0308 0.0005 0.0005 0.0496	0.0697	0.647 19 0.0005 0.0005 0.33 0.0005 0.0005 0.0451 2.23	0.0005 21.50 0.0005 0.0005 2 0.0005 4.1 0.0005 0.0005 1.68 0.0005 1.15	177 0.0005 0.477 0.0005 0.0005 0.525 0.0005 0.0005 0.0005 0.0102	0.0005 0.0005 0.0005 0.0308 0.0005 583 0.0005 0.0005 0.0005 0.0351 0.134
Total Analytical Results for Each Boring								
0.325	1.8121	0.2864	542.81	0.0697	22.254	30.433	178.107	583.20

Representative concentration [mg/kg]: 19.15

Table 7-4. Interval Concentrations of Ethylbenzene (mg/kg).

0.5 detection limit = 0.0005 mg/kg

SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-16	SB-17	SB-18
0.0005	0.266	0.200	0.207	0.0005	0.162	0.0005	57.6	149
0.0458	0.040	0.0005	0.0005		8.88	16.80	0.0005	0.0005
	0.0005	0.0005	0.0005		0.0005	0.0005	0.0847	0.0005
	0.0005	0.0102	0.0005		0.0005	0.0005	0.0005	0.022
	0.0105	0.0005	0.0005		0.153	0.207	0.0005	0.0005
	0.0005	0.0005	176		0.0005	0.0005	0.0965	210
	0.0005	0.026	0.0005		0.0005	0.986	0.0005	0.0005
	0.0005		0.0104		0.018	0.0005	0.0005	0.0005
			0.0005		0.0005	0.0005	0.0005	0.0005
			0.0005			0.318	0.0221	0.0005
			0.0129			0.0005		0.033
						0.425		
Total Analytical Results for Each Boring								
0.0463	0.3190	0.2382	176.23	0.0005	9.216	18.740	57.806	359.05

Representative concentration [mg/kg]: 8.76

Table 7-5. Interval Concentrations of Xylenes (mg/kg).

0.5 detection limit = 0.0005 mg/kg

SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-16	SB-17	SB-18
0.081	1.109	1.027	0.734	0.0177	0.500	0.0472	170.3	449
0.1307	0.104	0.0005	0.0005		26.79	60.40	0.0005	0.0005
	0.0005	0.0005	0.0005		0.0005	0.0005	0.2611	0.0005
	0.0005	0.0433	0.0134		0.0005	0.0005	0.0005	0.0736
	0.0347	0.0005	0.0005		0.547	0.619	0.0005	0.0005
	0.0005	0.0005	511		0.0005	0.0005	0.318	615
	0.0005	0.1807	0.0005		0.0005	2.895	0.0005	0.0005
	0.0005		0.0236		0.0625	0.0005	0.0005	0.0005
			0.0005		1.52	0.0005	0.0005	0.0005
			0.0005			0.929	0.0763	0.0135
			0.0412			0.0005		0.1116
						1.350		
Total Analytical Results for Each Boring								
0.2117	1.2502	1.2530	511.81	0.0177	29.421	66.243	170.95	1064.2

Representative concentration [mg/kg]: 25.99

Table 7-6. Interval Concentrations of MTBE (mg/kg).

0.5 detection limit = 0.0005 mg/kg

SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-16	SB-17	SB-18
0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
0.0005	0.0222	0.0005	0.0005		0.0005	0.0005	0.0005	0.0005
	0.0005	0.0005	0.0005		0.0005	0.0005	0.146	0.0005
	0.0005	0.0005	0.0005		0.0005	0.0005	0.0005	0.0005
	0.0005	0.0005	0.0005		0.0005	0.0005	0.0005	0.0005
	0.0005	0.0005	0.0005		0.0005	0.0005	0.125	0.0005
	0.0005	0.0005	0.0005		0.0005	0.0005	0.0005	0.0005
	0.0005		0.0005		0.0005	0.0005	0.0005	0.0005
			0.0005		0.0005	0.0005	0.0005	0.0005
			0.0005			0.0005	0.0005	0.0005
			0.0005			0.0005		0.0005
						0.0005		
Total Analytical Results for Each Boring								
0.0010	0.0257	0.0035	0.0055	0.0005	0.0045	0.0060	0.275	0.0055

Representative concentration [mg/kg]: 0.0046

Table 7-7. Interval Concentrations of Naphthalenes (mg/kg).

0.5 detection limit = 0.0025 mg/kg

SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-16	SB-17	SB-18
0.0025	0.0518	0.075	0.0025	0.0025	0.0025	0.0025	0.0025	0.0199
0.0025	0.0025	0.0025	0.0025		1.31	0.0025	0.0025	0.0025
	0.0025	0.0025	0.0025		0.0025	0.0025	0.0025	0.0025
	0.0025	0.0025	0.0025		0.0025	0.0025	0.0025	0.0025
	0.0025	0.0025	0.0025		0.34	0.0025	0.0025	0.0025
	0.0025	0.0025	0.00852		0.0025	0.0025	0.0025	0.0146
	0.0025	0.0025	0.0025		0.0025	0.0025	0.0025	0.0025
	0.0025		0.0538		0.0501	0.0025	0.0025	0.0025
			0.0025		0.0025	0.0025	0.0025	0.0025
			0.0025			0.0025	0.0025	0.0025
			0.0025			0.0025		0.0025
						0.0025		
Total Analytical Results for Each Boring								
0.0050	0.0692	0.0900	0.0848	0.0025	1.7151	0.0300	0.0250	0.0570

Representative concentration [mg/kg]: 0.0293

Analytical results from two groundwater sampling events (one in 2000 and another in 2004) did not detect volatile organic COCs above detection limits. As a result, this route of exposure was not evaluated.

7.1.5 Comparison of Representative Concentrations to Tier 1 RBSLs/SSLs

Representative concentrations for observed COCs did not exceed RBSLs/SSLs for future land use scenarios for on-site construction workers (see Table 7-8). All construction worker scenarios were well within RBSLs/SSLs and therefore, soil concentrations are protective of current and future on-site construction workers at the site.

Table 7-8. Representative Concentrations vs. RBSLs/SSLs.

Soils within the typical construction zone (Ingestion, inhalation, and dermal contact)				
Contaminants Of Concern	Representative Concentration (mg/kg)	RBSLs (mg/kg)	SSLs (mg/kg)	On-Site Construction Worker
Organics				
Benzene	2.49	167	157	NE
Toluene	19.15	6,310	248	NE
Ethylbenzene	8.76	5,980	571,000	NE
Xylenes (Total)	25.99	8,000	132	NE
MTBE	0.0046	377	40,700	NE
Polycyclic Aromatic Hydrocarbons				
Total Naphthalenes	0.0293	3,230	98.3	NE

NE = representative concentration does not exceed RBSLs/SSLs

In determining if soil concentrations are protective of groundwater, the RBDMP requires that an unsaturated soil configuration be identified for the site based on the thickness of the impacted area and transport zones. Once the configuration is determined, the appropriate RBSLs can be selected from Table 4-12 of the *Guidelines for Corrective Action* (NMED 2000). The most conservative values were selected for determining the impacted area (25 ft) and transport zone (48 ft). These values were between those listed in Table 4-12; therefore, the next highest impacted zone thickness (30 ft) and the next lowest transport zone thickness (30 ft) were used to determine a Tier 1 unsaturated zone soil configuration of 27. Comparisons of RBSL values from Table 4-15 in the *Guidelines for Corrective Action* and SSL values from Table A-1 in the *Technical Background Document for Development of Soil Screening Levels* (NMED 2004) to the current analytical results (Table 7-9) indicate that concentrations of BTEX in soils are not protective of groundwater. Comparison results can be found in the Tier 1 Report Forms (Appendix K).

Table 7-9. Representative Concentrations vs. RBSLs/SSLs.

Soil concentrations protective of groundwater				
Contaminants Of Concern	Representative Concentration (mg/kg)	RBSLs (mg/kg)	SSLs (mg/kg)	On-Site Construction Worker
Organics				
Benzene	2.49	0.060	0.0283	E
Toluene	19.15	7.10	6.80	E
Ethylbenzene	8.76	-	10.5	NE
Xylenes (Total)	25.99	8.74	10.1	E
MTBE	0.0046	0.170	0.0467	NE
Polycyclic Aromatic Hydrocarbons				
Total Naphthalenes	0.0293	-	0.393	NE

E = representative concentration exceeds RBSLs/SSLs NE = representative concentration does not exceed RBSLs/SSLs

7.2 Ecological

The ecological pathway is incomplete. This investigation has determined the majority of impact soils to be located at a depth of at 25 ft bgs and extending to 40 ft bgs. The surface area above the impacted soils is covered with asphalt and gravel for vehicular traffic. Ecological receptors would not have access to the impacted soil or perched conditions unless the material was excavated and brought to the surface.

8. SUMMARY AND CONCLUSIONS

Further characterization of the impacted area, lithology, effectiveness of the interim remedial action, and groundwater conditions at the HELSTF TSA POL facility indicate the following:

- SVE records estimated the removal of approximately 1,800 gal of product, which is greater than the reported release indicating prior long term leakage had also occurred.

- Lithology beneath the area consists of more porous poorly graded sands with silt to a depth of 25 ft below the site. Clay and sand lenses become interbedded below the 25 ft interval all the way into the regional groundwater resource.

- The interim remedial action (SVE) performed in July of 2000 was effective in removing the bulk of the source located within the more porous unsaturated zone above 25 ft.

- Presently, the impacted area consists of lower concentration values for the gasoline range organics from the findings of the preliminary investigation located deeper in the sediments beneath the site.

- The impacted area has migrated below the 25-ft interval and has migrated laterally and west toward the boring SB 9/14 and north and east toward the boring SB 3/13.

- Regional groundwater resource conditions at 90 ft remain the same from the last sampling effort performed during the preliminary investigation by MEVATEC/BAE.

- The current depth of contamination (> 25 ft) eliminates all but one exposure scenario, short-term future land use for temporary onsite construction workers. Temporary onsite construction workers would come in contact with the impacted soils only if excavating soils below the 25-ft level. Excavation to below the 25-ft level would only be the case for the future construction of a deep underground facility or the installation of a deep monitoring well. Even if one of these scenarios takes place, the concentration levels are well within NMED Underground Storage Tank Bureau's RBSLs and NMED Hazardous Waste Bureau's SSLs for future onsite construction workers.

- Representative soil concentration levels are not protective of the regional groundwater; however, site lithology is not conducive to additional vertical migration towards the non-potable aquifer.

9. RECOMENDATIONS

This investigation recommends a No Further Action with continued compliance monitoring of the four existing groundwater monitoring wells at the site to be protective of the regional groundwater resource.

The recommendation is based on the following findings of this investigation:

- Lithology beneath the site is protective of the regional groundwater resource.
- Contaminant concentrations show a decrease over time even though the areal extent has increased; it is dispersed and attenuated to a degree among fine grain sediments.
- Depth to the impacted area is below 15 ft bgs.
- Groundwater is high in TDS and classified as non potable.
- The expense of further remedial action may outweigh the risk of potential exposure to current and future receptors.
- Annual sampling for BTEX from each of the existing regional monitoring wells performed annually for approximately 10 years should be sufficient to detect any impacts to the regional aquifer. Results of the monitoring could be reviewed at the end of the 10-year period to determine if further actions are required.

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APPENDIX A

Site Photographs

Photo # 1.
CME 75 drilling rig performing the hollow stem auger drilling at HELSTF TSA POL investigation.

Photo #2.
View north of the fuel dispenser pad and 3,000-gal fuel tank with cones illustrating the completed boring locations.

Photo # 3.
View north east of the fuel dispenser and concrete pad conditions after the drilling of nine soil borings and one well installation.

Photo # 4.
View of completed HMW – 52 location downgradient of the fuel dispenser island.

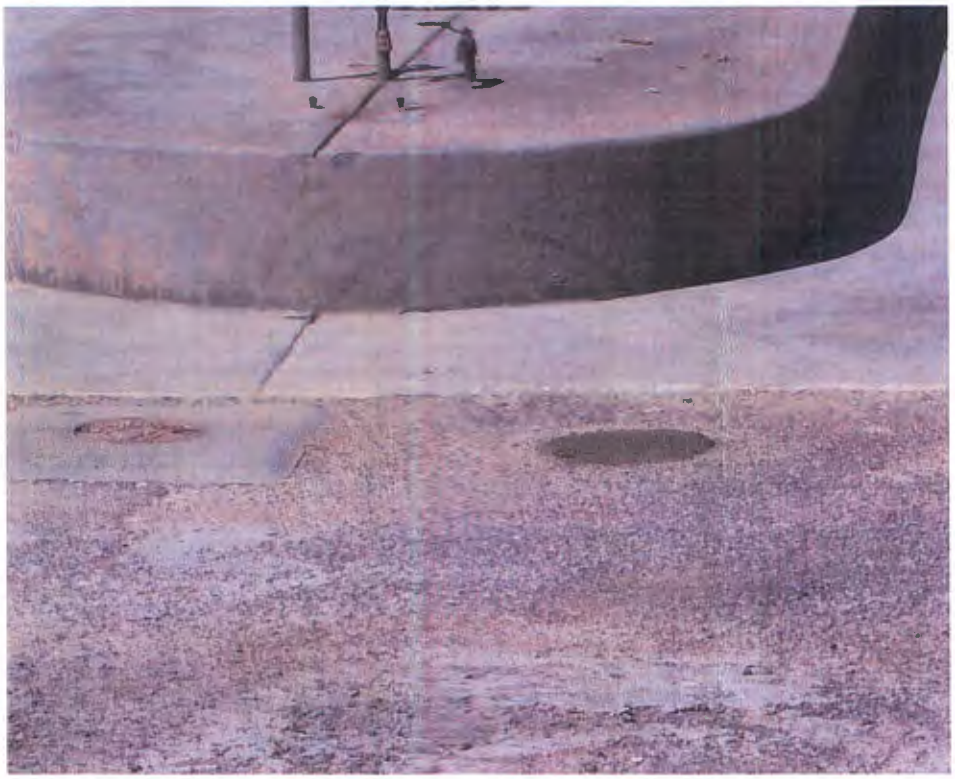

Photo # 5.
View north of concrete dispenser Island, HVW-03 on left with SB-15 on right.

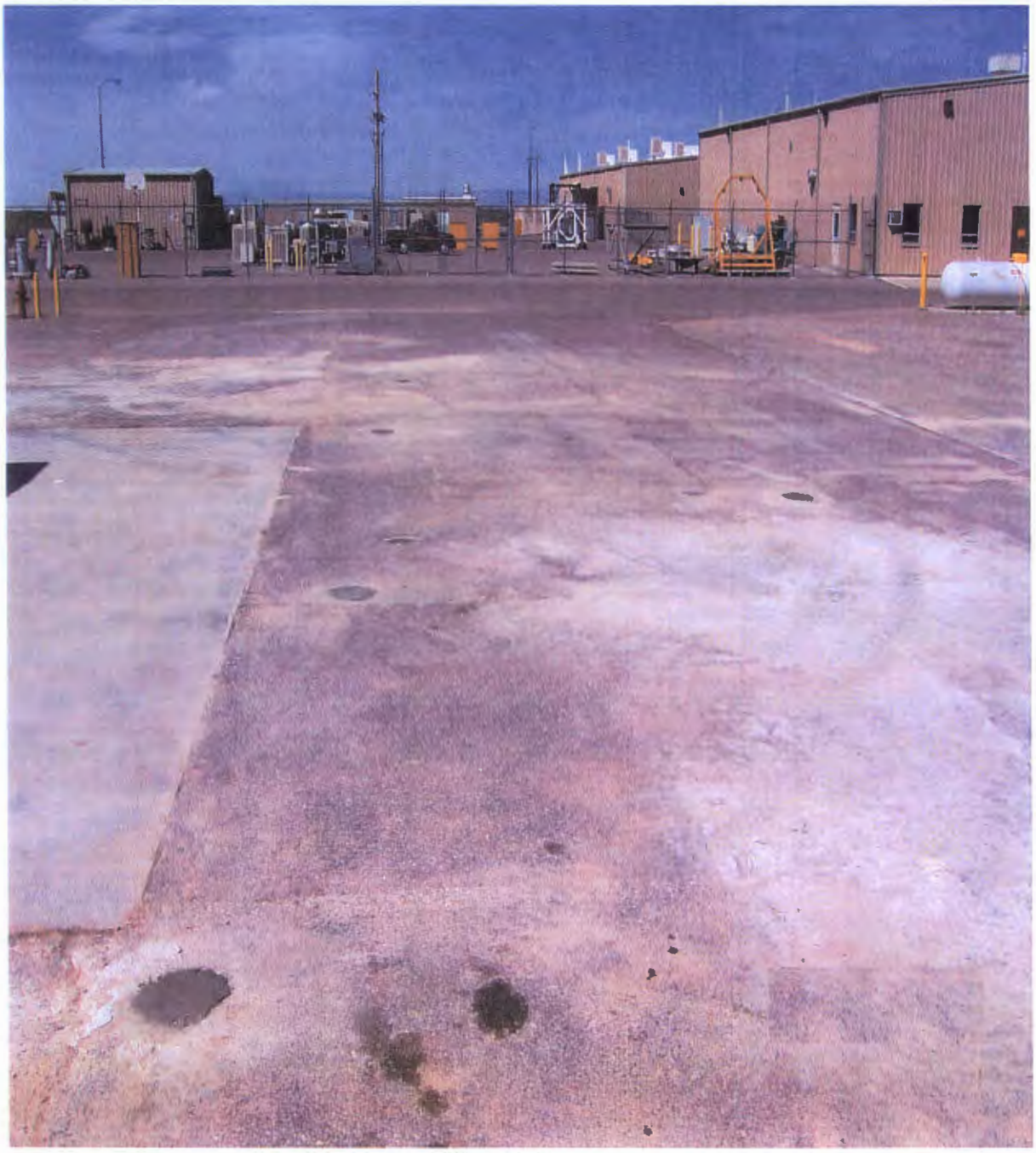

Photo # 6.
View north and west of completed boring locations with HMW-51 boring location in left corner foreground.

Photo # 7.
View west of location for background boring SB-19.

Photo # 8.
Example of groundwater sampling procedure at HMW-48 location north and upgradient of dispenser island.

Photo # 9.
View of purge water from HMW-52.

APPENDIX B

Previous Investigation Results Summary

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13. ABSTRACT (MAXIMUM 200 WORDS)

A soil and groundwater investigation was undertaken in May 2000 to determine the extent of contamination caused by an accidental release of 1,485 gallons (5,620 liters) of unleaded gasoline. Subsurface drilling provided soil and water samples and the results are provided in this report. Maximum downward migration of gasoline at the time of the investigation was determined to be approximately 30 feet (9 meters). The regional groundwater table was located at approximately 90 feet (27 meters). Following the investigation, a soil vapor extraction (SVE) pilot study was performed to determine the efficacy of method for contaminant removal. Based on the results of the pilot study, White Sands initiated continual operation of a SVE system to remove product from the subsurface and to minimize further contaminant migration. Following four months of operation, subsurface TPH concentrations decreased from approximately 30,700 parts per million to approximately 2,600 parts per million.
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HELSTF TECHNICAL SUPPORT AREA
PETROLEUM/OIL/LUBRICANTS STATION INVESTIGATION

Submitted to:

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

January 2002

Submitted by:

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

EXECUTIVE SUMMARY

A release of nearly 1,500 gallons (5,680 liters) of unleaded gasoline from a dispenser facility at the High Energy Laser Systems Test Facility Technical Support Area Petroleum/Oil/Lubricants Station was determined by White Sands Missile Range (White Sands) and New Mexico Environment Department (NMED) Ground Water Quality Bureau officials to be significant and requiring investigation and possibly remediation. In order to comply with NMED direction to determine the extent of contamination and the possible impact to groundwater, the White Sands Environment and Safety Directorate – Environmental Compliance Division (WS-ES-EC) initiated a site investigation in March 2000. Correspondence between White Sands and NMED is attached as Appendix A.

The phased investigation was comprised of two soil sampling efforts, shallow hand augering and deeper hollow stem drilling, to define the lateral and vertical migration of gasoline. Results of the shallow hand augering investigation indicated that further investigation using a hollow stem auger drilling rig was required. Hollow stem auger was also used to determine the depth to groundwater and background quality of the regional aquifer by the emplacement of three monitor wells. Contract laboratories analyzed soil and groundwater samples collected during the investigation in May and June 2000. Regional groundwater resources were encountered at a depth of approximately 90 feet (27.4 meters) below ground surface (bgs) and was determined to be non-potable due to the presence of concentrations of total dissolved solids (TDS) exceeding 8,000 milligrams per liter (mg/L). An additional shallow perched water-bearing zone was encountered at approximately 34 feet (10.4 meters) bgs and was also determined to be non-potable due to TDS concentrations of 26,000 mg/L.

Based on the analytical results of the investigation, the gasoline release appears to be held by surface tension within the contaminated soil zone extending approximately 30 feet (9.1 meters) vertically from the near-surface source. The regional groundwater resource was not affected by the subject release. However, the gasoline constituents benzene and toluene were detected in the shallow non-potable perched water bearing zone at concentrations above the New Mexico Water Quality Control Commission Standards (20 New Mexico Administrative Code 6.2, Section 3103).

During July 2000, White Sands initiated a soil vapor extraction (SVE) pilot study to determine the efficacy of this method for contaminant removal. The results of the pilot study indicated that SVE would be an effective method of remediation at the facility. White Sands accordingly installed and operated a soil vapor extraction system at the site for a period of four months. It is estimated that approximately 1,790 gallons (6,775 liters) of gasoline were removed from the subsurface. Analytical results of air samples collected from the vapor extraction well during operation of the SVE system indicated that subsurface TPH concentrations were reduced from approximately 30,700 parts per million (ppm) to approximately 2,200 ppm. Additionally, it is noted that subsurface benzene and toluene concentrations were significantly reduced as well. Obviously additional soil and groundwater sampling will be required in the near future to determine the effectiveness of the remedial action, verify that gasoline has not reached the regional aquifer, and potentially collect additional data for a site risk assessment. After receipt of NMED comments, White Sands will initiate additional actions at the site as required.

TABLE OF CONTENTS

Section **Page**

EXECUTIVE SUMMARY ..... **Error! Bookmark not defined.**

ACRONYMS vi

1.0 INTRODUCTION 1

2.0 BACKGROUND 2
- 2.1 Site Description/Operational History 2
- 2.2 Discussion of Geologic and Hydrogeologic Setting 3
  - 2.2.1 Regional Geology 3
  - 2.2.2 Regional Hydrology 4

3.0 INITIAL SITE ASSESSMENT 5
- 3.1 Hand Auger Investigation 5
- 3.2 Analytical Results 6
- 3.3 Initial Site Assessment Conclusion 7

4.0 SOIL AND PRELIMINARY GROUNDWATER INVESTIGATION 7
- 4.1 Real Property Planning Board Action and Record of Environmental Consideration 7
- 4.2 Utility Clearances 7
- 4.3 Site Safety 8
- 4.4 Drilling and Soil Sampling 8
- 4.5 Well Installation and Groundwater Sampling 10
  - 4.5.1 Regional Groundwater Monitoring Wells 10
  - 4.5.2 Groundwater Flow Direction and Gradient 12
- 4.6 Lithologic Soil Sampling 13
- 4.7 Investigation Derived Waste 13
  - 4.7.1 Soil Cuttings 13
  - 4.7.2 Decontamination Water 13

5.0 RESULTS OF SOIL AND PRELIMINARY GROUNDWATER INVESTIGATION 13
- 5.1 Subsurface Geology and Hydrogeology 13
- 5.2 Analytical Results 14
  - 5.2.1 Soil Matrix Results 14
  - 5.2.2 Water Matrix Results 17
- 5.3 Estimated Extent of Contamination 18

6.0 POTENTIAL CONTAMINANT EXPOSURE/MIGRATION PATHWAYS 19
- 6.1 Soil Pathway 19
- 6.2 Groundwater Pathway 20
- 6.3 Surface Water Pathway 20
- 6.4 Air Pathway 20

TABLE OF CONTENTS
(continued)

Section **Page**

7.0 INVESTIGATION CONCLUSION AND RECOMMENDATIONS 20
7.1 Vadose Zone 20
7.2 Groundwater 21
7.3 Remedial Options Considered 21

8.0 Corrective Action 22
8.1 SVE Pilot Study 22
8.2 Long Term SVE Operation 22

REFERENCES 28

List of Figures

Figure 1-1. Location of the Investigation on White Sands Missile Range. 1
Figure 1-2. Site Plan of the HELSTF Technical Support Area 2
Figure 2-1. Generalized East-West Cross Section of the Southern Part of the Tularosa Basin, North of Highway 70. 3
Figure 3-1. Locations of Hand Auger Borings (HA-01 thru HA-06). 5
Figure 4-1. Locations of Soil Borings Installed with Hollow-Stem Auger, May 2000. 8
Figure 4-2. Location of Groundwater & Vapor Recovery Wells and Potentiometric Surface of the Regional Aquifer below HELSTF TSA, October 2000. 11
Figure 5-1. Locations of Soil Borings Installed with Hollow-Stem Auger, May 2000. 15
Figure 5-2. Extent of Soil Contamination Along Section A-A'. 16
Figure 5-3. Extent of Soil Contamination Along Section B-B'. 16
Figure 8-1. Reduction in TPH Concentration 24
Figure 8-2. Reduction in BTEX Concentration 24
Figure 8-3. RPM vs BTU Power Curve for the SVE System 25
Figure 8-4. Gasoline Burn Rate and Liquid Propane Consumption Rate 27

List of Tables

Table 3-1. Qualitative Summary of Hand Auger Borings HA-04, HA-05, and HA-06 6
Table 3-2. Soil Concentrations Determined By 8015 (GRO) And 8021 B. 7
Table 4-1. Vapor Well Construction Data. 9
Table 4-2. Regional Aquifer Monitoring Well Construction Data. 12
Table 5-1. Regional Aquifer Sample Results 17
Table 5-2. Perched Aquifer Contaminant Concentrations from HVW-04 during the June 2000 Sampling Event 18
Table 5-3. Concentrations of Dissolved Chemical Species in Groundwater at the June 2000 Sampling Event 18
Table 8-1. Analytical Results from Air Samples Collected During Operation of the SVE System 23
Table 8-2. ICE BTU Requirements 25

ACRONYMS

AQB	(NMED) Air Quality Bureau
AST	aboveground storage tank
ASTM	American Society for the Testing of Materials
BTEX	benzene, toluene, ethylbenzene, xylene
cm	centimeter
EPA	U.S. Environmental Protection Agency
FID	flame-ionization detector
ft	foot, feet
GRO	gasoline range only
HELSTF	High Energy Laser Systems Test Facility
HMW	HELSTF monitor well (groundwater)
HVW	HELSTF vapor well (soil gas)
ICE	internal combustion engine
IDW	investigation-derived waste
kg	kilogram(s)
km	kilometer
lbs	pound(s)
m	meter(s)
MTBE	methyl-tert butyl ether
mg/L	milligrams per liter
mi	mile(s)
MW	(groundwater) monitoring well
NMED	New Mexico Environment Department
pH	negative log of hydrogen concentration
PID	photo ionization detector
POL	petroleum, oils, lubricants
PPE	personal protective equipment
QA	quality assurance
REC	Record of Environmental Consideration
RPPBA	Real Property Planning Board Action
SB	soil boring
SM	Standard Method
SVE	soil vapor extraction
TDS	total dissolved solids
TPH	total petroleum hydrocarbons
TSA	Technical Support Area
U.S.	United States of America
USGS	United States Geological Survey
WQCC	(New Mexico) Water Quality Control Commission
White Sands	White Sands Missile Range
WS-ES	Environment and Safety Directorate
WS-ES-EC	Environmental Compliance Division
yd	yard(s)

HELSTF TECHNICAL SUPPORT AREA PETROLEUM / OIL / LUBRICANTS STATION INVESTIGATION

1.0 INTRODUCTION

On 16 March 2000, the White Sands Missile Range (White Sands) Environmental Compliance Division (WS-ES-EC) was notified that a release of unleaded gasoline had occurred at the Technical Support Area (TSA) Petroleum/Oil/Lubricants (POL) Station at the High Energy Laser System Test Facility (HELSTF). The location of the release site is shown in Figures 1-1 and 1-2. The New Mexico Environment Department's (NMED) Ground Water Quality Bureau was immediately notified in accordance with Section 1203 of the New Mexico Water Quality Control Commission (WQCC) Regulations [20 New Mexico Administrative Code (NMAC) 6.2]. NMED personnel directed White Sands to perform studies to determine the extent of contamination. Copies of correspondence between NMED and White Sands are in Appendix A.

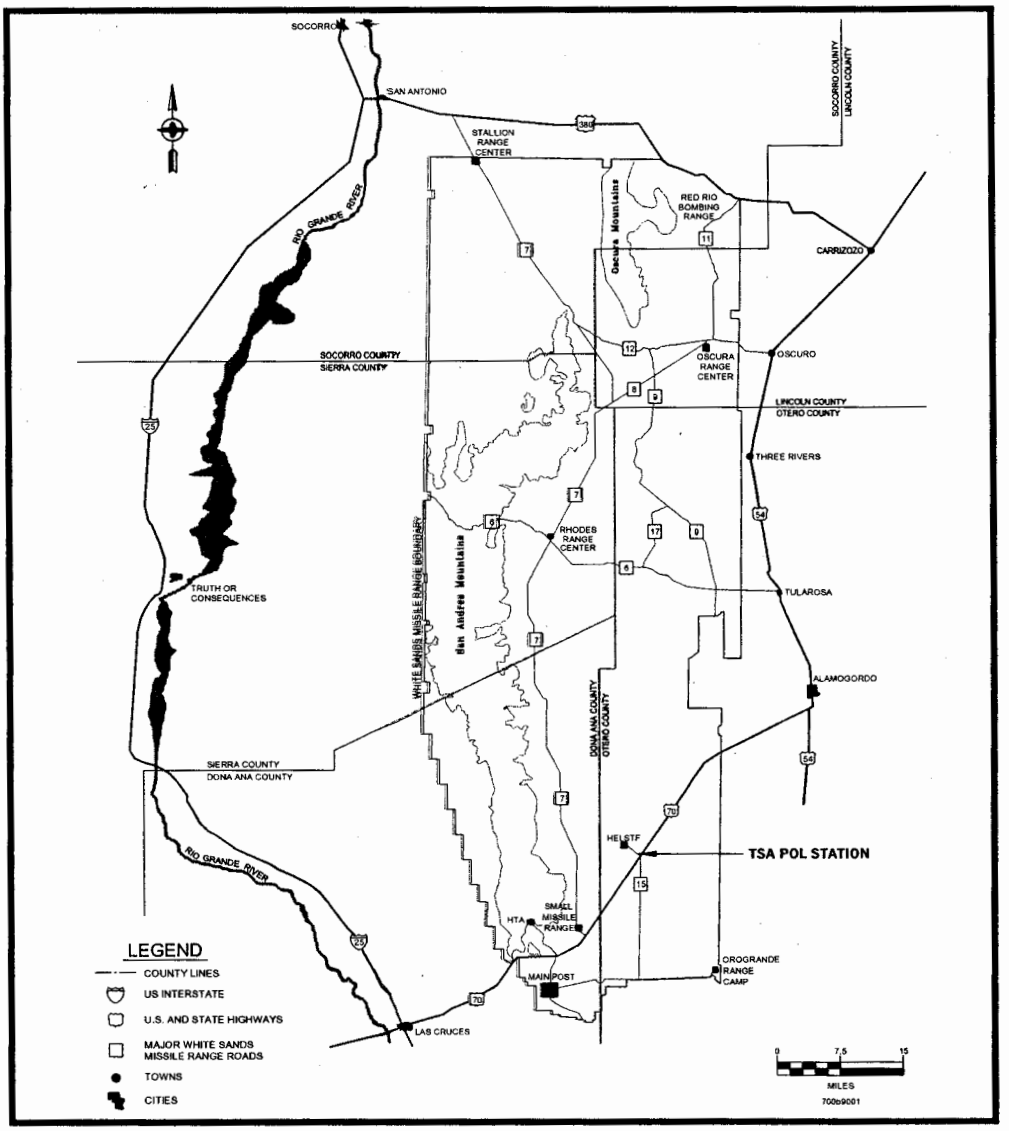

Figure 1-1. Location of the Investigation on White Sands Missile Range.

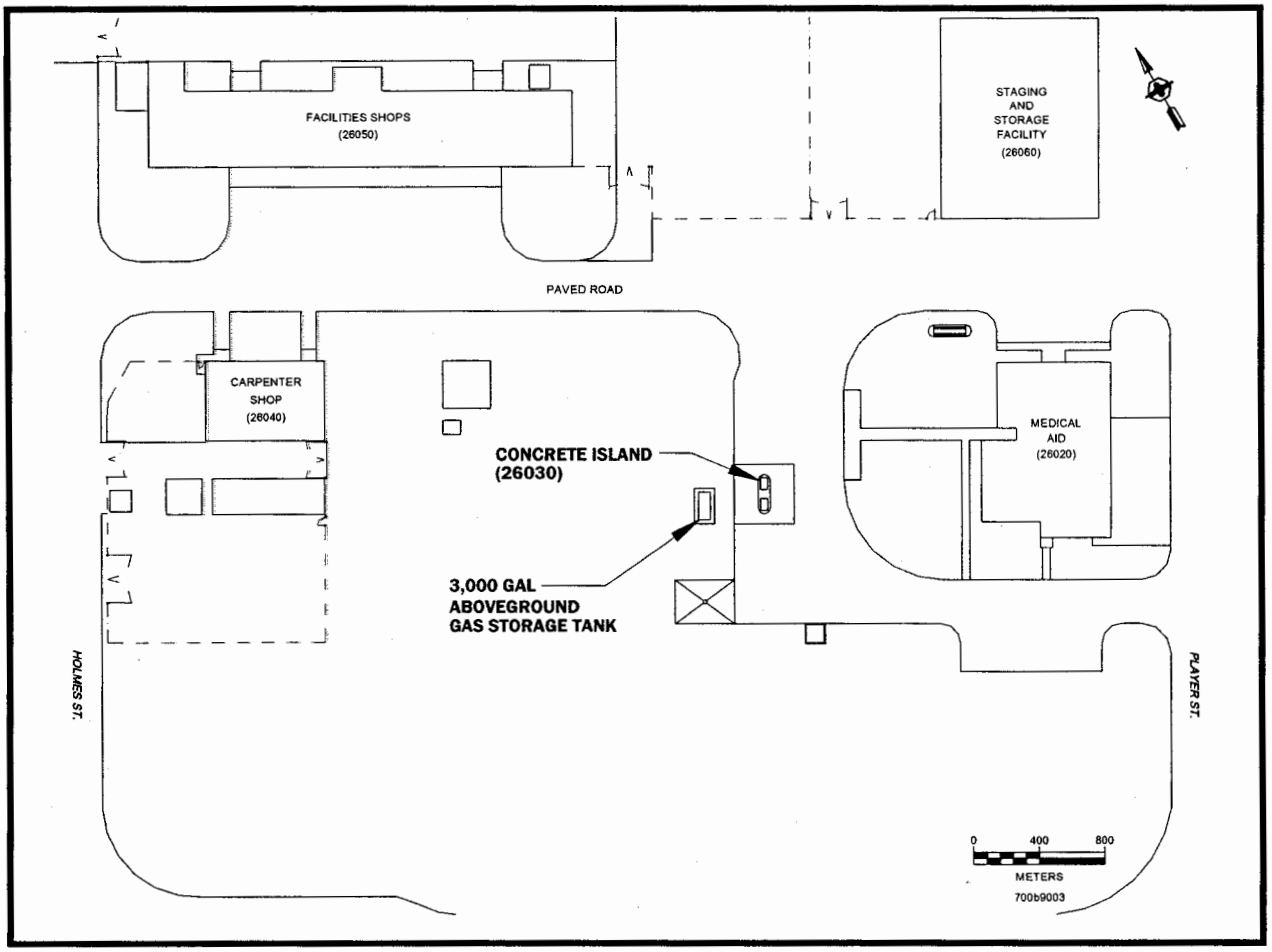

Figure 1-2. Site Plan of the HELSTF Technical Support Area.

Immediately upon notification of the release, White Sands performed an initial hand auger investigation to define the extent of the area affected. Based on the results of the initial samples, it was determined that a full-scale soil and groundwater investigation was warranted. This report summarizes the initial hand auger investigation, the ensuing soil and groundwater investigation using hollow stem auger drilling methods, the potential risk to human health and the surrounding environment, and corrective action performed at the site.

2.0 BACKGROUND

2.1 Site Description/Operational History

The HELSTF TSA POL Station is located approximately 20 miles (mi) [32 kilometers (km)] east-northeast of the White Sands Main Post Headquarters on U.S. Highway 70 in Otero County (Figure 1-1). The fuel release occurred in Section 35.1.2.4 of Township 18 South, Range 6 East. The Universal Transverse Mercator coordinate for the project site is 3609642.8 Northing and 377867.5 Easting. HELSTF is a secured area and the TSA is approximately 300 yards (yd) [275 meters (m)] beyond the 24-hr guard checkpoint adjacent to U.S. Highway 70. Site photographs are in Appendix B.

The pump island at the TSA includes one dispenser supplied by the 3,000 gallon (gal) [11,350 liter (L)] capacity aboveground storage tank (AST), which is located approximately 35 feet (ft) (10 m) west of the dispenser island (Figure 1-2). The single AST serving the facility is mounted within a concrete secondary containment structure and stores unleaded gasoline for motor vehicle fueling. Leaks were not observed from the aboveground appurtenances and the release was not visually detected. Initial reports that 750 gal (2,840 L) of fuel were missing from inventory suggested that a release had occurred in the underground supply lines to the dispenser. A detailed audit of the fuel deliveries versus consumption fixed the final loss estimate at 1,485 gal (5,620 L) prior to shutdown of the system in March 2000.

2.2 Discussion of Geologic and Hydrogeologic Setting

The following presents an overview of the regional geologic and hydrogeologic setting at and surrounding the HELSTF TSA. Refer to Section 5.1 for a discussion of the local geologic and hydrogeologic findings from the investigation.

2.2.1 Regional Geology

White Sands Missile Range lies within the Mexican Highland Section of the Basin and Range Province, and is characterized by a series of tilted fault blocks forming longitudinal, asymmetric ridges or mountains and broad intervening basins. Figure 2-1 presents a generalized east-west cross section of the Tularosa Basin.

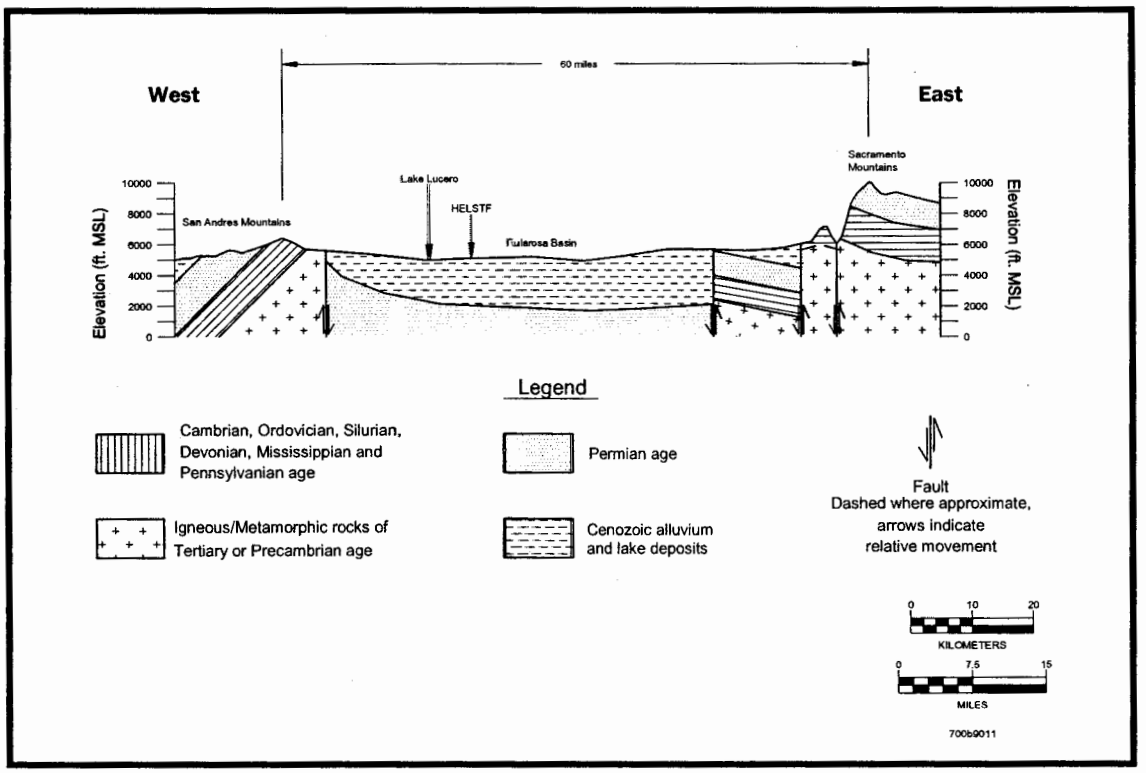

Figure 2-1. Generalized East-West Cross Section of the Southern Part of the Tularosa Basin, North of Highway 70.

The major portion of White Sands lies within the Tularosa Basin, which is bounded on the west by the Organ, San Augustin, and San Andres Mountains (Figure 1-1). The eastern limit of the Tularosa Basin lies outside of the range, and is formed from north to south by the Jarilla Mountains, Sierra Blanca, and Sacramento Mountains. The Tularosa Basin contains thick sequences of Tertiary and Quaternary age alluvial and bolson-fill deposits. These sediments, more than 5,000 ft (1,524 m) thick in some areas, consist mainly of silt, sand, gypsum, and clay weathered from the surrounding mountain ranges. The average elevation of the basin floor is 4,000 ft (1,219 m) above mean sea level and surface features consist of flat sandy areas, sand dunes, basalt flows, and playas (dry lakebeds). Elevations of local mountains range from 5,700 ft (1,737.36 m) at St. Augustin Pass to more than 9,000 ft (2,743.2 m) at Salinas Peak, the tallest peak at White Sands.

The nature of the bolson-fill deposits varies both laterally and vertically throughout White Sands. Coarse-grained, poorly sorted sediments deposited near mountain fronts grade into fine-grained, well-sorted sediments towards the center of the basin (Kelly, 1973). Sediments further from the mountain fronts also contain a greater percentage of clay and gypsum.

The Tularosa Basin is actively subsiding relative to the north-south trending normal faults (Figure 2-1) that produce mountain ranges on either side of the basin. Erosion of the mountain fronts transports clastic sediment into the basin where it is deposited. As subsidence continues, the sediments may be re-worked by wind and water, but are ultimately buried under sediments produced by younger depositional events. The HELSTF facility is located near the depositional axis of the basin, just south of the eolian gypsum dunes of the White Sands National Monument. As a result of the central basin setting and the proximity to the source of the gypsum sand (Lake Lucero), the subsurface geology at HELSTF consists of unconsolidated, fine-grained clasitic sediments interspersed with gypsum and minor selenite redeposited from solution.

Seager et. al. (1987) describe surficial deposits at HELSTF as eolian dunes composed of gypsum sands with well-developed gypsum crusts. Basabilvazo et. al. (1994) characterized the upper 15-20 ft (4.5-6.1 m) of the soil profile as varved gypsiferous sands and silts underlain by lacustrine basin-fill sediments (alternating layers of sands, silts, and clays). The lacustrine deposits are locally discontinuous making correlation of individual units difficult. (MEVATEC-Radian, 2000)

2.2.2 Regional Hydrology

Very little surface water resides at White Sands due to the low annual precipitation, high evaporation rate, and the permeability of typical soils. Playas within the basin may contain standing water during the summer monsoon season when thunderstorm activity is most common. Stream channels that drain the surrounding mountains usually contain water only following a heavy precipitation event. The Tularosa Basin is a closed basin, meaning that surface water drainage is internal. Much of White Sands drains toward Lake Lucero, a large playa along the western side of the basin at the depositional center, approximately 6 mi (9.7 km) northwest of the HELSTF TSA.

Groundwater at or near the basin center is typified by total dissolved solids (TDS) content of generally more than 10,000 milligrams per liter (mg/L). The majority of the groundwater recharge to the southern bolsons near HELSTF occurs through the coarse, unconsolidated alluvial fan deposits along the eastern flanks of the Organ and San Andres Mountains. Groundwater, which

travels east through fractured bedrock and unconsolidated alluvium, becomes progressively more mineralized downgradient from the recharge areas toward the interior of the basin. This is attributed to the slow migration rate of groundwater, and the presence of readily soluble minerals in the bolson sediments.

3.0 INITIAL SITE ASSESSMENT

3.1 Hand Auger Investigation

On 17 March 2000, three initial hand auger borings were completed at the TSA POL Station to determine the location and severity of the unleaded gasoline release. Figure 3-1 shows the locations of all hand auger borings completed at the site. Hand auger borings were completed at the following locations:

- Beneath the fuel pump to a depth of approximately 9 ft (2.7 m) below ground surface (bgs) at a 45-degree angle. The boring was initially named as "TSA-Pump", and renamed as "HA-01". Two soil samples were collected: one at 3'-2" bgs and a second at 9'-0" bgs.
- Beneath the product lines on the north side of the concrete pad to a depth of approximately 9 ft (2.7 m) bgs. The boring was initially named as "TSA-Line", and renamed as "HA-02". Two soil samples were collected: one at 6'-6" bgs and a second at 9'-0" bgs.
- Approximately 6 ft (1.8 m) east of the fuel pump where the concrete pad and surrounding blacktop meet to a depth of approximately 9.5 ft (2.9 m) bgs. The boring was initially named as "TSA-Blacktop", and renamed as "HA-03". Two soil samples were collected: one at 4'-0" bgs and a second at 9'-6" bgs.

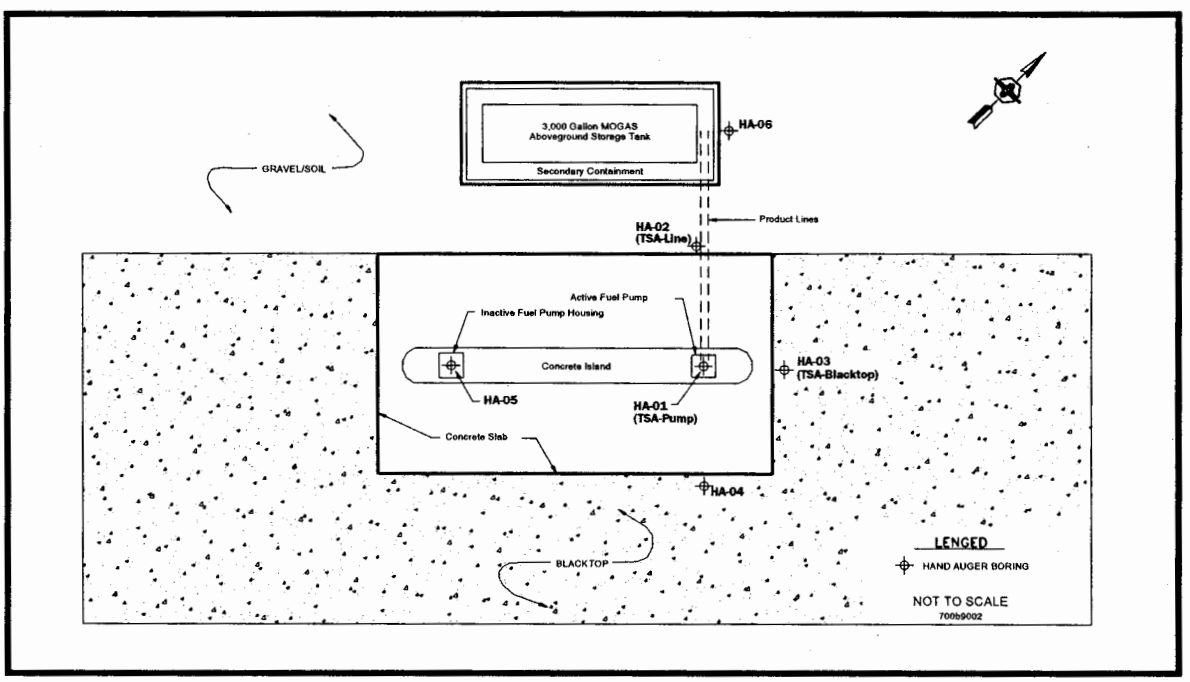

Figure 3-1. Locations of Hand Auger Borings (HA-01 thru HA-06).

Soil types encountered during the hand auger investigation were generally gypsum sand dune with intermittent thin layers of clayey silts. Each depth-specific soil sample were submitted to Trace Analysis Inc. (El Paso, TX) for total petroleum hydrocarbon (TPH) analysis by U.S. Environmental Protection Agency (EPA) method 8015-modified for Gasoline Range Only (GRO), and benzene, toluene, ethylbenzene, xylene plus methyl tert-butyl ether (BTEX + MTBE) analysis by EPA method 8021B. Analytical results are summarized in Section 3.2 and copies of the results are in Appendix C. Field activities were documented using digital photography. Copies of the photographs are in Appendix B.

On 24 March 2000, three additional qualitative hand auger borings were completed to approximately determine the extent of contamination. A photo-ionization detector (PID) was used to screen for volatile components during completion of the additional hand auger borings. The locations of the additional hand auger borings are shown in Figure 3-1. Hand auger borings were completed in the following locations:

- At the south edge of the concrete pad where the concrete pad and blacktop meet to a depth of 9 ft (2.7 m) bgs. The boring was identified as "HA-04".
- Beneath the removed/inactive fuel pump to a depth of 18 ft (5.4 m) bgs. The boring was identified as "HA-05".
- At the aboveground storage tank adjacent to where the product lines enter the subsurface to a depth of 9.5 ft (2.9 m) bgs. The boring was identified as "HA-06".

Table 3-1 summarizes the qualitative analysis of hand auger borings HA-04, HA-05, and HA-06.

Table 3-1.
Qualitative Summary of Hand Auger Borings HA-04, HA-05, and HA-06

Hand Auger Boring	Depth Investigated	Comment
HA-04	10'-0" bgs	Contamination was visually detected and confirmed by the PID at approximately 9'-0" bgs. The auger was advanced to 10'-0", where headspace analysis using a PID indicated hydrocarbon levels at approximately 100 parts per million (ppm) at 10'-0" bgs.
HA-05	18'-0" bgs	Contamination was evident from approximately 2'-0" bgs to the maximum depth investigated. Headspace analysis using a PID indicated hydrocarbon contamination at approximately 250 ppm at 17'-0" bgs.
HA-06	9'-6" bgs	Contamination was not detected by the PID throughout the length of the hand auger boring.

3.2 Analytical Results

Table 3-2 summarizes the analytical results for the soil samples collected from hand auger borings HA-01, HA-02, and HA-03. The laboratory data reports appear in Appendix C.

Table 3-2.
Soil Concentrations Determined By 8015 (GRO) And 8021 B.

Analyte of Concern	Analytical Results					
	HA-01 (a.k.a. TSA-Pump)		HA-02 (a.k.a. TSA-Line)		HA-03 (a.k.a. TSA-Blacktop)	
	3'-2" bgs	8.5'-9.0' bgs	6'-6" bgs	8.5'-9.0' bgs	3.5'-4.0' bgs	9.0'-9.5' bgs
TPH GRO	15,000 mg/kg	29,000 mg/kg	<50 mg/kg	<50 mg/kg	<50 mg/kg	23,000 mg/kg
Benzene	320 mg/kg	280 mg/kg	52 µg/kg	<50 µg/kg	150 µg/kg	210 mg/kg
Toluene	1,800 mg/kg	1,600 mg/kg	120 µg/kg	58 µg/kg	260 µg/kg	1,200 mg/kg
Ethylbenzene	570 mg/kg	560 mg/kg	<50 µg/kg	<50 µg/kg	<50 µg/kg	340 mg/kg
Total Xylenes	1,700 mg/kg	1,700 mg/kg	<50 µg/kg	<50 µg/kg	<50 µg/kg	990 mg/kg
MTBE (total)	75 mg/kg	34 mg/kg	<50 µg/kg	<50 µg/kg	54 µg/kg	25 mg/kg

Notes: mg/kg – milligrams per kilogram (parts per million)
µg/kg – micrograms per kilogram (parts per billion)

3.3 Initial Site Assessment Conclusion

Based on the analytical and qualitative results obtained from the initial hand auger borings, it was confirmed that an unleaded gasoline release occurred at the HELSTF TSA POL Station. It was estimated that the plume's radius was approximately 16-18 ft (4.9-5.5 m) horizontally and vertical extent exceeded 18 ft (5.5 m) bgs. Refer to Appendix C for basis of conclusion. White Sands immediately initiated a drilling investigation to further determine the horizontal and vertical extent of contamination.

4.0 SOIL AND PRELIMINARY GROUNDWATER INVESTIGATION

Assessment of the extent of contamination at the HELSTF TSA POL station was determined through soil borings drilled with a hollow-stem auger drilling methods. The investigation procedures and resulting data are presented in this section.

4.1 Real Property Planning Board Action and Record of Environmental Consideration

All necessary support documentation required to complete the Real Property Planning Board Action (RPPBA) and Record of Environmental Consideration (REC) for the proposed action was submitted and approved by the proper White Sands directorates.

4.2 Utility Clearances

A utility clearance was performed prior to the start of drilling activities. Utility clearances included gas, water/sewer, electric, communication, and fire. The locations of underground electric and water utility lines are shown with a copy of the utility clearance attached as Appendix D.

4.3 Site Safety

A comprehensive Site Specific Health and Safety Plan for all field activities was prepared and distributed to all field personnel. The health and safety plan is included as Appendix E. Personal protective equipment (PPE) for this project consisted of Level-D, which consisted of a hard hat, steel-toed boots, safety glasses, hearing protection, and leather/latex gloves. In areas where significant contamination was identified, the site safety officer upgraded the PPE to include Tyvek. A field PID was used to monitor the aromatic hydrocarbons in the breathing zone at the drill rig.

4.4 Drilling and Soil Sampling

Tierra Drilling and Environmental Services, Inc. (El Paso, TX) was sub-contracted to complete the required drilling activities for this project. A total of nine investigative soil borings were drilled within and surrounding the release site. The location of each soil boring is shown in Figure 4-1 (Note: Hand auger borings are not shown on Figure 4-1). All borings were drilled using a CME 750 continuous-flight, hollow-stem auger drill rig with 4.25 inch (in) [10.8-centimeter (cm)] inside diameter auger flights. Soil samples were collected using a 2.5 in (6.4 cm) outside diameter, 2.5 ft (0.76 m) long split-barrel sampler. Prior to the start of sampling, the NMED Ground Water Quality Bureau approved a request by White Sands to use brass rings with Teflon lined end caps in a split-spoon sampler to obtain soil samples. Appendix A includes a copy of the approval letter from the NMED Ground Water Quality Bureau.

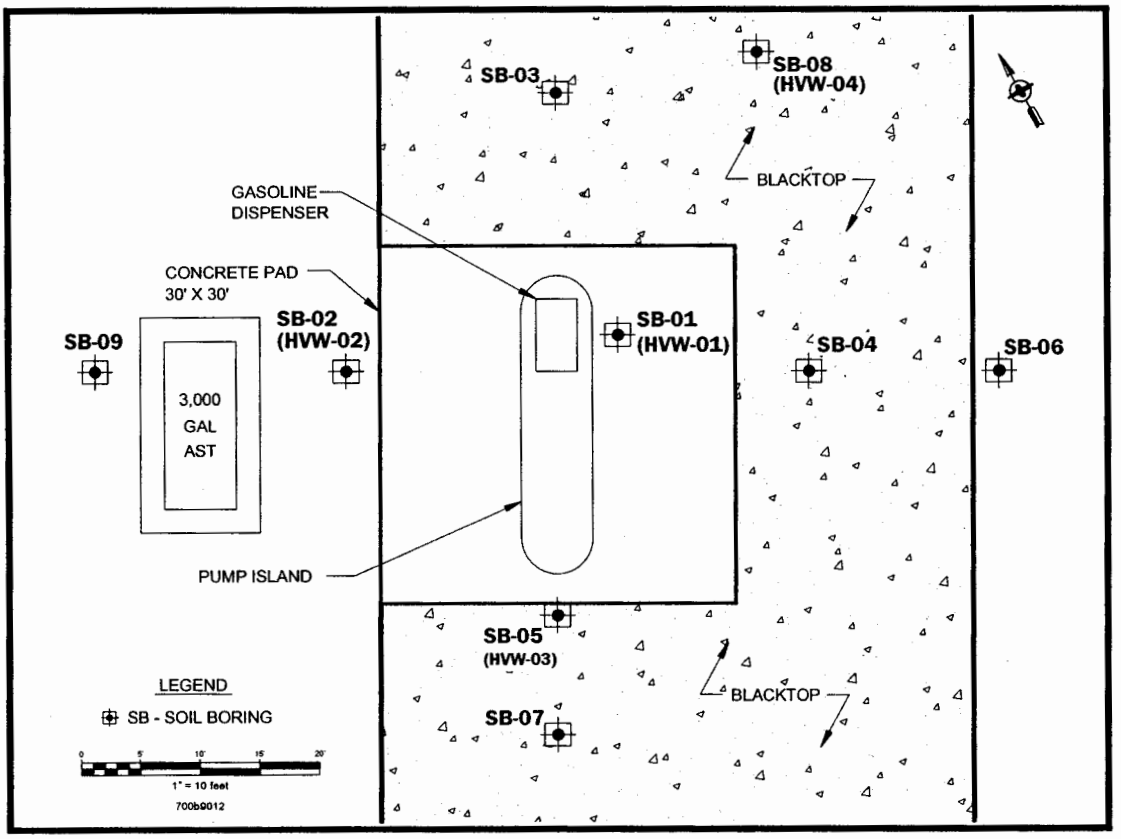

Figure 4-1. Locations of Soil Borings Installed with Hollow-Stem Auger, May 2000. (Note: Hand Auger borings are not shown.)

All investigative soil borings were completed to a depth of 40 ft (12.2 m) bgs with the exception of soil borings SB01 and SB08 which were completed to a depth of 42 ft (12.8 m) bgs and 38 ft (11.6 m) bgs respectively. The final depths of each boring varied as a result of changes in lithology. Soil samples were collected from each boring at 5.0 ft (1.5 m) intervals for chemical analysis. All soil samples were sent to Trace Analysis, Inc. (El Paso, TX) for analysis by EPA Method 8015-modified for GRO to determine TPH concentration and EPA Method 8021B to determine BTEX and MTBE concentrations. Approximately 10 percent of the soil samples were split and sent to PDP Analytical Services (The Woodlands, TX) for quality assurance (QA) analysis. Analytical results are presented in Section 5.0 of this report. Soil samples were identified as follows:

26030-SBxx-(yy.y-zz.z)

where: 26030 - HELSTF TSA POL Facility Number
SB - soil boring; or
xx - number of boring/well (i.e. 01, 02, etc..)
(yy.y-zz.z) - collection depth (feet)

QA - modifier added to all samples sent to the QA lab

During the investigation, White Sands determined that interim remedial action using soil vapor extraction may be required. In anticipation of this action, four soil borings (SB-01, SB-02, SB-05, and SB-08) were completed as vapor recovery wells. Upon completion, the vapor wells were named HVW-01, HVW-02, HVW-03, and HVW-04, respectively for "HELSTF Vapor Well". Table 4-1 summarizes vapor well construction data.

Table 4-1.
Vapor Well Construction Data.

Well Number	Well Segment Intervals (feet, bgs)				
	Well Casing	Screen	5 Percent Bentonite Cement	Bentonite Seal	Filter Pack
HVW-01	0-15	15-20	5-10	0-5	10-20
HVW-02	0-31	31-36	25-30	0-25	30-36
HVW-03	0-31	31-36	25-30	0-25	30-36
HVW-04	0-31	31-36	21-26	0-21	26-36

HVW-01 was screened above the center of the plume to minimize potential migration pathways between geologic strata. HVW-02, HVW-03, and HVW-04 were placed along the suspected perimeter of the plume and screened between 31 and 36 ft (9.4-11.0 m) bgs, across the shallow perched water-bearing zone (see Section 5.1). However, only HVW-04 contains water, while HVW-02 and HVW-03 remain dry.

4.5 Well Installation and Groundwater Sampling

During the investigation, two water-bearing zones were encountered. The first zone is perched in nature and located approximately 34 ft (10.4 m) bgs. The second water-bearing zone encountered during the investigation is the regional groundwater table, which was determined to be approximately 90 ft (27.4 m) bgs. Refer to Section 5.0 for further discussion on chemical and water quality data of the two-water bearing zones encountered during the investigation.

In discussions with White Sands, the Ground Water Quality Bureau of NMED determined that groundwater resources might be threatened by the gasoline release at the HELSTF TSA. Therefore, the site investigation included a local determination of the depth to water, water quality, and direction of flow for the regional aquifer. These data were acquired through the installation of three wells (one upgradient and two downgradient) that monitor the regional aquifer.

The depth to water in conjunction with lithological information assists investigators in determining the potential for release to the aquifer. Changes in water quality may be indicative of impacts by local contamination. The groundwater flow direction assists in determining which wells are most likely to be impacted by local contamination.

4.5.1 Regional Groundwater Monitoring Wells

One up-gradient and two downgradient groundwater monitor wells were installed to: 1) determine the groundwater quality at the site and, 2) monitor the potential migration of gasoline via the regional aquifer if contaminants are detected in groundwater. The locations of the three regional water table wells relative to the source area are shown in Figure 4-2 on following page. During the investigation, the wells were originally identified as MW-01, MW-02, and MW-03, however, following the investigation the wells were renamed as "HELSTF Monitoring Wells" HMW-48, HMW-49, and HMW-50, respectively, to maintain conformity with existing groundwater monitoring wells at HELSTF.

Each monitoring well was drilled in the same fashion as previously described. The well risers consisted of new, 4-in (10.2-cm) diameter PVC (ASTM-D 1785 Schedule 40). Threaded, flush-joint couplings joined screen and riser sections. Solvent glues, cements, or adhesive tapes were not used to join sections of the riser or screen. A 0.010-in (0.025-cm) slot size screen constructed of Schedule 40 PVC was positioned such that 5 ft (1.5 m) was located above the potentiometric surface and 15 ft (4.6 m) was located below the potentiometric surface. A 5 ft (1.5 m) length sump, with end cap, was constructed below the screen. Filter pack material, consisting of clean, washed, well graded, rounded to sub-rounded 20/40 silica sand, was placed from the base of the boring to approximately 5 ft (1.5 m) above the screen. Four feet (1.2 m) of hydrated bentonite was placed above the filter pack, and the remaining hole was filled with a 5 percent bentonite-cement mix. Table 4-2 lists pertinent construction data for each monitoring well. Copies of each monitoring well construction diagram are found in Appendix F.

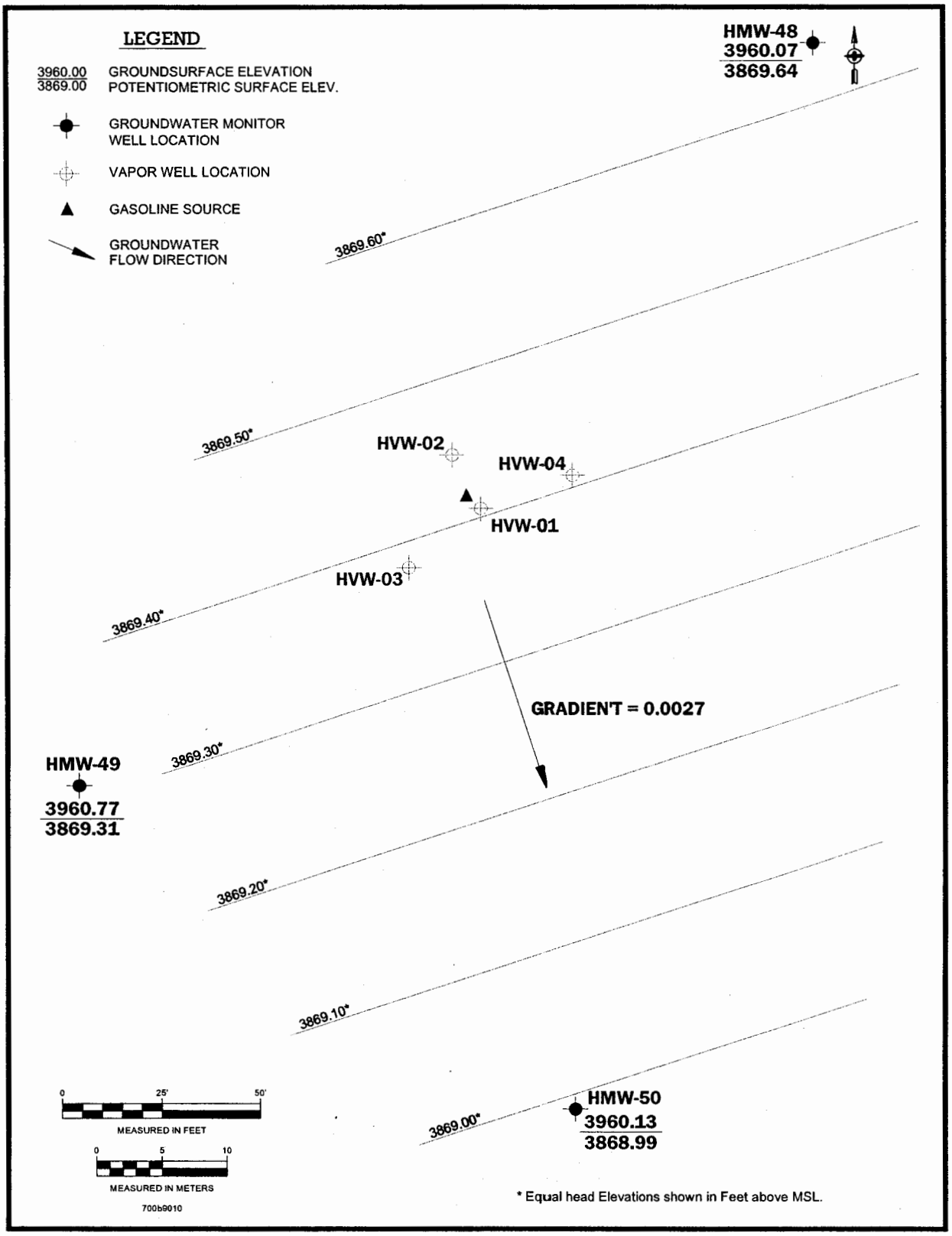

Figure 4-2. Location of Groundwater & Vapor Recovery Wells and Potentiometric Surface of the Regional Aquifer below HELSTF TSA, October 2000.

Table 4-2.
Regional Aquifer Monitoring Well Construction Data.

Well Number	Well Segment Intervals (feet, bgs)					
	Well Casing	Screen	Sump with end cap	5 Percent Bentonite Cement	Bentonite Seal	Filter Pack
HMW-48	0-85	85-105	105-110	0-75	75-80	80-110
HMW-49	0-85	85-105	105-110	0-75	75-80	80-110
HMW-50	0-85	85-105	105-110	0-75	75-80	80-110

A protective aluminum casing with a hinged, locking aluminum cap was installed around each well and embedded into the Portland cement. A 4-ft x 4-ft x 1-ft (1.2-m x 1.2-m x 0.3-m) thick concrete pad, with protective bollards, was constructed around the protective casing at final ground elevation. A survey marker was permanently placed in each pad. The horizontal and vertical locations of each well were surveyed by Moy Surveyors of Las Cruces to within one one-hundredth of a foot relative to permanent USGS benchmarks in the vicinity. Survey data is found in Appendix G. Following surface completion, each well was purged until water quality parameters stabilized. Field personnel recorded water quality parameters (temperature, pH, and conductivity) at 20 gal (76 L) intervals. Purge water from each well was containerized in 55 gal (208 L) drums for characterization and disposal.

4.5.2 Groundwater Flow Direction and Gradient

The three monitoring wells screened across the regional water table (see Table 4-2) were utilized to determine the attitude of the planar surface defined by the three depth to water measurements to an accuracy of one one-hundredth of a foot. The static water levels measured in each well following completion were approximately 90 ft (27.4 m) bgs. The aquifer is apparently unconfined because the static water levels in the wells stabilized at approximately the same elevation where saturation was encountered during well construction.

The potentiometric surface was measured to an accuracy of one one-hundredth of a foot using an electronic water-level indicator in each well on October 6, 2000. Decontamination procedures were observed between measurements. The wells were plotted on a map and the slope of the water table was determined using a trigonometric method under the assumption that three points define a plane (Heath, 1982).

As shown in Figure 4-2, groundwater flow direction in the regional aquifer was toward the southeast at the HELSTF TSA. This result agrees with studies of the regional aquifer on a broader scale incorporating measurements of more widely spaced wells (MEVATEC, 2000). Also shown in Figure 4-2, the projected groundwater flowpath through the contaminant source area at the dispenser pump island intersects monitor well HMW-50 (formerly MW-03). Gradient determined using the relative water levels in the three monitor wells was 0.0027 (dimensionless). Groundwater quality of samples submitted for analysis is discussed in Section 5.2.2.

4.6 Lithologic Soil Sampling

Lithologic soil samples were collected from continuous core recovered from monitor well HMW-48 (formerly MW-01) for inclusion in the White Sands Lithologic Library. The lithology of soil boring HMW-48 was recorded on a lithologic log sheet, a copy of which appears in Appendix H.

4.7 Investigation Derived Waste

Investigation-derived waste (IDW) was generated during the soil boring and well development phases of the site characterization, as well as during sampling events. Soil was containerized on-site in roll-off boxes. Water was containerized in drums. Both were sampled for analysis by EPA-approved methods for comparison with state and federal waste disposal guidelines.

4.7.1 Soil Cuttings

Soil recovered from soil borings and well installation was staged in rented roll-off boxes, double-lined with 6-mil plastic sheeting. The soil IDW was segregated by source; soil-boring waste was contained in a single roll-off box while well drilling waste was contained to two separate boxes. The reason for the segregation was that the wells were drilled through clean soil whereas the borings were drilled through contaminated soil. Following a period of storage the IDW soil was composited to determine what disposal options were available. The composite sample was considered representative of the waste since the material was relatively homogeneous in nature. This method has been approved by the EPA for compliance with waste determination under RCRA. The laboratory analysis of the composite soil samples (provided in Appendix I) indicated that the soil was within applicable limits for disposal at the Corralitos Regional Landfill, west of Las Cruces.

4.7.2 Decontamination Water

Drill rig decontamination rinsate was collected in drums. Following the site investigation, composite samples of the rinsate were analyzed for potential contaminants. Disposal decisions for decontamination water are made by White Sands based on the analytical results (provided in Appendix I).

5.0 RESULTS OF SOIL AND PRELIMINARY GROUNDWATER INVESTIGATION

5.1 Subsurface Geology and Hydrogeology

The site subsurface investigation included drilling three wells around the source area to a maximum total depth of 115 ft (35 m) (see Section 4.4). Additionally, shallower borings were drilled in the source area. All drilling was done using hollow-stem auger and the boreholes were logged on-site. Continuous core was recovered during the drilling of the up-gradient monitor well, HMW-48. The lithologic log (see Appendix H) developed from the core is indicative of the geologic materials across the site.

Sediments are predominantly clayey silts interspersed with sandier intervals. Several thin sand layers punctuate the stratigraphic column and may represent sediment deposition by meandering streams or, in some cases, eolian deposition. Thicker, clay-rich intervals separating the sandy layers probably represent sedimentation in shallow, ephemeral pools formed after stream avulsion or precipitation events in the central basin setting.

A thin sand layer encountered at approximately 23 ft (7.0 m) bgs is of particular interest because it may represent the preferential pathway that allowed the lateral spreading of gasoline seen at this depth in Figures 5-2 and 5-3. At soil boring SB-08, which was subsequently completed as vapor extraction well HVW-04, the sand layer was saturated with water. Because of the proximity of HVW-04 to potable water supply infrastructure, it is possible that a leaking water main could be causing the localized perched saturation. The high TDS of water from HVW-04, as shown in Table 5-3, could be the result of mineral dissolution within the subsurface.

During the investigation, two water bearing zones were encountered. The first zone is perched in nature, located approximately 34 ft (10.4 m) bgs, and was determined to be non-potable due to TDS concentrations of 26,000 mg/L. The shallow perched water bearing zone may be the result of wastewater infiltration from a septic field located approximately 800 ft (243 m) east of the POL station. The second water bearing zone encountered during the investigation is the regional groundwater table, which was determined to be approximately 90 ft (27.4 m) bgs. The regional aquifer is in unconsolidated silty sands and moderately-sorted sand layers. The regional groundwater was also determined to be non-potable, with TDS concentrations in excess of 8,000 mg/L. However, since the TDS concentration is less than 10,000 mg/L, the regional groundwater does fall under the protection of the New Mexico WQCC Regulations (20 NMAC 6.2, Subpart 3103).

5.2 Analytical Results

Soil samples obtained during the boring program and groundwater from the three, newly installed monitor wells was analyzed by a certified laboratory. Soil matrix was analyzed for total petroleum hydrocarbons using modified EPA method 8015 and BTEX + MTBE by EPA method 8021B. Water matrix was analyzed for BTEX + MTBE by EPA method 8021B, TPH by EPA method 8015 modified GRO, dissolved metals by methods SM 3111B, SW 6010B, and E 245.1. Dissolved anions and cations were determined by methods SM 4500, SM 2320B, SM 2510B, EPA 300.0, SM 2540C, and physical characteristics were measured in the laboratory.

5.2.1 Soil Matrix Results

In an effort to define the maximum lateral and vertical extent of gasoline contamination from the release point, soil borings were stepped-out and extended until no detection of vapor was evident in soil headspace using the PID. The locations of soil borings are shown relative to the source area in Figure 5-1. Soil was collected during the drilling process using a split-spoon sample retrieval barrel, as described in Section 4.2. Discreet samples were collected at 5 ft (1.5 m) intervals beginning at 2 ft (0.6 m) bgs.

The samples were analyzed by the methods listed in Section 5.1, above. The analytical data is provided in Appendix J. The results of the soil analyses represent conditions during the snapshot of time from May 2 and 3, 2000. The TPH GRO results were plotted on cross-sections in Figures 5-1, 5-2, and 5-3 to closely approximate the extent of contaminated soil at the time of the soil boring sampling.

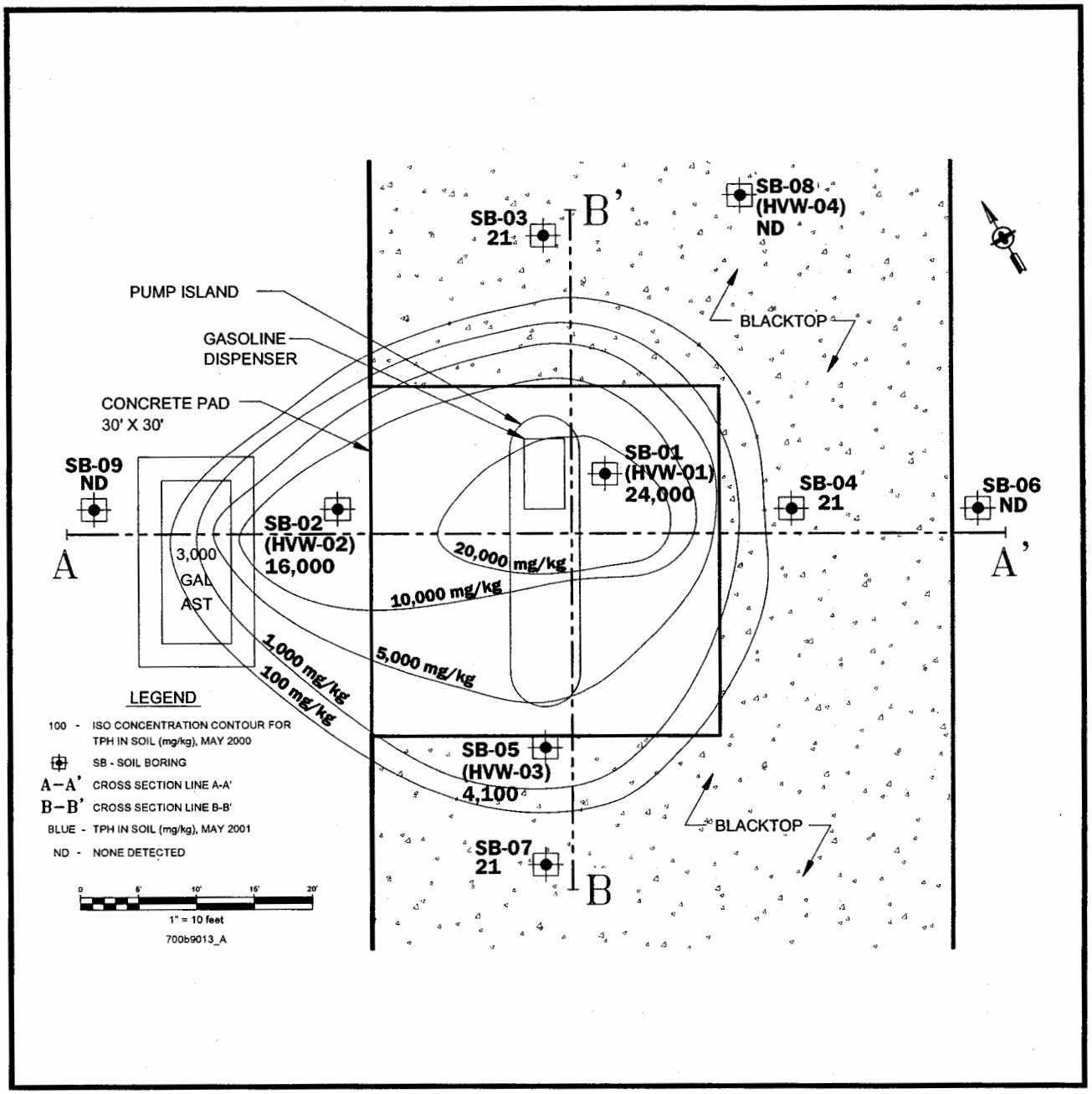

Figure 5-1.
Locations of Soil Borings Installed with Hollow-Stem Auger, May 2000.
(Segments A-A' and B-B' Correspond to Cross-Sections in Figures 5-2 and 5-3, respectively.)

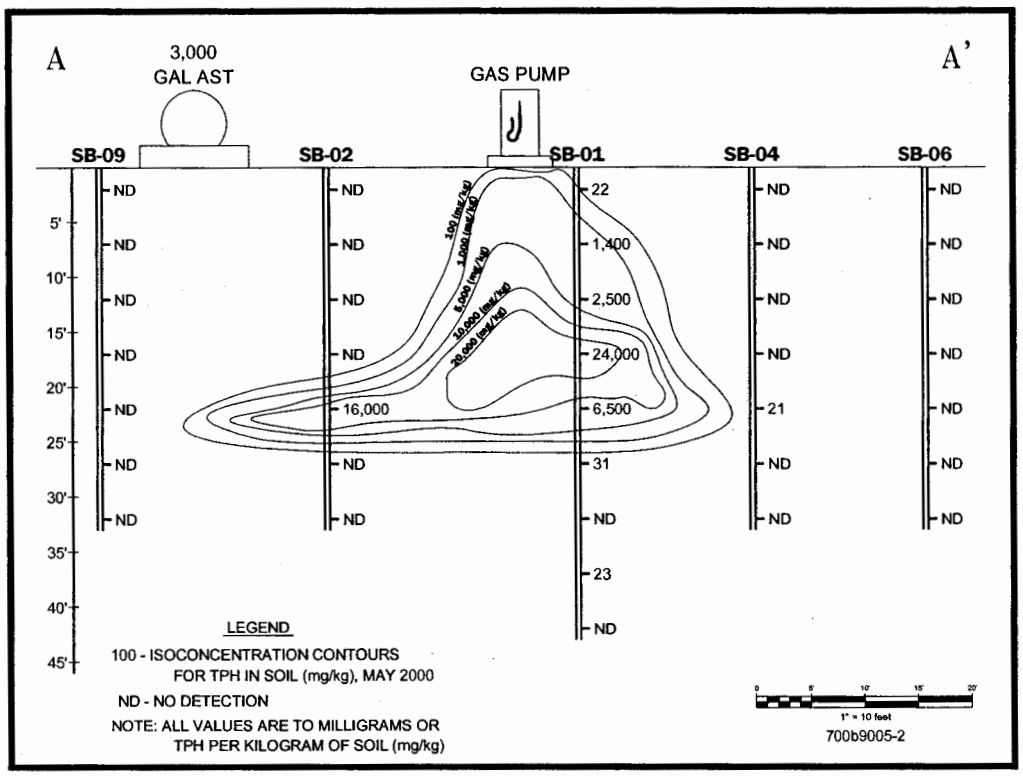

Figure 5-2.
Extent of Soil Contamination Along Section A-A'. Section Line is shown in Figure 5-1.

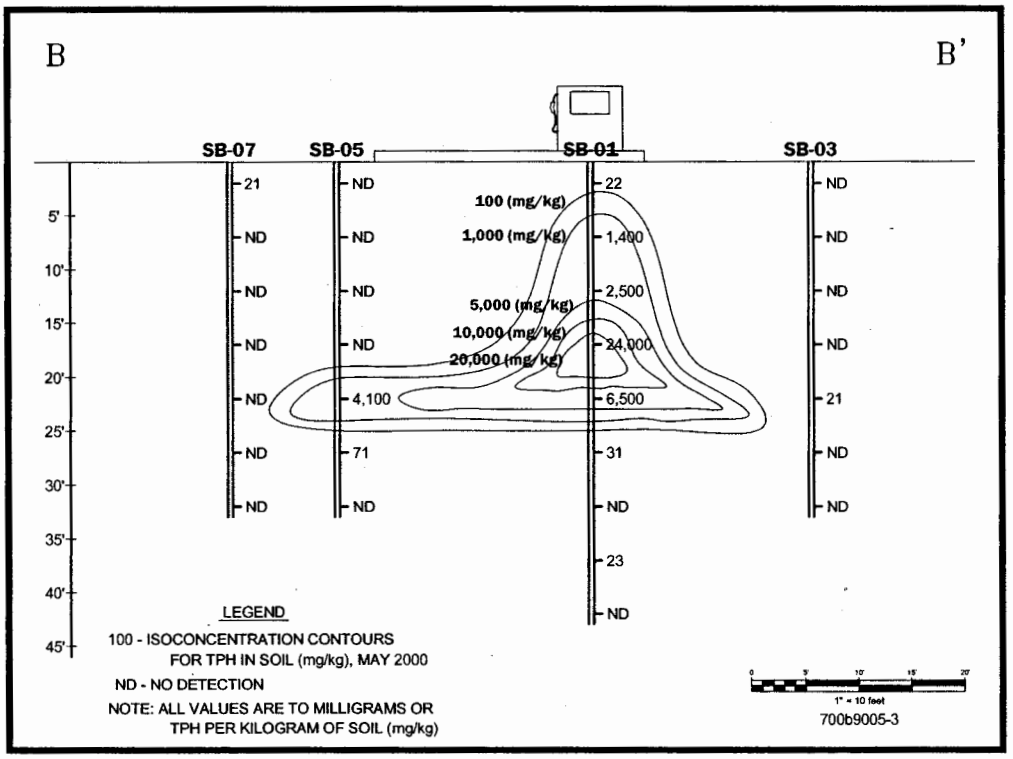

Figure 5-3.
Extent of Soil Contamination Along Section B-B'. Section Line is shown in Figure 5-1.

5.2.2 Water Matrix Results

Groundwater samples were collected from each of the three wells monitoring the regional aquifer and from vapor well HVW-04 during early June 2000. Three well volumes were removed and conductivity, temperature, and turbidity stabilized prior to sample collection at each well. The samples were submitted to Trace Analysis Inc. (El Paso, TX) for analysis. Quality Assurance splits were submitted to PDP Analytical Services (The Woodlands, TX). The analytical results for the primary and QA laboratories are attached in Appendix J. Table 5-1 summarizes the results of gasoline contaminant concentrations in the regional groundwater in the vicinity of POL dispenser island. No indicators of gasoline were evident in the regional groundwater, as shown by the non-detections for BTEX, MTBE, and TPH.

Table 5-1.
Regional Aquifer Sample Results.

Volatile Gasoline Compounds (µg/L) from Regional Groundwater Wells at HELSTF TSA sampled on June 1, 2000				
Organic Compounds	**WQCC Standard**	**HMW-48**	**HMW-49**	**HMW-50**
Benzene	10.0	<1.0	<1.0	<1.0
Toluene	750.0	<1.0	<1.0	<1.0
Ethylbenzene	750.0	<1.0	<1.0	<1.0
Total Xylenes	620.0	<1.0	<1.0	<1.0
MTBE	NE	<2.0	<2.0	<2.0
TPH gas range	NE	<1.0	<1.0	<1.0

Note: WQCC - New Mexico Water Quality Control Commission Standard
NE – not evaluated

Although not detected in the regional aquifer, components of gasoline were detected in the shallow, perched groundwater collected from HVW-04 during the June 2000 groundwater-sampling event. The areal extent of the perched water is limited because vapor wells HVW-02 and HVW-03 (see Figure 4-1) were constructed with screen intervals identical to that of HVW-04 and these wells did not intersect groundwater. Although the well was designed for potential use as vapor extraction well, groundwater did enter the HVW-04 well. Prior to sampling, HVW-04 was bailed dry and allowed to recharge overnight due to slow recovery. The sample of perched water was analyzed along with the regional aquifer samples. In addition to those laboratory methods, the HVW-04 sample was analyzed for volatile and semi-volatile organic compounds by SW-846 methods 8260 and 8270. Table 5-2 plots the organic compounds detected by the various analytical methods run on the HVW-04 sample. Quantified results that exceed WQCC standards are shown in bold.

Table 5-2. Perched Aquifer Contaminant Concentrations from HVW-04 during the June 2000 Sampling Event.

Compound	Units	WQCC[a] Standard	SW-846 Series			
			8260	8270	8021	8015 mod.
Benzene	µg/L	10.0	**1,600**	NA	**1,200**	NA
Toluene	µg/L	750.0	**1,570**	NA	120	NA
Ethylbenzene	µg/L	750.0	120	NA	88	NA
Total Xylenes	µg/L	620.0	480	NA	420	NA
MTBE	µg/L	NE	NA	NA	72	NA
Phenol	µg/L	5.0	NA	0.051	NA	NA
TPH-GRO	mg/L	NE	NA	NA	NA	8.8

Note: WQCC – New Mexico Water Quality Control Commission Standard
NE – not evaluated
NA – not analyzed

Groundwater sampling of the regional aquifer and the perched water horizon produced chemical data that characterizes the water (Table 5-3 on the following page). Groundwater in the regional aquifer is sodium-sulfate water. On a per weight basis sulfate comprises more that 50-percent of the TDS, which ranged between 8,200 and 8,550 mg/L in the samples collected from the regional groundwater monitor wells. Calcium and magnesium cations are present in significant concentrations along with sodium to balance the major anions, which also include chloride, nitrate and bicarbonate in addition to the sulfate. Ion balances for the perched water in HVW-04 occur in proportion to the regional aquifer samples. However, the perched water is significantly concentrated in dissolved ionic species relative to the regional aquifer. Indicator parameters chloride and nitrate are highly concentrated (6,400 and 88 mg/L, respectively) in the perched aquifer, consistent with the release of domestic wastewater. Other mechanisms for the concentration of natural waters cannot be ruled out based on the available data set.

5.3 Estimated Extent of Contamination

Gasoline accidentally released from the dispenser island at the HELSTF TSA migrated into the porous subsurface sediments. The vertical and lateral extent of migration was determined through the soil-boring program conducted in early May 2000. As shown by the isoconcentration contours in Figures 5-1, 5-2 and 5-3, gasoline was detected in a smear zone directly beneath the source area. Maximum concentrations were encountered at a depth of 17 ft (5.18 m).

Lateral migration was increased at a depth between 20-25 ft (6.1-7.6 m). Gasoline found a preferential pathway in a more conductive, permeable sand layer that was encountered across the study area. Lateral migration at this level evidently reduced the rate of vertical migration into the more clay-rich sediments below. Shut-off of the source at nearly 1,500 gal (5,675 L) may have combined with the surface tension of the fluid to arrest the contaminant migration in the configuration encountered during the soil boring program (Figures 5-1, 5-2, and 5-3).

Table 5-3. Concentrations of Dissolved Chemical Species in Groundwater at the

June 2000 Sampling Event.

Constituent	unit	WQCC Standard	HMW-48	HMW-49	HMW-50	HMW-50 QA	HVW-04
TDS	mg/L	10,000	8,200	8,300	8,500	8,550	**26,000**
Bicarbonate	mg/L	NE	<5.0	130	130	99	380
Carbonate	mg/L	NE	<5.0	<5.0	<5.0	<1.4	<5.0
Sulfate	mg/L	600.0	**4,700**	**4,900**	**4,600**	**6,510**	**15,000**
Chloride	mg/L	250.0	**810**	**870**	**840**	**1,360**	**6,400**
Fluoride	mg/L	1.6	0.24	0.49	0.26	<1.0	<2.0
Nitrate-N	mg/L	10.0	**12**	**13**	**12**	**12**	**88**
Ammonia-N	mg/L	NE	<2.0	<2.0	<2.0	na	<2.0
Bromide	mg/L	NE	<2.0	<2.0	<2.0	<0.2	<20.0
Calcium	mg/L	NE	360	330	360	410	460
Magnesium	mg/L	NE	280	320	300	280	920
Sodium	mg/L	NE	1600	1,700	1,500	2,400	5,700
Potassium	mg/L	NE	12	12	12	36	29
Iron	mg/L	1.0	<0.20	<0.20	<0.20	<0.20	<0.20
Phosphorus	mg/L	NE	<0.20	<0.20	<0.20	0.128	<0.20
Barium	mg/L	1.0	<0.05	<0.05	<0.05	<0.05	<0.05
Boron	mg/L	0.75	**1**	**1**	**1**	**0.773**	**1.7**
Lithium	mg/L	NE	0.43	0.44	0.42	<0.1	0.72
Manganese	mg/L	0.2	<0.05	<0.05	0.07	0.07	0.08
Strontium	mg/L	NE	6.6	6.6	6.2	12	7.1
Uranium	mg/L	5.0	<0.50	<0.50	<0.50	0.046	<0.50

Note: NE – not evaluated

6.0 POTENTIAL CONTAMINANT EXPOSURE/MIGRATION PATHWAYS

6.1 Soil Pathway

Soils in the vicinity of the HELSTF TSA are predominantly fine-grained. The physical dimensions of the sediment grains dictate that there is more pore space and greater grain-surface area per unit volume, relative to coarser materials. Both physical characteristics combine to retain more gasoline within a given volume of soil (i.e., high adsorptive capacity). The pore space can hold a greater volume and the increase in grain-surface area results in the greater retention of fluids due to the surface tension properties of the fluid.

The soil's absorptive capacity for gasoline appears to be great enough in this case to preclude the breakthrough of roughly 1,500 gal (5,675 L) of gasoline to the regional water table at approximately 90 ft (27.4 m) bgs. As of the time of the site investigation in May 2000, vertical penetration of the contaminants had not exceeded 30 ft (9.1 m). Lateral migration of the gasoline showed an increase in the area of the interface between the fine-grained material and a thin sand layer at approximately 22 ft (6.7 m). The maximum extent of contaminants was defined by the soil boring program, as shown in Figures 5-1, 5-2 and 5-3. It is assumed that without the

introduction of additional gasoline at the source, the absorptive capacity of the sediment below the TSA fueling station retains the contaminants in roughly the same configuration. However, it is also likely that vapor-phase advective and diffusive migration continues.

Human and animal contact with the contaminated soil is prevented by pavement in the source area. Only through burrowing or excavation could contact with the contaminants become a health concern.

6.2 Groundwater Pathway

The results of the site characterization detailed in Section 5 indicate that the volume of gasoline spilled was insufficient to produce breakthrough to the regional water table. The groundwater analyzed for this study did not indicate the presence of target compounds, but was not of a potable quality (see Section 5.1.2). The high TDS is typical of natural groundwaters in the central Tularosa Basin. This, combined with the lack of springs in the area, precludes groundwater as an exposure pathway to humans or animals for the contaminants released at the site.

6.3 Surface Water Pathway

No contaminant migration occurred along the surface water pathway because the gasoline was released from delivery line connections and fittings located subgrade. The release point is near the center of a 900 square-foot (83.6 square-meter) area paved with concrete. As a result, gasoline did not emerge on the ground surface where it could contaminate surface water.

6.4 Air Pathway

Pavement in the area surrounding the spill is preventing the accumulation of high concentrations of vapor at the surface of the ground where a person or animal is most likely to come in contact with it. If excavation is performed at the site, there is a much greater likelihood that the air pathway could become a human health concern. The migration of contaminants has not approached any buildings, and therefore the impact to basement airspace is not currently at issue.

7.0 INVESTIGATION CONCLUSION AND RECOMMENDATIONS

The investigation conducted at the HELSTF TSA in May 2000 produced data that lead to the following conclusions. Considering the data as a whole, a discussion of the appropriate remedial response is presented in Section 7.3.

7.1 Vadose Zone

Drilling and sampling in early May 2000 produced evidence that unsaturated sediments above the regional water table and the capillary fringe retained the bulk of the 1,500 gal (5,675 L) gasoline spill. The sediments are fine-grained and rich in silt, clay, and gypsum. The sediment grains observed during the subsurface investigation are within the size range that can be transported by water and/or wind. The physical nature of the uncemented sediment is generally associated with high porosity, lower saturated hydraulic conductivity, and higher surface area per unit volume. As a result, much of the gasoline released accidentally from the HELSTF TSA is adsorbed on to

sediments in the vadose zone and retained in interstitial pore spaces.

7.2 Groundwater

The aquifer below the HELSTF TSA gasoline spill location is not potable due to high concentrations of dissolved minerals (TDS > 8,000 mg/L). However, if gasoline reached the water table in the future there would be a concern that flows within the aquifer could contaminate down-gradient groundwater resources that are protected under the Water Quality Control Commission regulations (WQCC, 1996).

Three wells screened across the regional water table were installed as part of this site characterization. A gradient of 0.0027 was estimated from measurements of the potentiometric surface (Figure 4-2), which was found not to be under confining pressure. Assuming a range of hydraulic conductivities for the predominant aquifer materials, the average velocity of groundwater in the direction of flow could conceivably range on an order-of-magnitude between 3 and 30 ft per year (1 to 9 m per year) (Heath, 1982).

Although some components of gasoline, particularly benzene and toluene, migrate at rates that exceed the groundwater velocity due to diffusion, the maximum length of any gasoline contaminant plume recorded to date is on the order of hundreds of feet (tens of meters). Industry experts accept that longer plumes have not been seen because indigenous microbes metabolize the various gasoline components at rates that range between locations and compounds. Because the flow direction at the HELSTF TSA is towards the center of the Tularosa Basin, it is unlikely that potable water would be intersected in that direction for 20 to 50 mi (32 to 81 km). Owing to the finite maximum length of recorded BTEX plumes, it is highly unlikely that the release from the HELSTF TSA will contaminate groundwater resources that are scheduled to be utilized in the reasonably foreseeable future.

Investigation of perched saturation in a sand layer (see Section 6.2) at approximately 23 ft (7.0 m) bgs could potentially determine if it has a natural source or emanates from the water/wastewater infrastructure at HELSTF TSA.

7.3 Remedial Options Considered

The investigation to determine the extent of gasoline contamination at the HELSTF TSA POL station produced two conclusions that affect the remedial action decision-making.

1) Geologic materials affected by the gasoline spill are predominantly fine-grained, having been deposited in a central basin lacustrine and fluvial setting.
2) The volume of gasoline released was insufficient to migrate the entire distance to regional groundwater in the time span immediately following the spill until the site characterization.

It would be prudent to remediate the gasoline retained in the vadose zone so that the threat of groundwater contamination is eliminated. However, the same soil characteristics that help to retain the gasoline above the water table may inhibit the exchange of soil vapor. If the physical properties of the soil are conducive to soil-vapor extraction (SVE), the volatile components of

the gasoline could be removed using relatively inexpensive, non-intrusive methods. If SVE is impractical due to vadose zone conditions, it may become necessary to consider more expensive remedial methods such as passive soil venting, air sparging, or extraction.

8.0 CORRECTIVE ACTION

8.1 SVE Pilot Study

Based on the defined extent of the gasoline contamination determined through this site investigation, White Sands initiated a SVE pilot study during July 2000 to determine the efficacy of this method for contaminant removal. White Sands contracted AcuVac Remediation, Inc. (Houston, TX) to perform a one-day pilot study. Vapor wells HVW-01 through HVW-04 were evaluated for their capacity to transmit volatile components of gasoline to the surface. The results of the pilot study indicated that SVE would be an effective method of remediation at the facility, specifically at HVW-01. The effective vacuum radius of influence at the site from HVW-01 was determined to be approximately 50-56 ft (15.2-17.1 m) in the easterly direction towards HVW-01, and approximately 25-25 ft (6.4-7.6 m) in the southerly and westerly direction towards HVW-02 and HVW-03. The pilot study indicated that under certain SVE operating conditions, approximately 15.04 lbs/hour [6.82 kilograms (kg)/hour] of gasoline and 0.24 lbs/hour (0.11 kg/hour) of benzene could be removed from the subsurface. A copy of AcuVac's pilot study report is attached as Appendix K.

8.2 Long Term SVE Operation

Based on the conclusions of the one-day pilot test, White Sands contracted AcuVac Remediation, Inc. to provide a SVE system for continual, long-term operation. The SVE system was installed on 16 October 2000 and operated continuously through 24 February 2001 for a total of 2,012.6 hours. The system was connected to vapor extraction well HVW-01 throughout the entire length of operation. The SVE system utilized by White Sands was similar in construction and operation to the SVE system used to perform the pilot study. Photographs of the system are shown in Appendix B.

Prior to startup of the system, White Sands notified the NMED Air Quality Bureau (AQB) of the intent to operate the system. White Sands provided a preliminary assessment of potential emissions generated by the system. Based on the information provided as well as the limited duration of operation, it was determined by the AQB that the system did not warrant permitting. As stated in the *Operation and Safety Manual* (AcuVac, 2000), the system consisted of a vacuum pump driven by a six cylinder industrial rated internal combustion engine (ICE). The vacuum on the extraction well (HVW-01) caused the hydrocarbons to volatilize and flow with the air into the well and up to the vacuum pump. The vapors were directed to the intake of the engine where they were mixed with a supplementary fuel, in this case liquid propane. Due to the initially high TPH concentration at the at the release site, the system did not required the addition of liquid propane until after 277.1 hours of operation. This fuel mixture was then burned in the engine through the process of compressive thermal oxidation. Temperatures within the engine exceed 4,000 °F (2,200 °C), substantially consuming the hydrocarbon mixture. The engines air to fuel ratio was adjusted daily to maintain efficient combustion when the vapors from HVW-01 were combined with the fuel from the carburetor, thus resulting in minimum emissions from the engine.

Copies of daily operation logs, which indicate air intake and fuel consumption settings, are in Appendix L. The engine exhaust was passed through three automotive-type catalytic converters (two in parallel leading to one in series) to ensure maximum destruction of hydrocarbons. The temperatures at the catalyst exit ranges between 800 and 1,400 °F (420-760 °C). The catalytic converters met EPA requirements (AcuVac, 2000).

Vapor extraction well HVW-01 is screened from 15-20 ft (4.6-6.1 m) bgs, approximately 14-ft (4.3 m) above the shallow, perched water-bearing zone. Due to the close proximity to the saturated zone, the vacuum generated by the SVE system created an upwelling of the shallow, perched water-bearing zone and subsequently drew water and liquid gasoline into HVW-01. Consequently, several times during each week, field personnel bailed water & gasoline from HVW-01 to keep the well screen open for vapor extraction. The water/gasoline was stored in 5-gal (19 L) DOT-approved containers prior until disposal. Approximately 41.2 gal (156 L) of gasoline and 74.6 gal (282 L) of water were bailed from the well during operation of the SVE system.

Periodically, air samples were collected in Tedlar bags via a sample port in the manifold attached to HVW-01. Samples were submitted to Hall Environmental Analysis Laboratory (Albuquerque, NM) for analysis by EPA methods 8015 GRO and 8021B (BTEX + MTBE). Additionally, several samples were split and shipped to AcuVac Remediation in Houston, TX for analysis using a Horiba flame-ionization detector (FID). Analytical results are shown in Table 8-1. Copies of the analytical results are in Appendix M. Figures 8-1 and 8-2 additionally show the reduction in TPH and BTEX within the subsurface at HVW-01 during operation of the SVE system.

Table 8-1.
Analytical Results from Air Samples Collected During Operation of the SVE System

Sample Date	Analytical Results as Reported by the Laboratory**					
	TPH (ppmv)	MTBE (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethyl-benzene (ppmv)	Total Xylenes (ppmv)
10/17/00	12,951	<33	57	1,217	99	211
10/25/00	20,853	<33	459	803	34	68
10/27/00	28,535	<33	775	1,339	80	165
10/30/00	30,730	<33	890	1,485	87	180
11/14/00	21,292	<16	574	1,387	127	153
11/27/00	14,268	<6	488	1,436	103	<6
12/13/00	834	0	264	1,095	95	203
1/24/01	5,268	<6	83	560	84	184
2/12/01	2,634	<16	25	365	57	131
2/24/01	2,634	<13	14	292	80	190

Note: * ppmv – parts per million (volumetric)
** The laboratory originally reported the data as µg/L. The data was converted into ppmv to compare to AcuVac data.

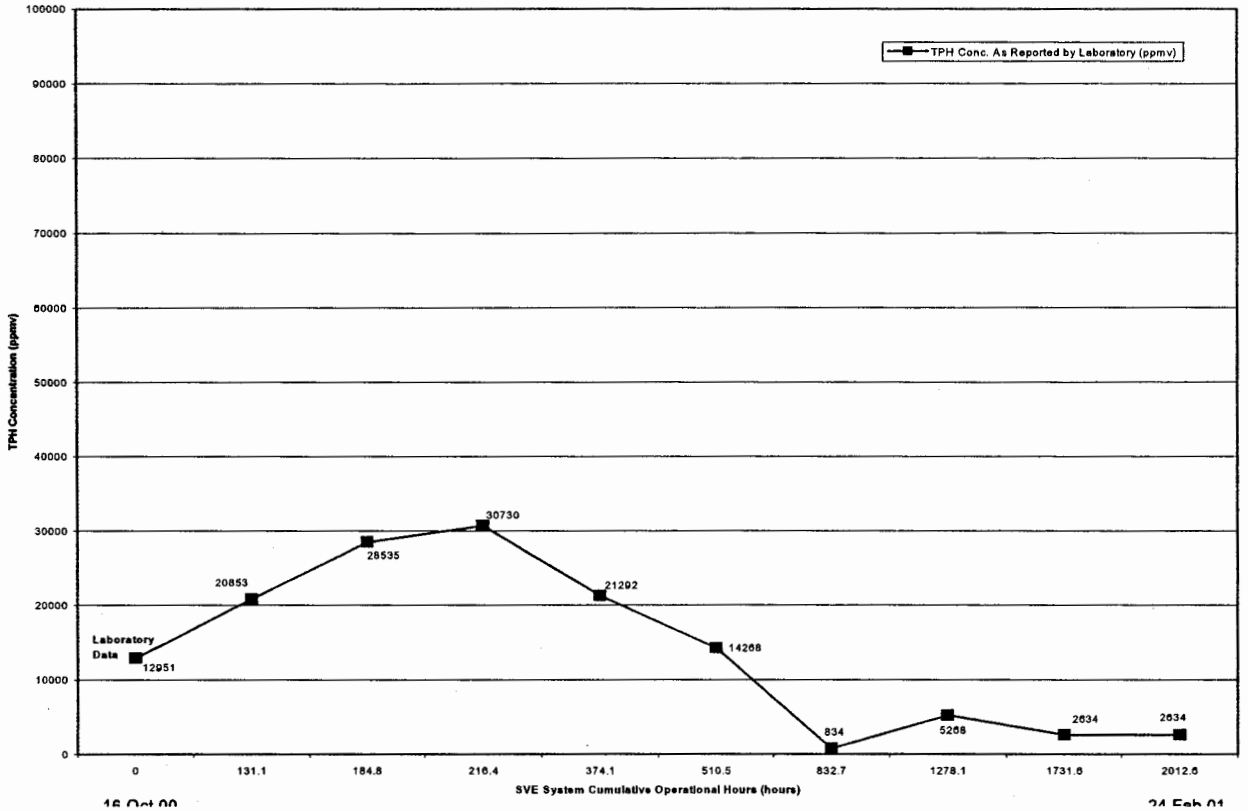

Figure 8-1. Reduction in TPH Concentration

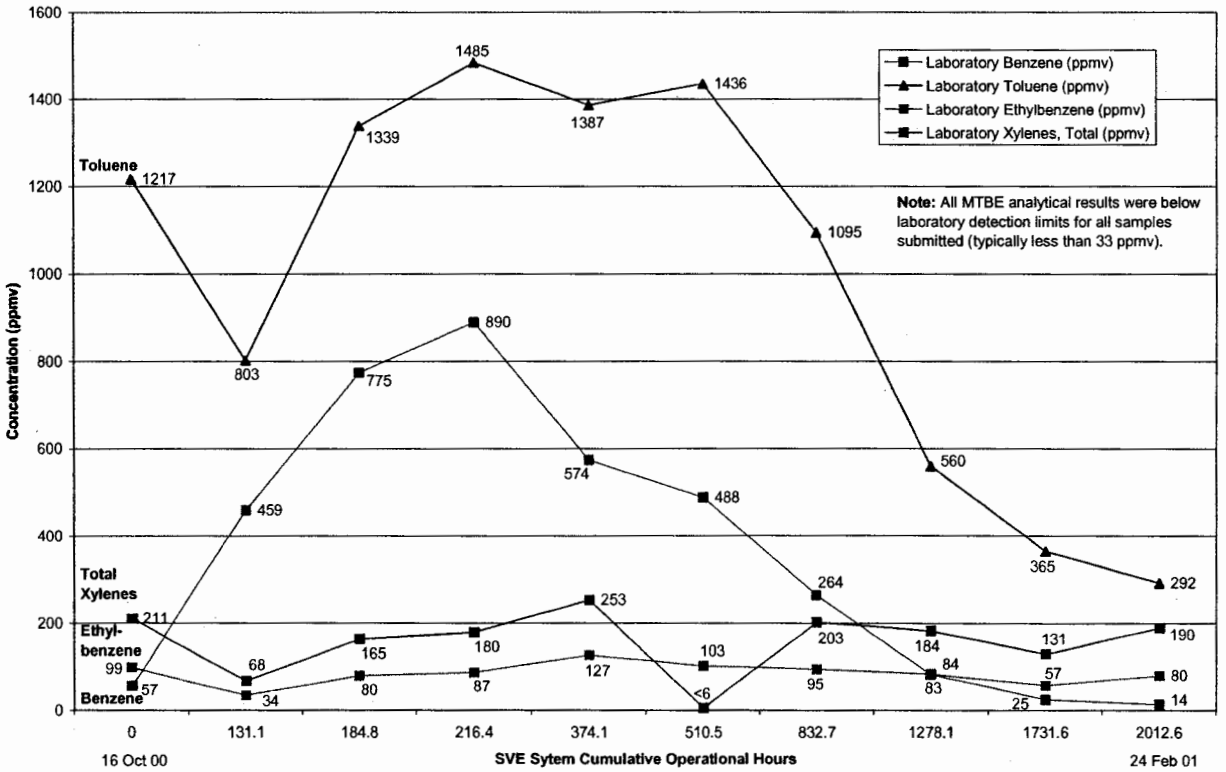

Figure 8-2. Reduction in BTEX Concentration

White Sands estimates that the SVE system removed from the subsurface and subsequently burned approximately 1,790 gal (6,775 L) of gasoline. This estimate was based on known British Thermal Unit (BTU) requirements at specific revolutions per minute (rpm) settings for the six cylinder ICE. AcuVac Remediation provided White Sands with known BTU requirements at three rpm settings: 1,800 rpm, 2,000 rpm, & 2,200 rpm (see Table 8-2). The data is based on tests performed by AcuVac Remediation with an identical SVE system in Lubbock, TX.

Table 8-2. ICE BTU Requirements

rpm setting	BTU Requirement to maintain rpm setting
1,800	228,000
2,000	252,000
2,200	264,000

Given the above rpm & BTU data, a crude linear power curve was generated to provide BTU requirements at various rpm settings. The rpm vs. BTU power curve used to determine BTU requirements at specific rpm settings is shown in Figure 8-3.

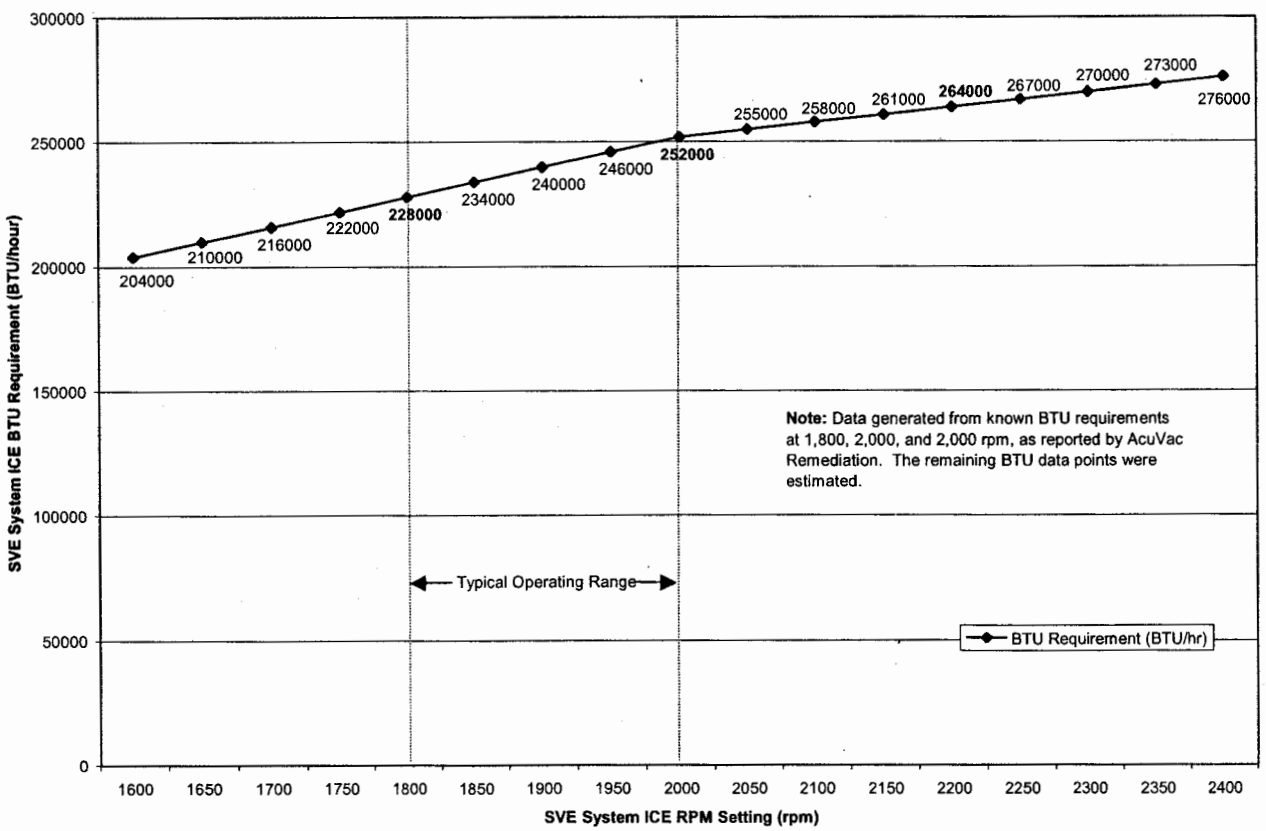

Figure 8-3. RPM vs BTU Power Curve for the SVE System

A Microsoft™ Excel spreadsheet was developed to calculate and sum all daily gasoline removal estimates for the life of the project. A copy of the spreadsheet is in Appendix N. A description of the mathematical equation used to determine the mass and volume of gasoline removed from the subsurface and burned by the SVE system was determined as follows:

Equation 1. Mass Removal Estimate

$$\text{lbs of gasoline burned during time interval (lbs)} = \left[\left[\text{BTU rqmt. for rpm setting (BTU/hr)} - \left(\text{Propane flow rate } (ft^3/hr) * 0.60 \text{ (gauge efficiency)} * \frac{2{,}520 \text{ BTU}}{ft^3 \text{ propane}}\right)\right] * \frac{1 \text{ lb Gasoline}}{20{,}500 \text{ BTU}}\right] * \text{Time interval (hr)}$$

Equation 2. Conversion from Mass of Gasoline Removed to Volume of Gasoline Removed

$$\text{Gallons of gasoline burned during time interval (gal)} = \left[\text{lbs of gasoline burned during time interval (lbs)} * \frac{1 \text{ gal gasoline}}{6.3 \text{ lbs}}\right]$$

An example calculation using data on 24 February 2001 is as follows:

To determine the mass of gasoline removed between 21 February 2001 and 24 February 2001 the following data is input into equation 1:

> **BTU requirement for rpm setting:** Refer to the daily operation log (Appendix L) for 2/21/01. The rpm setting was 2000 rpm. To account for subtle variations in the rpm, the rpm was reduced by 10% before determining the BTU requirement. To determine the actual BTU requirement, refer to the RPM vs. BTU Power Curve in Figure 8-3 above. The BTU requirement for the rpm setting as of 21 February 2001 was 228,000 BTU.
> **Propane flow rate:** Refer to the daily operation log (Appendix L) for 21 February 2001. The propane flow rate, as set on 21 February 2001, was 115 cubic feet per hour.
> **Time interval:** The system operated for a total of 66.4 hours between 21 February 2001 and 24 February 2001 at the aforementioned settings.

After entering the values into equation 1, the total pounds of gasoline burned during 66.4 hours between 21 February 2001 and 24 February 2001 was 175.3 pounds, which approximately converts to 27.8 gallons (using equation 2).

Naturally, as the TPH concentration in the subsurface decreased over time, the system required additional propane to meet the engine's BTU requirements. As previously stated, the system operated from time 0 through 277.1 hours solely off of the TPH vapors extracted from the subsurface. Propane was gradually increased for the remaining 1,735.5 hours to maintain optimum engine settings. Figure 8-4 shows the gasoline burn rate and the propane consumption rate throughout the life of the project.

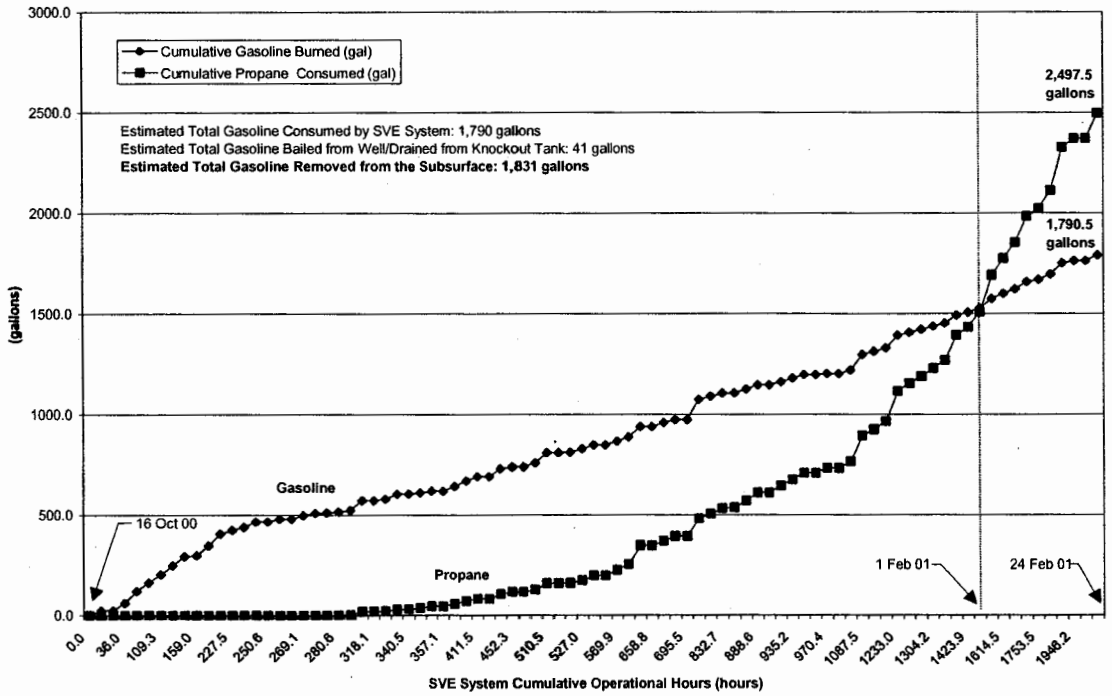

Figure 8-4. Gasoline Burn Rate and Liquid Propane Consumption Rate

As shown above, White Sands estimates that the SVE system consumed an estimated 1,790 gal (6,775 L) of gasoline in addition to 41 gal (155L) bailed from the extraction well for a total of 1,831 gal (6,931 L), which is greater than the reported release of 1,485 gal (5,620 L).

9.0 CONCLUSION

Based on the results of the soil and preliminary groundwater investigation, the horizontal and vertical extent of gasoline contamination was determined. The majority of the release was held in surface tension between the ground surface and approximately 28 ft (8.5 m) bgs. Concentrations of benzene and toluene were detected in the shallow, perched water-bearing zone in excess of WQCC Standards. However, this water is not potable due to TDS concentration of 26,000 mg/L. Laboratory analysis of samples collected from the regional aquifer upgradient and downgradient of the release site, which has a TDS concentration of approximately 8,000 mg/L, did not detect any gasoline range TPH or any other gasoline components.

As a prudent landowner, White Sands operated a SVE system at the site for a total of four months, during which time it is estimated that approximately 1,790 gal (6,775 L) of gasoline were removed from the subsurface. Analytical results of air samples collected from HVW-01 during operation of the SVE system indicated that subsurface TPH concentrations were reduced from approximately 30,700 ppm to approximately 2,200 ppm. Additionally, it is noted that subsurface benzene and toluene concentrations were significantly reduced as well. Obviously additional soil and groundwater sampling will be required in the near future to determine the effectiveness of the abatement action, verify that gasoline has not reached the regional aquifer, and potentially collect additional data for a site risk assessment. After receipt of NMED comments, White Sands will initiate additional actions at the site as required.

REFERENCES

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APPENDIX C

Record of Environmental Consideration

APPENDIX A

Description of Proposed Action

1. **Title: Implementation of the RFI Work Plan for the HELSTF Technical Support Area**

2. **Background/Purpose of Action:** White Sands Missile Range (WSMR) has been investigating the gasoline leak at the High Energy Laser Systems Test Facility (HELSTF) Technical Support Area (TSA). A RCRA Facility Investigation (RFI) Work Plan has been prepared to complete the investigations to determine the nature and extent of releases of hazardous waste or constituents from this spill site. WSMR intends to execute the existing RFI Work Plan as a Voluntary Corrective Measure (VCM) under the provisions of the Resource Conservation and Recovery Act (RCRA), as administered by the New Mexico Environment Department, Hazardous Waste Bureau. This DOPA and REC is for executing the studies identified in the current RFI Work Plan, FINAL *Work Plan for the RCRA Facility Investigation at the High Energy Laser Systems Test Facility (HELSTF) Technical Support Area (TSA)*, BAE SYSTEMS, August 2003 (the Work Plan).

3. **Need:** This investigation is required to complete the preparation of the RFI final report.

4. **Proposed Action:** The following describes the proposed action to complete the field work for the project:

4.1 Execution of the Work Plan

BAE SYSTEMS/North Wind, contractors to WS-ES-EC, will execute the scope defined in the Work Plan, as modified. The following sub tasks will be performed to complete the execution of the work plan.

4.2 Mobilization

The field crew will mobilize to the site. Mobilization will also include developing a decon pad and the appropriate exclusion zone for the sampling and groundwater monitoring well installation.

4.3 Perform Soil Sampling

Nine soil borings will be drilled in the same locations as those in the previous investigation (Refer to figure 3-2 in the HELSTF TSA RFI Work Plan). An offset of 5 feet from the previous borehole will ensure that the soil is undisturbed. Five additional borings will be located in areas unaffected by the contamination. The soil borings will be drilled using a hollow-stem rig supervised by a site geologist using industry-standard methods. Each soil boring will be drilled to 40 feet in depth. Additionally, 5 background 40-foot boreholes will be drilled away from the site.

Samples will be submitted to the laboratory for analysis of VOCs, SVOCs, GRO and lead. Samples collected for background concentrations will be sampled for lead only using the same matrix reporting limits.

Backfilling of the open boreholes will be accomplished with a 5% bentonite grout using a tremmie pipe. This method will prevent bridging and ensure that the open borehole is sealed to prevent creation of a migration pathway.

Prior to leaving the sample location, a surveying stake with the location number written on it will be placed at or immediately adjacent to the actual sampling location. The boring location coordinates will be taken using a Global Positioning System (GPS).

4.4 Install Groundwater Monitoring Wells

Two down-gradient groundwater-monitoring wells will be installed in the regional aquifer to an approximate depth of 100 feet. The wells will be installed using a hollow-stem rig supervised by a qualified scientist using industry-standard methods. The proposed locations for the monitoring wells will be 25 feet downgradient of the spill and 100 feet downgradient of the spill with an offset of 20 feet to the east.

Each monitoring well will be completed with an aluminum protective casing, rising 30-36" above the ground surface. A 4-foot square, 8-inch thick concrete pad will be constructed around the casing, together with four 4-inch diameter steel posts, concrete filled, emplaced 3 feet from, and equally spaced around, the well.

4.5 Perform Ground Water Sampling

The three existing and two new groundwater monitoring wells will be sampled a minimum of two weeks following development of the new wells

4.6 Demobilization

The field crew will be demobilized from the field. The Decon pad will be dismantled and all the investigative derived waste will be disposed of at the appropriate disposal site.

5. **Decision to be made**: This action can be completed under a Categorical Exclusion and no Environmental Assessment is required.

APPENDIX B

1. UDS Number: **TBD**

2. Real Property Board Action Number: **TBD**

3. Beginning and Ending Date: **The fieldwork for the project will start on April 1, 2004 and be completed by May 15, 2004.**

4. Length of Project (in weeks): **6 weeks**

5. Total Operating Budget of the Project: **$150,000.00**

6. Major Category of Project/Action: **Environmental Investigation**

7. Range Sponsor (office symbol; phone and fax number): **Gene Forsythe, WS-ES-EC; phone -678-1007; fax – 678-1199**

8. Action Sponsor: **William Little, BAE SYSTEMS, ph. 678-2853, fax: 678-6096**

9. UTM Coordinates of the Major Actions: **Project will be in the area of the HELSTF TSA POL Facility (E:377,875, N:3,609,699), as shown on the accompanying figure.**

APPENDIX C

1. Type and numbers of Government Vehicles to be used on the project:

    - **1 Government Pick-up**

2. Type and number of contractor vehicles to be used on the project:

    - **2 Rental Vehicle**
    - **1 drill rig**
    - **1 pick-up**
    - **1 Backhoe or Bobcat**

3. UTM coordinates of all electrical generators: **N/A**

4. Type, rating in kw, and number of generators: **N/A**

5. UTM Coordinates of all noise sources over 85 dba: **No noise sources over 85 dba will be used.**

6. Types and dba level for all noise sources over 85 dba: **N/A**

7. Will a Sonic Boom be generated: **No**

8. List the frequency and time of day of any Sonic Booms: **N/A**

    - Names and quantities of any chemicals, paints, solvents, oils, etc. utilized: **None.**

    - Will debris result from the action: **No.**

9. List air contaminants emitted and their totals (lbs) and totals per day: **None.**

10. Latrine requirements: **None, facilities are located within the project area**.

11. Non-Construction water use requirements: **Water will be required for drinking**.

12. Water sources for drinking and sanitary water: **Bottled water will be used.**

13. Does this action involve construction or facility renovation and repair: **No**

14. Does this action require targets: **No**

15. Does this action involve non-ionizing radiation: **No**

16. Does this action involve ionizing radiation: **No**

APPENDIX D

1. Estimated total cost of construction: **$75,000.00**

2. Length of Construction in weeks: **6 weeks**

3. Number of Personnel participating in action: **6**

4. Types and numbers of specialized construction vehicles to be used: **One drill rig will be used for the soil sampling and groundwater monitoring well installation. One backhoe will be used for final grading.**

5. UTM coordinate pair locations of existing and new borrow pits to be used: **N/A**

6. Number of cubic yards of soil to be removed from each prospective borrow pit and pit dimensions (surface area in acres and depth in feet): **N/A**

7. UTM coordinate pair of site location: **The project will be performed in the area of the HELSTF TSA POL Facility. The locations of the two proposed monitor wells are:**

   HMW-51: **E: 377,875.3**
   N: 3,609,692.3

   HMW-52: **E: 377,874.7**
   N: 3,609,668.6

8. Building numbers of structures to be effected: **None**

9. Number of surface acres to be disturbed at each respective site: **< 5 acres will be disturbed at the site.**

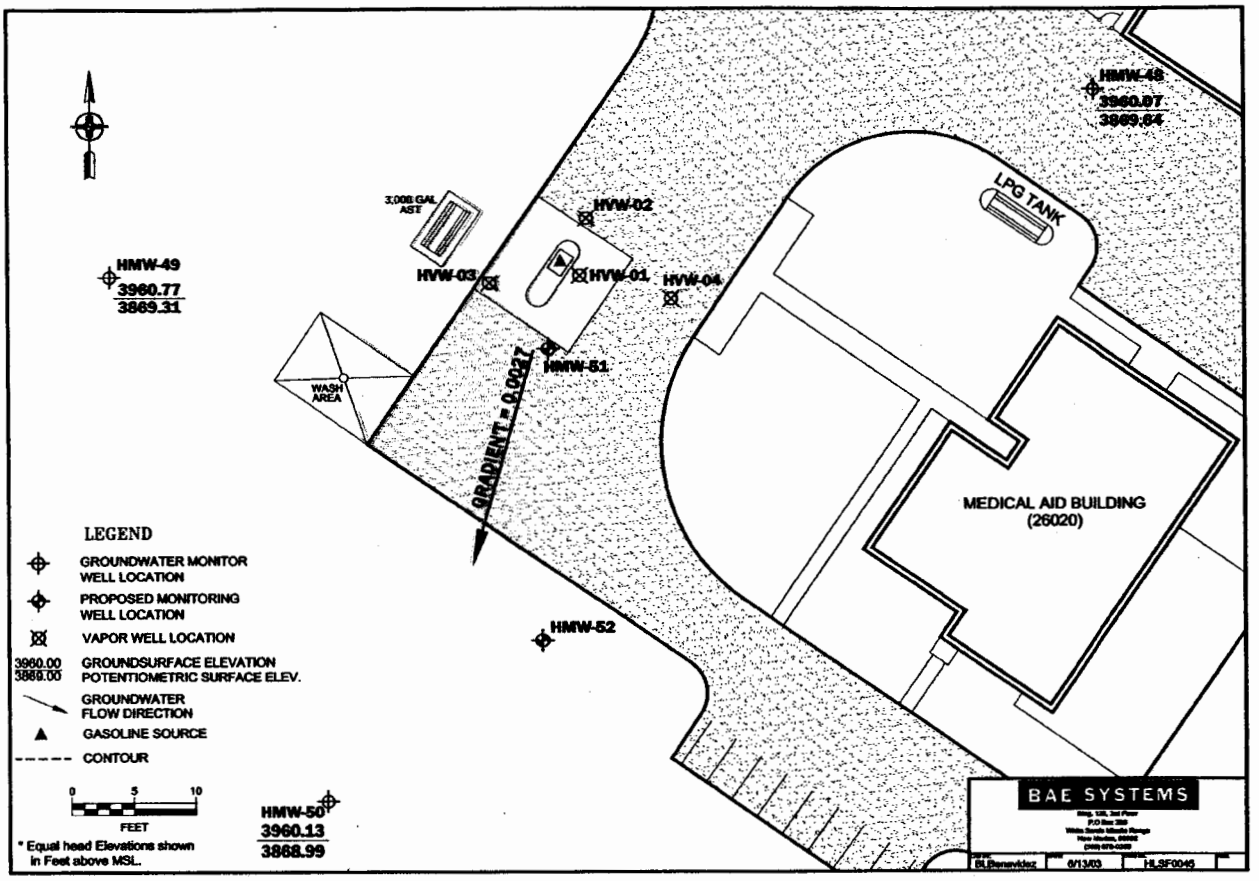
10. UTM coordinates of construction debris disposal and types of debris to be disposed of at each site: **The drill cuttings will be disposed in the appropriate locations. If not hazardous, then the cuttings will go to the construction landfill on WSMR Main Post. If the drill cuttings are considered hazardous waste, then they will be disposed in accordance with WSMR hazardous waste disposal procedures. Decontamination and Purge Water will disposed as per standard WSMR waste disposal procedures.**

11. Water sources for this action and estimated volume to be used: **All the water for this project will be brought on site in portable containers. It is estimated that less than 500 gallons of water will be used.**

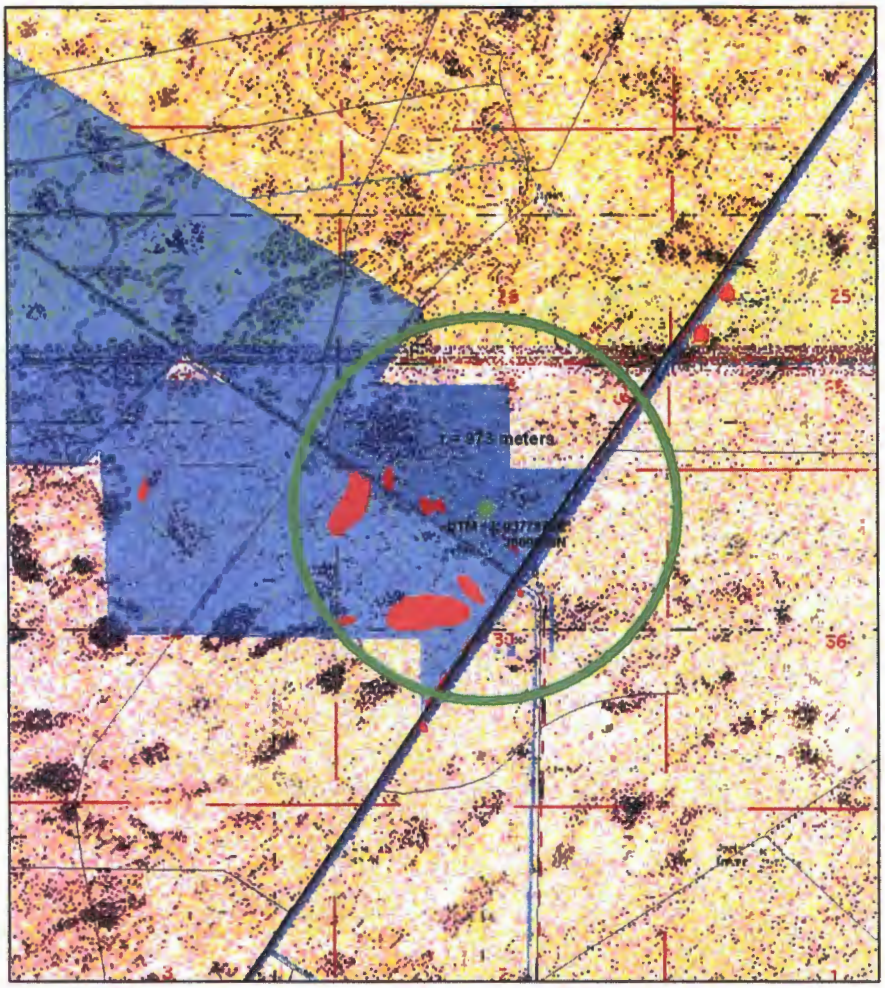
12. Air pollution sources and UTM coordinates: **No Air Pollution is expected as a result of this action.**

NOTE: Appendices E (required for actions involving tests requiring targets), F (required for actions which will involve nonionizing radiation), and G (required for actions which will involve ionizing radiation) are not applicable to the HELSTF TSA Project.

HELSTF TSA Proposed Groundwater Well Locations



White Sands Missile Range
RC04051a HELSTF Fuel Spill Investigation



973Meter radius circle

Archaeological Sites

Cultural Resource Surveys

260130 0 260 520

Meters

Date: 9 March 2004

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APPENDIX D

Utility Clearance Information

Post-it® Fax Note 7671	Date 3/25/04 # of pages ▶ 1
To Larry Brook	From William Little
Co./Dept. HELSTF	Co.
Phone #	Phone # 678-2853
Fax # 678-5068	Fax # 678-6096

Date: March 24, 2004

MEMORANDUM FOR UTILITIES SERVICES SE(

SUBJECT: UTILITY CLEARANCES

Site Location: HELSTF TSA POL Station
Work Order No: _____

1. Request that the individuals conducting the identification of existing utility lines at the construction site acknowledge identification of the utility by signing and dating by appropriate utility section listed below.

DEPARTMENT	Signature / (Names Printed)	
GAS (3-2397)	F TAPIA ( )	Date: 3/30/04
WATER / SEWER (3-1917)	F TAPIA ( )	Date: 3/30/04
ELECTRICAL DEPT. (3-2851)	F TAPIA ( )	Date: 3/30/04
COMMO. SECTION (3-2162)	( )	Date: 4-15-04
EOD SECTION (3-2035)	See attached Sheet ( )	Date: _____

2. Above Clearance does not relieve the contractor of responsibility to use proper excavation methods and due care working around the approximate locations of utility services.

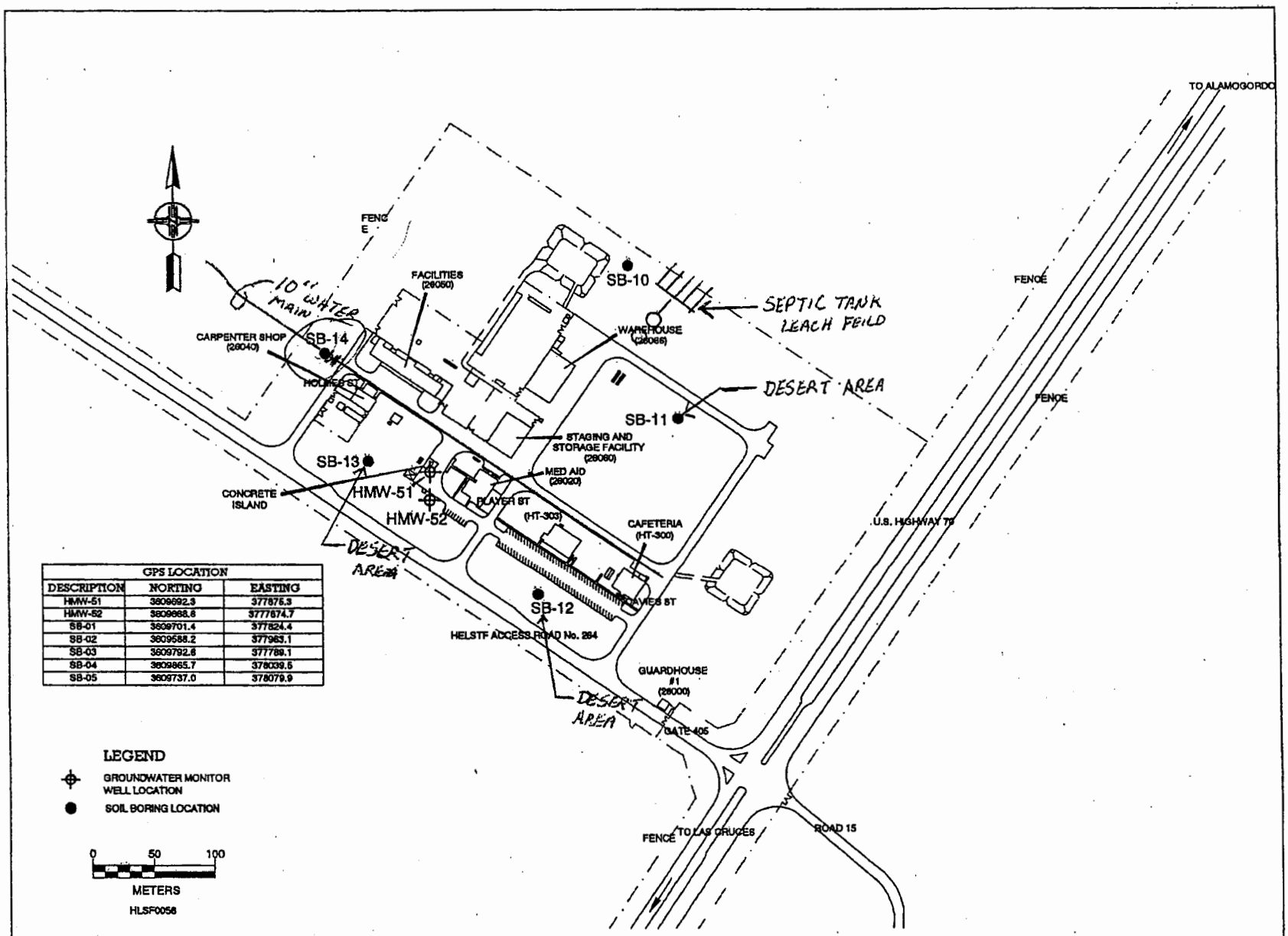
Requested By:

William Little
BAE Systems
(678-2853)

Date: 3/25/2004

Technical Inspector

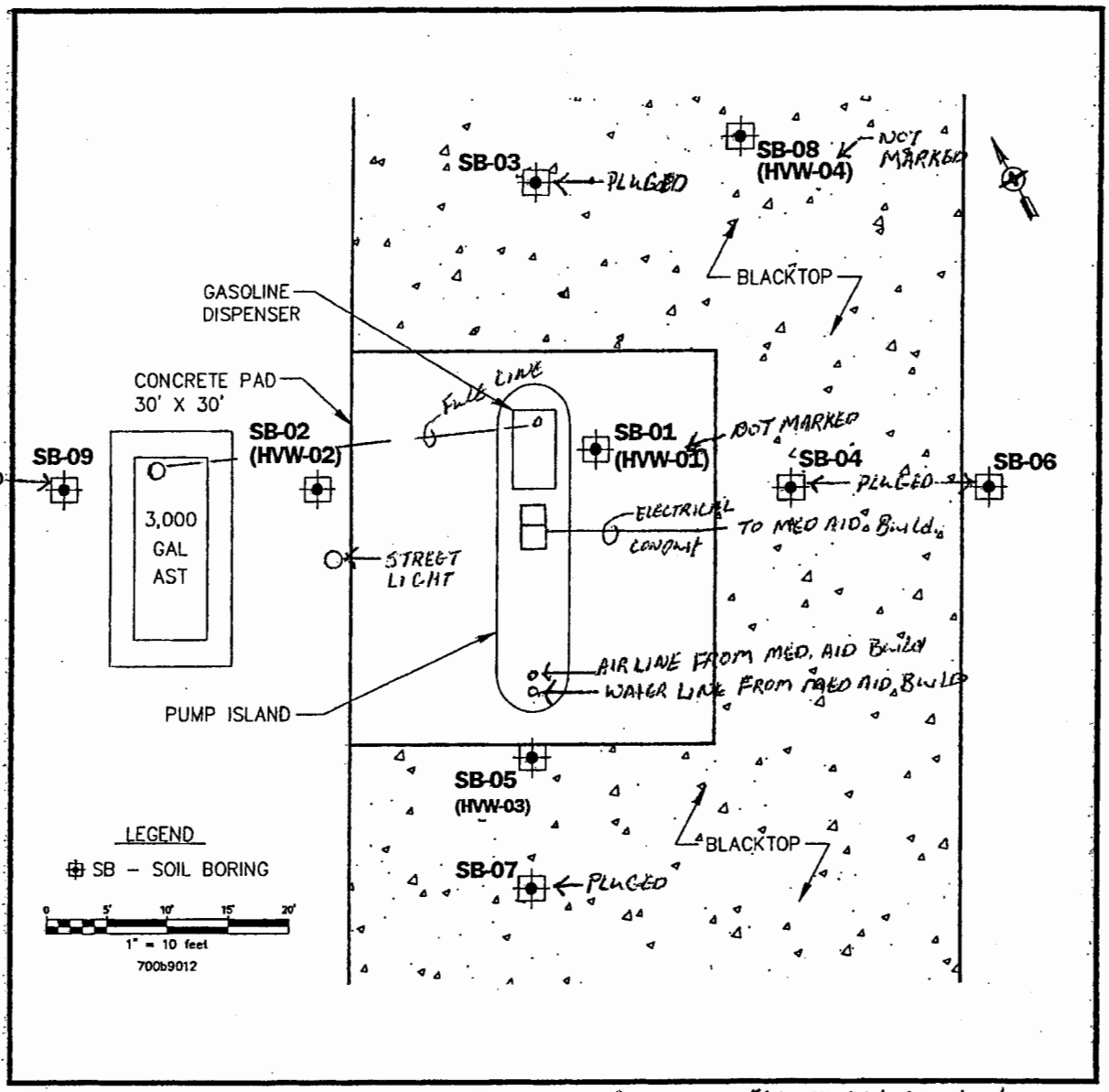
Date: 3/25/2004



GPS LOCATION		
DESCRIPTION	NORTING	EASTING
HMW-51	3609692.3	377875.3
HMW-52	3609668.8	3777674.7
SB-01	3609701.4	377824.4
SB-02	3609588.2	377963.1
SB-03	3609792.6	377789.1
SB-04	3609865.7	378039.5
SB-05	3609737.0	378079.9

SB-14 LOCATION IS TO CLOSE TO 10" WATER MAIN

IT IS PRESUMED THAT NO UTILITIES EXIST IN DESERT AREAS



5' RADIUS ON POINT SB-01 (HVW-01) UNDER GROUND ELECTRICAL CONDUIT
SAME ON POINT SB-04 AND SB-06 TO INCLUDE AIR AND WATER LINES ON PUMP ISLAND
5' RADIUS ON POINT SB-02 (HVW-02) UNDER GROUND FILL LINE AND ELECTRICAL CONDUIT

This figure shows the locations of 9 boreholes that were drilled in March 2000 to a depth of 40 feet bgs. Nine boreholes will be drilled at these same locations within a 5-foot offset radius from the borehole certerline in April 2004.

Note: The utilities clearance task must take into account the 5-foot offset radius.

Flores, Benny

From: Edwards, Brian A. [brian.a.edwards@us.army.mil]
Sent: Wednesday, April 21, 2004 3:59 PM
To: 'bflores@nwindenv.com'
Subject: Corrected Surface Sweep

Sir,

Sorry, I hit the 'send' button before I was done.

On 21 Apr 04 SSG Edwards and SSG Gutierrez, 734th EOD, conducted a surface sweep of the below listed areas at HELSTF:

HMW-51
HMW-52
SB-10
SB-11
SB-12
SB-13
SB-14

No explosive hazards/debris were detected during this sweep.

Brian Edwards
Response NCO
734th EOD
505-678-2035

APPENDIX E

Daily Activity Log

"Rite in the Rain"®
ALL-WEATHER WRITING PAPER

ALL-WEATHER
ENVIRONMENTAL FIELD BOOK

Name _____

Address _____

Phone _____

Project _____

This book is printed on "Rite in the Rain" All-Weather Writing Paper - A unique paper created to shed water and enhance the written image. It is widely used throughout the world for recording critical field data in all kinds of weather. For best results, use a pencil or an all-weather pen.

Specifications for this book:

Page Pattern		Cover Options	
Left Page	Right Page	Polydura Cover	Fabrikoid Cover
Columnar	1/4" Grid	Item No. 550	Item No. 550F

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CONTENTS
HELSTF RCRA FACILITY INV.

PAGE	REFERENCE	DATE
1	2004 TSA FUEL SPILL	05/04/04
37	(Follow up to 2000 INVESTIGATION)	5-17-04

Reference Page Index

147 Error codes, Hazardous classifications, Container types
148 Sampling guidelines (Liquids)
149 Sampling guidelines (Solids)
150 Approximate Volume of Water in Casing or Hole, Ground Water Monitoring Well
151 PVC Pipe casing tables
152 Soil Classification
153 Soil Classification
154 Conversions (Length, Weight, Volume, Temp, etc...)
155 Conversions (Concentrations, Volume/Flow or Time, Velocity, Acceleration)
156 Maximum Concentration of Contaminants for the Toxicity Characteristic

Location HELSTF TSA Date 05/04/04

Project / Client WSMR 2080.400

Drilling monitoring wells / Set up.

0700 N. MARTINEZ, J. GILLESPIE, R. RODRIGUEZ leave LAS CRUCES OFFICE to meet Drillers @ HELSTF

0740 Signing in @ HELSTF waiting for Drilling Subcontractor.

0822 Driller caught in Road Block @ 0800

0900 WSMR Road Block open Drilling Subcontractor on site.

0918 Drillers badged enter site Setup Decon Pad & Review Boring Locations.

10:57 Drillers complete Decon of 100 FT 6.25" ID HSA & Rear of Rig.

11:00 @ HELSTF Cafe Lunch & Safety Briefing

11:15 Carey Gradowski HSO on site

/1207 Perform Site Specific Briefing for Northrup Neil off site for PID

12:07/12:33 Unloading Cement & well supplies

3 Pallets Portland Cement

6 20 4" Riser 10 FT

6 4 5' Screens

Location HELSTF TSA WSMR Date 05/04/04

Project / Client WSMR 2080.400

Subcontractor Personnel:

10 Bags 10/20 Sand

6 Bags Hole Plug

20 Bags Quick Gel.

14 Bags Sackrete 80LBS

Supplied By El Paso Pipe & Pump Supply

915-775-0090

1-888-775-PIPE

12:33/1300 Signing Paperwork for Delivery Loading 6 1/4 HSA Preparing to Mobilize to HMW-52

1323 NIEL on site w/ PID Begin

/1400 Calibration w/ Iso Butylene

1532 CK Lead HSA w/ Bit @ ~~6.25~~ 5.5 FT

@ 1347 Lionel Brown & Larry Brooks on site to get Familiar w/ Locations

/1359

5-5216 Road Closures #

1400 Preparation to Drill New Bits on Inner Bit & HSA Lead Auger.

* Calibration of Minirae Complete 10.7 Lamp Need more Iso Butylene

1406 Begin Drilling

Location HELSTF TSA Date TUESDAY 5-4-04

Project / Client WSMR

14:40/1453 Drilled @ 15-17 FT Sample Interval
Center Bit came off in Boring
Pin came out - Retrieved - Begin
Taping Pins to prevent loss
1637 @ 40 FT No indication of perched
water from 30-40 FT. Lean Clay
1800 @ 60 FT in Sandy Clay SP SC
Mostly Fine Sand w/ little Clay,
Stop for the Day and all crews
off site for the Day

BLANK

Gillespie

Location HELSTF TSA Date WEDNESDAY 5-5-04

Project / Client WSMR

0615/0645 NM/JEG Leave Las Cruces 3 Drive to the site. Wait for R.R. 3 Raba Kistner.
0720 R.R. 3 Drill crew on site
Mobilize to TSA & set up Field
Trailer. Ck Field Supplies
Hand Brushes / Gloves / DI water
0800 Mobilize to Site Specific Training
at HELSTF.
0930 Back @ TSA site Decontaminating
Rig and Placing Cones w/ Flagging
Around Drilling Zone. Waiting for
Badging to be Complete; Set Equipment
1030 Resume Drilling Back to
where Boring was stopped on Tuesday
11:00 R.R., NM, JG, 3 Drillers Go to
the Front Gate to Exchange
Badges for No Escort Status
NM Off site for PID left @
Las Cruces Office
Drill Hand, also Leave for
Almagordo for Diesel Fuel
R.R. Acquires additional MSDS
Sheets for QD 40 3 Iso Butylene
and Alconox.

Location HELSTF TSA Date WEDNESDAY 5-5-04

Project / Client TSA FUEL SPILL INVESTIGATION WSMR

FIELD TRAILER SUPPLIES WATER QUALITY METER.
- BRUSHES (3) LONG HANDLE
- ~~[illegible]~~ .45 MICRON FILTERS w/ PERISTALTIC PUMP.

REMEMBER:
TAILGATE BRIEFING TRAINING ON SKIDLOADER
WATER LEVELS TOMMORROW

12:23 N.M. BACK ON SITE w/ PID MINIRAE TAG # 000452

JEG CALIBRATE w/ FRESH AIR THEN MULTI GAS AND FINALLY SINGLE GAS VOC ISOBUTYLENE 100 ppm READING ON INSTRUMENT 99.5 (DEGREES).

1235 JEG RANG OF WATER LEVELS

HMW-48	2.75 STICKUP	93.12	90.37
HMW-49	1.9 STICKUP.	93.28 =	91.38
HMW-50	2.08 STICKUP	93.14 =	91.06

TOP OF SCREEN @ ~~88.5~~ 89.0 BOTTOM @ ~~93.5~~ 94.0
BOTTOM OF SUMP @ ~~99.0~~

1250 RESUME DRILLING 55-60 5-11
55-57

1315 / 1344 B. DAVIS / WILLIAM GILLIE ON SITE TO OBSERVE. NO PROBLEMS ALL IS GOING ACCORDING TO PLAN

Location HELSTF TSA Date WED. 5-5-04

Project / Client TSA FUEL SPILL INVESTIGATION WSMR

B. DAVIS / J. GILLESPIE / W. GILLIE DISCUSS WELL DESIGN.

1350 BUSTED HYDRAULIC LINE. (2 gal) DRILL RIG SHUTDOWN. LESS THAN 5 gallons SPILLED
JEG TO CONTACT R.R. & INFORM OF SPILL H_2S FROM HELSTF ON SITE.

1430 RIG REPAIRED. MOBILIZE FOR DECON @ DECON PAD.

1438 H_2S OFFICER w/ HELSTF OFF SITE. DRILL RIG TO DECON PAD.

1500 DECON OF RIG & TOOLS COMPLETE ADD HYDRAULIC OIL & MOVE BACK TO HMW 52 LOCATION TO CONTINUE w/ 6.25 INCH ID HSA.

1525 RESUME DRILLING TO 60 FT

1629 @ 65 FT STOP & REPLACE TEETH ON INNER BIT ASSY THEN ADD 4 gallons H_2O DOWN THE HSA.

1700/1715 DRILLING FROM 65-70 FT MUCH EASIER AFTER CHANGING TEETH & ADDING H_2O

1810/1813 DRILLING TO 80 FT FROM 75 FAST DRILLING NO CUTTINGS ADD 10 gallons TO OUTSIDE OF HSA. →

Location HELSTF TSA Date WED 5-5-04

Project / Client HELSTF TSA FUEL SPILL INV. WSMR

1822 STILL TRYING TO GET ALL CUTTINGS OUT OF THE BORING.

1854 DRILLING 80 TO 85 FT LIGHTNING

1858 ALERT DETECTS LIGHTNING @ 24-40 MILE RANGE

1900 CLEANING OUT HOLE.

1911 NORTHWIND OFF SITE FOR THE DAY DRILLERS LEAVING IN 5 min

1930 ALL PERSONEL OFF SITE FOR THE DAY

BLANK

JE Guess

Location HELSTF TSA Date THURSDAY 5-6-04

Project / Client HELSTF TSA FUEL SPILL INV. WSMR

0620 JEG/NM LEAVE LAS CRUCES

0655 @ HELSTF GATE BADGING

0700 MIDRANGE RABA KISTNER ON SITE

0700 J.G. CONTACTS LARRY BROOKS w/ SCHEDULE OF ACTIVITIES.

0707 JG PREPARING FOR DAYS ACTIVITIES

0710 TAILGATE H_2S FORM COMPLETED TODAYS MAIN ITEM WILL BE SKIDSTEER TRAINING FOR DRILLING SUBCONTRACTOR

0720 CALIBRATE MINIRAE TAG# 000452 METHANE AND ISOBUTYLENE @ 99.7% OF 100 ppm

0730 TAILGATE H_2S MEETING

0736 HYDRAULIC FLUID. NON HAZ. CITGO PETROLEUM CORP.

CHEMTREC 1-800-424-9300

C & R DIST. INC. 915-859-9271

EL PASO

PRODUCT CODE 633430001

LESS THAN 2 gal SPILLED.

0750 CONTACT ~~RENE~~ CONCERNING AMOUNT SPILLED & PRODUCT INFO - CONCERN OVER PCBs. RHINO WILL STILL NEED

Location HELSTF TSA Date THURSDAY 5-6-04

Project / Client HELSTF TSA FUEL SPILL INVEST.

WSMR.

LEAD AND TPH (OIL RANGE ORGANICS).

CREW APPARENTLY HAS MADE GOOD PROGRESS DESPITE SET BACKS.

0800/ HYDRAULIC HAMMER CHAIN BROKEN

*/1020 DRILL CREW WORKING TO REPAIR.

0819/ STEVE REYNOLDS / LIONEL BROWN /

0826 LARRY BROOKS ON SITE

- SECONDARY CONTAINMENT MSDS SHEETS HAZARDOUS MATL
- CLEAN UP OF HYDRAULIC SPILLS
- TRAINING ON BOBCAT CERTIFICATION

• HYDRAULIC OIL SPILL TO BE CONTAINED & DISPOSED OF OFF SITE. - SCRAPE UP GRAVEL AND SOIL BENEATH RIG.

• SECONDARY CONTAINMENT BENEATH THE RIG NOT NECESSARY J.G RECOMMENDS PLACING 6 mil PLASTIC BENEATH OPERATING PORTION OF THE RIG.

(*) NOTE: BE SURE TO CONTACT RENE w/ PROGRESS ON FRIDAY AND TALK w/ BOB ON SATURDAY (*)

0929 JEG COLLECTS PHOTOS OF SURFACE CLEANUP OF PCB SPILL AREA.

(2) 55 gallon DRUMS OF HYDRAULIC OIL IMPACTED SOIL GENERATED

Location HELSTF TSA Date THURSDAY 5-6-04

Project / Client HELSTF TSA FUEL SPILL INVESTIGATION

WSMR. FRIDAY 5-7-04

CASING TALLY	INSTALLATION ACTUAL
9.90	STICK up .7 FT
10.00	SAND 12 BAGS
10.01	TAGGED @ 85.2 FT
10.01	BENTONITE CHIPS 2 BAGS
10.02	TAGGED @ 78 FT
10.04	ADD 10 GALLONS CLEAN
10.02	WATER TO HYDRATE
10.02	
10.01	90.03

SCREEN 5.01 FT

FLUSH THREAD PVC .010 SLOT SCREEN

Sump 5.0 FT

Bottom CAP. ~~[illegible]~~ .6 FT THREADED up

THREADED ~~[illegible]~~ MALE

TOTAL 100.57

100.44 1.07 STICKUP

-99.5 .94 [illegible]

Location HELSTF Date THURSDAY 5-6-04

Project / Client HELSTF TSA FUELSPILL INVEST.
HMW-52 WELL INSTALLATION.

WELL MATERIALS

PDSCO BENTONITE PLUGS
ELDORADO ARKANSAS 71731 - USA
1-800-243-7455

OGLEBAY NORTON INDUSTRIAL SANDS
BRADY PLANT
1000 OGLEBAY (NORTON) DRIVE, BRADY TX 76825-0429
915-597-0721

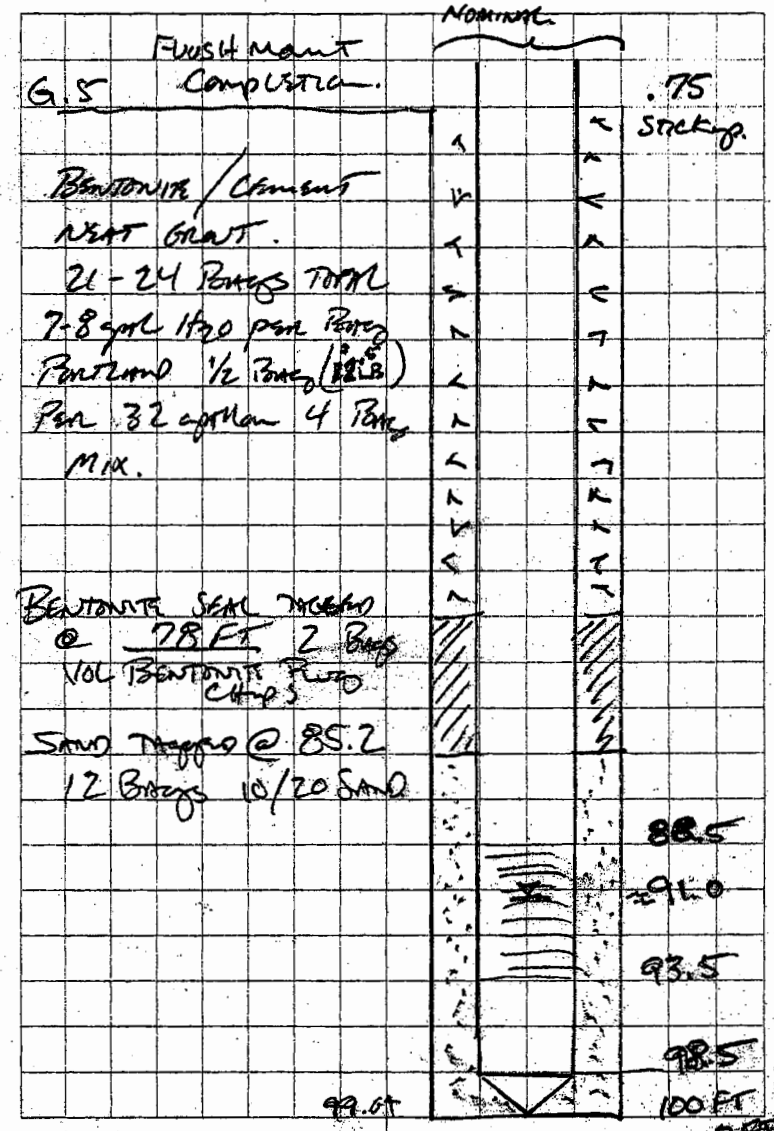
BAROID QUICKGEL
BAROID DRILLING FLUIDS
P.O. BOX 1675 HOUSTON TX 77251
1-800-735-6075

FEATHERLITE PORTLAND TYPE I/II CEMENT
ASTM C-150
FEATHERLITE BUILDING PRODUCTS ELPASO TX

LAIBE PVC SLOTTED SCREEN & RISER
ELPASO PUMP AND PIPE
ELPASO FLUSH THREAD PVC
w/ O RINGS
MARRISON
FLUSH MOUNT MANHOLE COVERS MARRISON PA.

Location HELSTF Date THURSDAY 5-6-04

Project / Client HELSTF TSA FUEL SPILL INVEST.
HMW-52 WELL INSTALLATION



TD @ 100.2 ft

Location HELSTF TSA Date THURSDAY 5-6-04

Project / Client HELSTF TSA FUEL SPILL INV.
WSMR

10:00 JEG TAKES PHOTOS OF DECON PAD PRIOR TO REMOVING HYDRAULIC OIL IMPACTED SOILS & PLASTIC
1020 PHONE CALL TO R.R. TO DISCUSS LABELING OF DRUMS & ROLLOFF CONTAINERS / VISITORS.
10:30 DRILLERS CONSTRUCT NEW DECON PAD LINED W/ NEW 6 MIL BLACK PLASTIC AND SOILS CONTAINED IN 55 gal DRUM LABELED NON-HAZARDOUS SOIL IMPACTED W/ HYDRAULIC FLUID.
10:35 DRILLING 85-90 FT
11:30 INNER BIT BECOMES DISCONNECTED FROM DRILL STRING WILL HAVE TO GO FISHING BECAME DISCONNECTED @ ≈ 75 FT DOWN.
12:23 NOW 2 SETS OF AW ROD LOST DOWN INSIDE THE 6.25" ID HSA. PIN FELL OUT DISCONNECTION SET OF RODS WHILE TRYING TO RETRIEVE INNER BIT W/ RODS
12:29 / 1300 DRILLERS DOWN FOR LUNCH
1330 ONE SECTION OF DRILL ROD RETRIEVED
1404 NM OFF SITE TO LAS CRUCES OFFICE TO WORK ON OTHER PROJECTS WHILE DRILL CREW CONTINUES TO TRY AND RETRIEVE RODS

Location HELSTF TSA Date THURSDAY 5-6-04

Project / Client HELSTF TSA FUEL SPILL
WSMR

1500 DRILLERS RETRIEVE ALL BUT 20 FT OF ROD + THE INNER BIT ASSEMBLY
1535 ALL TOOLS OUT OF BORE
11:30 / 15:30 DOWNTIME SO FAR DUE TO LOSS OF TOOLS DOWN INSIDE 6.25" HSA.
1540 H&S WSMR ON SITE OBSERVING PROGRESS OR LACK OF PROGRESS.
1630 BIT & 10 FT OF ROD STILL THERE only RETRIEVED 5 FT SECTION - PINS KEEP VIBRATING OUT
1606 - TRIPPING IN TO TRY AGAIN
/1630 NO GO CANNOT PULL INNER BIT BACK THROUGH ARGONS.
JEG CKS IN W/ BOB SANDERS DRILLERS ATTEMPT TO RETRIEVE BIT ONE MORE TIME.
1639 TRIP BACK IN (NOGO)
1709 / DRILLERS DECIDE TO HOOK ONTO THE BIT & REMOVE HSA FROM THE BORE THEN REMOVE INNER ROD & BIT SINCE THEY CANNOT BE RETRIEVED THROUGH THE ARGONS.
1750 DRILLER HAS NOT PULLED THE HSA BUT WAS ABLE TO RETRIEVE

CONTINUED PG 16

Location HELSTF Date THURSDAY 5-6-04

Project / Client HELSTF TSA FUEL SPILL INV.
WSMR.

ONE ADDITIONAL 5 FT SECTION NOW THE BIT + (1) FLIGHTS REMAINS IN BORING ≈ 5 FT OF EQUIP

* NOTE: ≈ TWO CARBON STEEL PINS W/ PERHAPS TWO STRIPS OF DUCT TAPE WERE LOST W/IN THE ANTICIPATED SCREEN ZONE POTENTIALLY COMPROMISING THIS WELL LOCATION.

ALSO ≈ 15-20 GALLONS OF TAP WATER HAVE BEEN UTILIZED IN THE ATTEMPT TO RETRIEVE THE INNER RODS 3' BIT.

1800 DRILL CREW TRippin HSA.

1848 LEAD HSA CONTAINED ALL 3 PINS & REMAINS OF 3' TAPE

1830 N.M. ON SITE

1848 LEAD HSA IS PLUGGED W/ CLAY PREVENTING INNER BIT & ROD FROM BEIN RETRIEVED THROUGH THE HSA.

1910 DRILLER TRippin OUT HEX ROD

1920 (INNER ROD) W/ BIT OUT ON SURFACE HOLE IS NOW OPEN. CLOSE UP SITE FOR THE DAY. NORTH WIND WILL EVALUATE WHAT TO DO TOMMORROW.

1930 ALL CREWS OFF SITE FOR THE DAY

DEFILER

Location HELSTF Date ~~THURSDAY~~ FRIDAY 5-7-04

Project / Client HELSTF TSA FUEL SPILL INV.
WSMR

0615/0616 N.M. / JSG DRIVE FROM LAS CRUCES TO HELSTF

0715 DRILL CREW ON SITE.

0730 CK WL in BORIN @ ≈ 84.7 FT BGS. — WATER PERHAPS FROM THE PREVIOUS DAY'S ACTIVITIES TRYING TO RETRIEVE BIT. CK DEPTH OF BORIN @ 86 FT.

0740/0850 DRILL CREW DECONNING 6.25 INCH ID

0880/ LARRY BROOKS ON SITE TO OBSERVE DAYS ACTIVITIES — WILL NOT BE AROUND NEXT WEEK. BUT LONGER WILL BE OUR CONTACT.

0907 OFF SITE

0913 BEGIN TRippin IN 6.25 INCH ID HSA.

1030 CONTACT KICKING @ TRACEANALYSIS ORDER CABLE CUSTODY SEALS / COC's / BOTTLE LABELS. SEND TO WILLIAM / KIRAN

11:12 @ 90 FT DRILLING TO 100 FT.

12:00 PREPARE FOR WELL INSTALLATION AND MEASURE CASING / SCREEN / SUMP.

12:44 DRILLING TO 100 FT.

1300 BEGIN WELL INSTALLATION TAG BOTTOM @ 100.2 BGS

Location HELSTF Date 5-7-04

Project / Client HELSTF TBA FUEL SPILL INVEST.
WSMR

1400 6 Bags (50LB) 10/20 TAG SAND @ 89.5 + 2.2 91.7
1430 @ TOTAL of 12 Bags TAG SAND @ 85.2 FT OUTSIDE OF THE AUGERS. Begin ADDING BENTONITE CHIPS
15:11 2 Bags CHIPS ADDED TAG BENTONITE @ 78 FT BGS. ADD 10 gallons CLEAN WATER TO HYDRATE. DRILLERS Begin Tripping out augers
15:50 JEA CONTACTS RENE w/ update on Progress
15:59 Drillers STILL Tripping out of Borings
1650 CARLY BROOKS on SITE OBSERVING Tripping on Progress DRILLERS SECURING SITE
1745 all CREWS OFF SITE FOR THE DAY

Signature

Location HELSTF Date 5-10-04

Project / Client HELSTF TBA FUEL SPILL INV.
WSMR

0540 NORTHROP JEA/NM on SITE WAITING FOR DRILLERS AND PREPARING FOR DAILY ACTIVITIES
0610 CALIBRATE MINIRAE w/ MULTIGAS AND ISOBUTYLENE 100 ppm TAG # 000452 INSTRUMENT CALIBRATED TO 100 ppm
COOLER READY w/ ICE & TB & TEMP BLANK.
0625 M. DURNER on SITE
0630 RABA-KISTNER CREW Complete JEA PERFORMS TAILGATE H&S BRIEF
0650 PREPARING TO MOBILIZE RIG TO SB-10 Begin C.O.C. / Boring Log Forms
0705 MOBILIZE TO ~~SB-10~~ DECON PAD LOCATION
0710 OK w/ JEA WELL INSTALLED MW HMW-52 @ 100.5 FROM T.O.C UNCUT CASING STICKUP @ .75 ABOVE GROUND SURFACE
0721 FIRE DEPARTMENT ASKS IF DRILLING SUBCONTRACTOR EVER USED WASH PAD - BECAUSE THE DRAIN IS FILLED WITH DIRT.

Location HELSTF Date 5-10-04

Project / Client HELSTF TSA FUEL SPILL INVEST. / WEMR

0730/ UPDATE PHONE CALL TO REAR
0745 DRILLERS PROGRESS / GRA INSTEAD OF DRO / PERSONNEL FOR GRATING ALLOWED ON SITE
0745 RIG LOCATED @ SB 10 ADJACENT FORMER SB-7 LOCATION
0811 DECONING SPLITSPOONS 3, LOADING BRASS SLEEVES.
0830/ DRILL SB-10 LOCATED 3 FT FROM
0950 SB-7 TO 40 FT SAMPLE HLS-42 @ 950.
10:00/ DRILLING / SAMPLING SB-11 LOCATED
12:00 3 FT FROM SB-(10)
12:00 DRILLERS TAKE LUNCH
12:30 BEGIN CLEANING UP PREPARING TO MOVE TO NEXT LOCATION. SB-12 USING HVW-04 LOCATION
1315/ DRILLING SB-12 3RD BORING OF THE
1500 DAY
1505 DRILLERS BEGIN DECONING AND GROUTING OF MW 3, BORING
1530/ J. GILLESPIE / N. MARSH PREPARE
1650 SAMPLE SHIPMENT
1700 ALL CREWS OFF SITE

Location HELSTF Date 5-10-04

Project / Client HELSTF TSA FUEL SPILL INV. / WEMR

3 Borings Completed
SB-10, SB-11; SB 12
3 Duplicates Collected

1 Equipment Blank Collected
001

COC # 001

JSG

Location HELSTF TSA WSMR Date 5-11-04

Project / Client HELSTF TSA FUEL SPILL INVESTIGATION

0600 JG NM on site @ HELSTF
0612 Manny Duran Robert Kistner on site.
0622 Tailgate H&S Briefing
0638 Multigas Calib. Good
Isobutylene 100ppm Reading 100ppm
0647 Drilling SB-13 – SB03
0800 Long from 35-40 Hot ≈1200 ppm Reading
0908 Drilling SB-14 Adjacent Former SB09
10:25 No indication of impact except T-TK
30-35FT Range
10:30 Carmen SHSP on site to let
10:53 Rene Ortiz me concerning
How many borings to complete in one
Day.
11:00 Carmen Barnes on site
11:09 Just to let us know his schedule.
11:15 Drilling @ SB-15 Adjacent
11:42 HVW-03 and Former SB05 Locations
11:42 Take a short break for lunch
12:00 Ck WL in HMW-52 @ 98.02
From BGS.
1220 Resume Drilling William Little
on site. Labs received samples
in good condition

Location HELSTF TSA WSMR Date TUESDAY 5-11-04

Project / Client HELSTF TSA FUEL SPILL INVESTIGATION

1220 Continue to ship to Lubbock TX
Identify 8 RCRA metals on COC
1300 William Little off site Drill crew
Finishes SB-15
1353 Begin Drilling SB-16 3FT
1500 South of (SB04 Previous Former Investigation)
1500 Package Samples COC #002
4 Borings Completed
SB-13, SB-14, SB-15, SB-16
1 Trip Blank
1 Temp Blank
1 Rinsate # 002
1612 Drop cooler w/ FedEx @
Gate Priority Overnight to
Traceanalytical Inc. Lubbock TX
1700 All crews off site for the
Day

Location HELSTF WSMR Date 5-12-04

Project / Client HELSTF TSA Fuel Spill Investigation WSMR / BAE

0612 JEG / NM on site, RABA Kistner personnel on site

0630 Tailgate H&S meeting lifting / hearing / vision conservation gasoline impacted soils / groundwater activities for today. Complete borings SB-17 / SB-18 & begin drilling HMW-51

0640 Calibrate Mini RAE to mixed gas and 100 ppm Isobutylene instrument calibrated reading 95.2 ppm.

0652 / 0830 Drilling SB-17
Headspace from 17 to 42
3.8 – 840 (26.5) – 33 ppm @ 42

0800 / 0842 R. Rodriguez on site to observe activities and to coordinate the replacement driller.
(Training for Joe Garcia @ 1330 Thursday @ Metal Building)

0910 / 11:00 Drilling SB-18

11:06 Drill crew clearing HSA preparation to ream. J. Gillespie checks BZ in work space @ 4.6 ppm. Above the cuttings

Location HELSTF WSMR Date 5-12-04

Project / Client HELSTF TSA Fuel Spill Investigation WSMR BAE.

Weather: Partly 10-15 mph w/ temps in 75-80°

11:30 / 12:00 Lunch then prepare to drill HMW-52 w/ 4.25" ID HSA as a pilot boring to 80 ft

12:30 / Drilling 4.25" ID pilot boring to 80 ft

1328 ck WL in HMW-52 @ 96.14 BGS 99.75 on 5-10-04

1400 Contact RSAC concerning potential for contamination from the perched aquifer to affect well installation of HMW-51

1430 Contact William Lutke and discuss potential: William advises to stay the course with the 4.25" augers to 80 ft; then ream w/ 6.25" HSA from G.S. to the 80 ft depth and onto setting the well. After reaching the target depth be prepared to set well & construct in one day including grouting

1500 Contact RSAC w/ information from William. JEG will contact William tonight @ 18:30 to find

Continued on – PG 26 →

Location HELSTF WSMR Date 5-12-04

Project / Client HELSTF TBA FUEL SPILL INVESTIGATN WSMR / BAE.

OUT IF ANYTHING HAS CHANGED AFTER HIS DISCUSSION w/ GENE FORSYTHE

1530 DRILLERS @ 50 FT w/ 4.25 INID HSA

NOTE: ~~THIS~~ HMW-51 IS THE FIRST MW TO BE INSTALLED BY DRILLING THROUGH THE IMPACTED PERCHED ZONE TO SET A 5 FOOT SCREEN IN THE REGIONAL AQUIFER 6.25" HSA WILL BE USED AS SURFACE CASING TO INSTALL THE MW IN THE REGIONAL AQUIFER. OTHERWISE LARGER DIAMETER SURFACE CASING WOULD NEED TO BE INSTALLED TO SEAL OFF THE PERCHED AQUIFER.

1630 FEDEX PICKED UP COOLER @ SECURITY OFFICE FRONT HELSTF GATE

1700 ALL CREWS OFF SITE FOR THE DAY

JEQ

Location HELSTF WSMR Date 5-12-04

Project / Client HELSTF TBA FUEL SPILL INVESTIGATN WSMR / BAE

1830 PHONE CONVERSATION w/ WILLIAM LITTLE PROGRAM MANAGER FOR BAE OVER THE HELSTF CLEANUP. AFTER CONVERSATION w/ FORSYTHE

- DO NOT INSTALL HMW-51 GRAVEL BOMB TO THE SURFACE (HMW-51)
- CONTACT BRIAN ABBOTT REGARDING LABORATORY

1900 ACTIVITIES COMPLETED WEDNESDAY 5-12-04

- BORINGS SB-17 & SB-18
- 3RD COOLER SHIPMENT COC #003 w/ EQUIPMENT BLANK #3 TRIP BLANK AND TEMP BLANK.
- DRILL w/ 4.25" ID HSA TO ≈ 70 FT SPLITSPOONS COLLECTED TO 67 FT & STOP FOR THE DAY.

1830 CONT. CONTINUED - WILLIAM LITTLE WAS DIRECTED BY GENE FORSYTHE OF THE ENVIRONMENTAL DIRECTORATE TO GRAVEL UP HMW-51 LOCATION DUE TO CONCERNS OVER POTENTIAL FOR CROSS CONTAMINATION DURING WELL INSTALLATION. NO MONEY IN THE BUDGET TO MAKE CHANGES WITH.

Location HELSTF WSMR Date THURSDAY 5-13-04

Project / Client HELSTF TSA FUEL SPILL INVESTIGAT WSMR / BAE

0600 JG/NM on SITE FOR THE DAY REVIEW ACTIVITIES FOR THE DAY.

0614 CK WL in HMW-52 @ 95.17 96.14 on WEDNESDAY -.75

0620 DRILL CREW on SITE FOR THE DAY

0630/0640 TAILGATE H&S BRIEFING TO DISCUSS DAYS ACTIVITIES GRAVITY/DRILLING BACKGROUND BORING, & SAFETY RELATED ISSUES UXO AWARENESS/LIFTING/GRAVEL DUST

0650 J. GILLESPIE TALKS w/ B. DAVIS CONCERNING DRILLER SCHEDULE.

0730 J. GILLESPIE TALKS w/ WILLIAM CONCERNING GRATIN OF BACKGROUND BORING, & SAMPLING OF IDW WASTE

0740/10:30 DRILL CREW CANNOT GET GRAVEL PUMP STARTED. DRILLER TO GET ANOTHER PUMP

0911 DRILLERS DECONTAMIN RIG FOR BACKGROUND BORING

0930 DRILLERS BEGIN SB-19 BACKGROUND LOCATION TEGA CONTACTS RENE w/ INFORMATION CONCERNING BUDGET

Location HELSTF WSMR Date THURSDAY 5-13-04

Project / Client HELSTF TSA FUEL SPILL INVESTIGAT WSMR / BAE

10:30 RK BACK on SITE w/ NEW PUMP & BEGIN PREPARIN TO GRAVEL SB-10 LOCATION. 4 BAGS PER 32 gallon BATCH w/ 3/4 BAG gel.

1104 FIRST BATCH. BORIN SB-19 COMPLETE

11:17 SECOND BATCH. MOBILIZE RIG TO BACKGROUND BORIN SB

11:30 THIRD BATCH GRAVEL TO THE SURFACE IN SB-10

11:43 GRATIN SB-15 LOCATION ADJACENT HMW-03 111 BATCHES (11 BAGS PER)

1240 MIXING & GRATIN SB-16 LOCATION

1300 MIXING GRAVEL FOR SB-11 LOCATION THEN MOVE ASA TO HMW-51 LOCATION TO GRAVEL UP THE BORIN

13:30/14:00 JOE CHAVEZ ALTERNATE DRILLER IN H&S TRAIN.

1422 ALL CREWS MIXING GRAVEL & PULLING HSA FROM HMW-51 BORIN @ 5 BATCHES AND GRAVEL STILL FALLING WAYS INTO POROUS MEDIA BETWEEN 20 AND 30 FT.

Location HELSTF TBA Date THURSDAY 5-13-04

Project / Client HELSTF TBA FUEL Spill INVESTIGATION WSMR / BAE

1600 Drillers Began Grouting SB-13 AND 12 Drill crew Drilling Background Bore. SB-21

1700 Grouting & Tyzon OFF Drill Crew Drilling SB-24

1800 Cleaning up Grouting Equip & Drill Rig Set up on Final Background Bore for tomorrow

1830 M. Duenez to Bring 10 ADDITIONAL Bags of Portland for tomorrow

All crews off site for the Day

Location HELSTF TBA Date FRIDAY 5-14-04

Project / Client HELSTF TBA FUEL SPILL INVESTIGATION WSMR / BAE

0600 NM / JEH on site Badging,

0610 Drillers on site Badging

0615 Tailgate H&S Briefing

0630 Fugitive Dust During Grouting / Proper Lifting Technique / Eye Protection

0630 J. Chavez & N. Mariner Began Drilling Background Locations

J. Gillespie / M. Duenez Grouting of HMW-52 Location J. Gillespie Tags Fall Back in HMW-52 @ ≈ 30 FT B.G.S. Last Tag on Bentonite was 86 FT. May Be Bridged @ 32 FT.

0807 Cell Phone Conversation

1 Comp From 3 Drums Hydrant

- Oil Range Organics 1 oz
- Total Metals 8 oz
- VOC's 1 oz
- Ignitability 1 oz

Hazmin WSMR on Main Post.

John Hunter.

Roll Off Bins

- Analytical From Boreholes.
- Composite For Ignitability

Location HELSTF TSA WSMR Date FRIDAY 5-14-04

Project / Client HELSTF TSA FUEL SPILL INVESTIGATION WSMR / BAF

DECON / PURGE / DISCHARGE WATER

- TO HAZMAT CENTER JOHN HUTTER
- ON SITE LAB
- RUN REGULAR ANALYSIS FOR HAZARDOUS MATERIALS
- NEED BOTTLEWATER REQUIREMENT

CALL REAR: THIS EVENING AFTER LUNCH.

0830 ck w/ DRILLING SUBCONTRACTOR 6 (3 BAG) BATCHES INSTALLED IN HMW-52 LOCATION M. DUENEZ BROUGHT 10 ADDITIONAL BAGS OF PORTLAND TO COMPLETE THE PROJECT.

0912 GRATION SB-18 LOCATION BENNY FLOREZ ON SITE TO DROP BAILER & REPORT/TOWER QUALITY INSTRUMENT FOR DEVELOPMENT OF HMW-52

10:13 DRILLERS GRATION SB-13 LOCATION AND COMPLETE DRILLING THE LAST BACKGROUND BORING BEGIN DECON OF DRILLING RIG. ERIC (DRILLERS HELPER) COMPLAINING OF BACK PAIN OFF SITE FOR THE DAY.

10:29 AVERAGING 2 12 BAGS PER 40 FT BORING

11:15 TOPPING OFF GROUT @ HMW-52 3 BAG BATCH FOR A TOTAL OF 21 BAGS

CONTINUED ON PG #33 →

Location HELSTF TSA WSMR Date FRIDAY 5-14-04

Project / Client HELSTF TSA FUEL SPILL INVEST. WSMR / BAF

BENNY GROUT LEVEL IN HMW-52 TO WITHIN .5FT OF GROUND SURFACE.

11:57 CREW BREAK FOR LUNCH.

12:30 BACK ON SITE.

12:45 DRILLERS DECONNING & CLEANING OUT TRAILER PREPARING TO LOAD SUPPLIES FOR DEMOB.

1544 ALL CREWS OFF SITE FOR THE WEEKEND. MATERIALS LOADED, RIG CLEAN HSA CLEANED ALL SUPPLIES AND EQUIP DEMOBED W/ EXCEPTION OF MATERIALS NEEDED TO COMPLETE PAD @ HMW-52 AND GROUT REMAINING BORE HOLES (BACKGROUND

STEG

Location HELSTF / WSMR Date MONDAY 5-17-04

Project / Client HELSTF TSA FUEL Spill INVESTIGATION WSMR BAF

0720 JEA / NM on site @ FIRST GATE waiting to be BADGED in

0738 JEA / NM INSIDE GATE DRILL CREW NOT on site yet. ROADBLOCKS & GATE CLOSURES scheduled for 0800, 0950, 12:50 & 1450 — UNDERCOVERS scheduled for 1500

0807 CONTACT Lionel Brauns office for CONFIRMATION of UNDERCOVERS. DRIVE TO Lionel Brauns office TO CONFIRM UNDERCOVERS. Lionel STATES THAT IT IS OKAY TO WORK @ TSA FACILITY IN THE open.

0844 DRIVE BACK TO THE TSA collect Composite Sample FROM HYDRAULIC OIL impacted SOIL CONT001, 002, 003 Composite & in Zip Lock Baggie THEN place in 4 oz & 8 oz GLASS JAR.

0900 COLLECT GRAB SAMPLE FOR HAZARD MATERIALS ANALYSIS FROM CONT0006 TWO 1 LITER AMBER JARS.

Location HELSTF / WSMR Date MONDAY 5-17-04

Project / Client HELSTF TSA FUEL Spill INVESTIGATION WSMR / BAF

0915 Collect composite soil sample of Rolloff CONT0005. Collect soil FROM EACH CORNER THEN THE CENTER OF PILE; Composite in Zip Loc Baggie & TRANSFER TO 1 8oz & 1 4oz JAR TO BE Shipped TO TRACE ANALYSIS

0920 COVER CONT0005 w/ Poly TARP

Drill crew on Site JOHNSON / MAUPIN FROM R/K Begin Decomission Decon PAD.

0930 / 0940 TAILGATE BRIEF
- SAFETY glasses when mixing GROUT
- SKID LOADER SAFETY
- FUGITIVE DUST (STAY UPWIND DO NOT BREATHE)

0938 Benning onsite TO PICK up Drums. w/ LOWBOY TRAILER.

10:00 collect Composite sample FROM CONTAINER # CONT0004 FROM 4 LOCATIONS w/in PILE THEN Composite IN Zip Loc BAGGIE. PLACE Composite Sample IN (1) 8oz GLASS JAR & 1 4oz GLASS JAR

Location HELSTF / WSMR Date MONDAY 5-17-04

Project / Client HELSTF TSA FUEL SPILL INVESTIGATION WSMR / BAE

10:20 N.M. / Begin Fleers GPS in Soil Boring Locations 9 Borings + 5 Backup Borings J. Gillespie Responsible C.O.C.

11:50 B. Fleeze off site w/ Drums Then Returns w/ Trailer and Drums because Haz waste gate closed.

12:13 JG / NM Packing coolers w/ ice Deliver Samples to WSMR Lab

1427 Back @ HELSTF taking wls from HVW locations Perched Aquifer

→ No odors or product observed

HVW-03 TOC 29.45 GS 29.85

HVW-01 TOC 18.1 GS 18.26

HVW-04 TOC 28.78 GS 29.16

1500 Gate Locked Facility unoccupied

1517 Begin Development of HVW-02

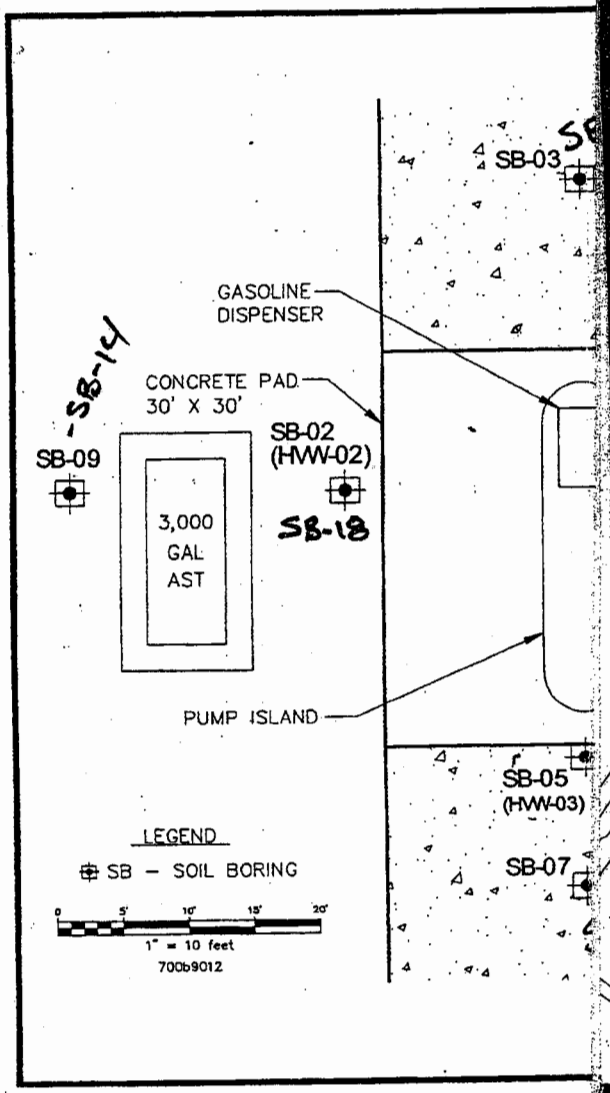
91.82 BTOC – ≈4

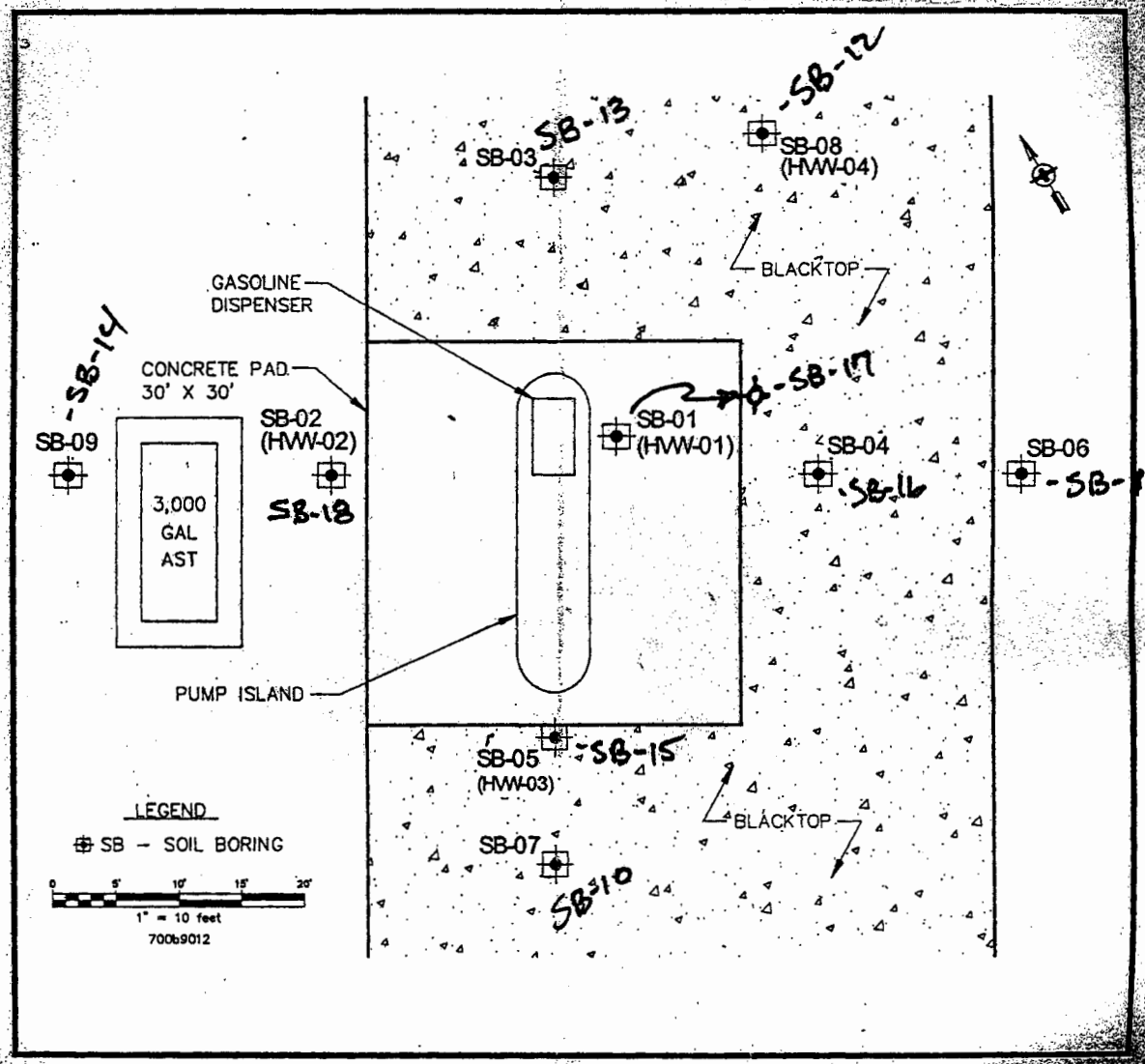
92 BGS

		Cond ×1000	pH	Temp.
1525	≈1 gal	8.28	7.75	88
1528	≈1 gal	8.41	8.04	78.3
1530	≈1 gal	7.77	8.10	76.3
1532	≈1 gal	7.80	8.13	74.6
1533	≈1 gal	8.18	8.10	73.7
1535	≈1 gal	8.01	8.09	73.2
1537	≈1 qt	7.92	8.13	73.2

Location HELSTF/WSMR Date MONDAY 5-17-04

Project / Client HELSTF TSA FUEL SPILL INVESTIGATION WSMR/BAE




SB-03
SB-13
SB-12
SB-08
(HVW-04)
BLACKTOP
GASOLINE
DISPENSER
CONCRETE PAD
30' X 30'
SB-14
SB-09
SB-02
(HVW-02)
SB-18
3,000
GAL
AST
SB-01
(HVW-01)
SB-17
SB-04
SB-16
SB-06
SB-11
PUMP ISLAND
SB-05
(HVW-03)
SB-15
BLACKTOP
SB-07
SB-10
LEGEND
SB - SOIL BORING
0 5' 10' 15' 20'
1" = 10 feet
7006 9012

Location HELSTF / WSMR Date MONDAY 5-17-04

Project / Client HELSTF TSA FUEL SPILL INVESTIGATION WSMR / BAE

10:20 N.M. / Bernie Flores GPS in Soil Boring Locations 9 Borings + 5 Background Borings. J. Gillespie Designation C.O.C.

11:50 B. Flores off site w/ Dennis Then Returns w/ Trailer and Dennis because Haz waste gate closed.

12:13 JG / NM Packing coolers w/ ice. Deliver Samples to WSMR Lab

1427 Back @ HELSTF taking wls from HMW locations penetrated aquifer

HMW-03 TOC 29.45 GS 29.85
HMW-01 TOC 18.1 GS 18.26
HMW-04 TOC 28.78 GS 29.16

→ No odors or product observed

1500 Gate locked facility completely closed

1517 Begin Development of HMW-52
-91.82 BTOC - ≈4
92 BGS

		Cond x1000	pH	Temp
1525	≈1 gal	8.28	7.75	88
1528	≈1 gal	8.41	8.04	78.3
1530	≈1 gal	7.77	8.10	76.3
1532	≈1 gal	7.80	8.13	74.6
1533	≈1 gal	8.18	8.10	73.7
1535	≈1 gal	8.01	8.09	73.2
1537	≈1 qt	7.92	8.13	73.2

Location HELSTF/WSMR Date MONDAY 5-17-04

Project / Client HELSTF TSA FUEL SPILL INVESTIGATION WSMR/BAE

1538 HMW-52 bailed dry, ≈ 1 casing volume.

1543 Drill crew off site for the day. Site cleaned up & photographed.

1600 Waste containers labeled, Rolloff which is full - covered w/ poly tarp. Ready for disposal upon receipt of analytical results.

1630 J.G / NM off site to FEDEX in Las Cruces to deliver IDW waste samples to trace analysis. Field crews to return in two weeks to sample all 4 ground water wells.

HMW-51 location grated to the surface and well installed.

J. Gillespie 5-17-04

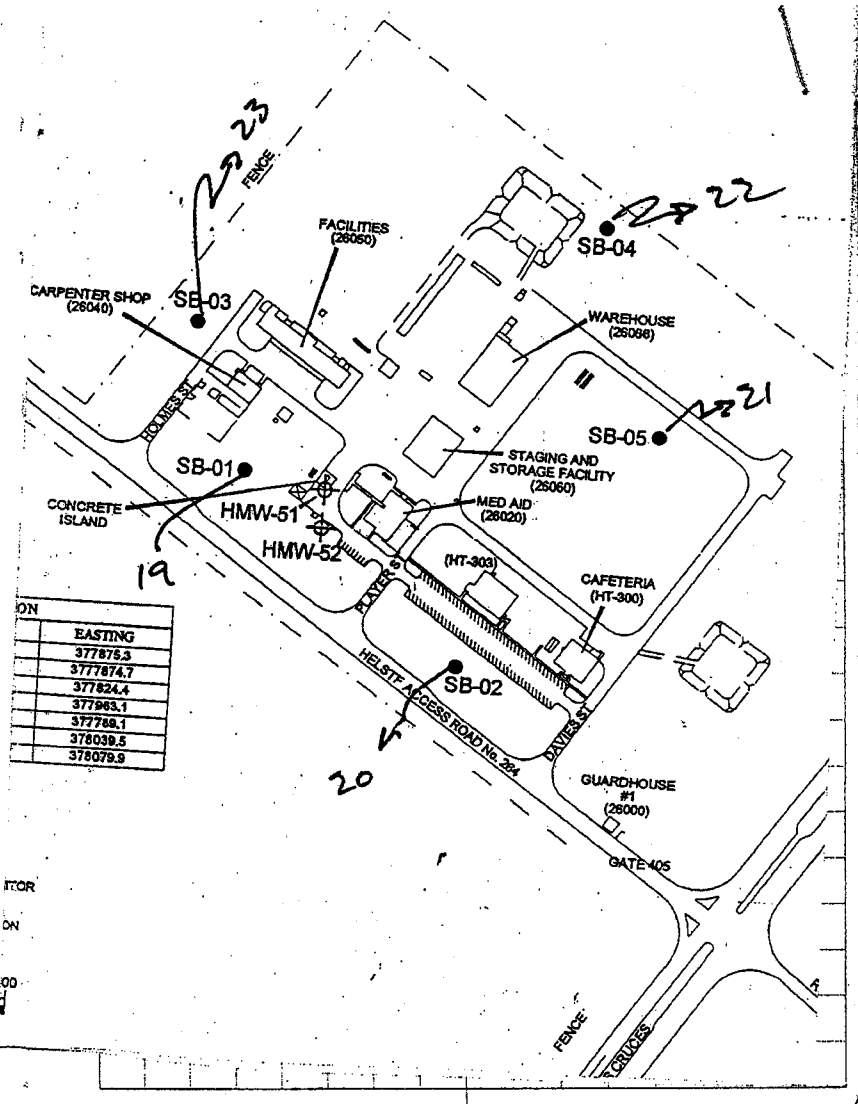
END OF FIELD EFFORT.

Location _____ Date _____

Project / Client _____

Location _____ Date _____

Project / Client Rock Grand Basin Cocoa



Location _____ Date _____

Project / Client _____

Date 6-2-04 Summer

Well ID # HMW-52 Personnel Benny Flores, William Little, Jim Thompson

Air Temp 76 °F Rel Hum 40 %

Weather Cond. Partly Cloudy Breeze winds 5-10 mph

Pump Ø Water Quality Meter

Bailer 1x3 Poly Dep water level Find

Drums 1 55 gal Drum Other Generator

Well TD: 99.79 DTGW (bgs) 91.05

DTW (Toc): 91.05 Water Col. 8.74

Loc: O Col Vol. 5.7

Well Size: 4" Purge Vol. 17.1

Sample Parameters (at Time of Collection)

Ph 6.94 Cond 11.5 Cond Scale m s/cm

Turb 205.0 ntu DO 9.42 ~~205.0 ntu~~ Temp 23.0 °C

Sal 0.7 % TDS 7 g/L ORP 151 mV

Sample Date 6-3-04

" Time 1021

" ID HLSF-TSA-HMW-052-0604

Location _____ Date _____

Project / Client _____

Benny Flores, William Little, Jim Thompson

Date 6-2-04

Time	Vol	Well ID HMW-52				Personnel					Comments
		pH	Cond m s/cm	Turb ntu	DO g/L	Temp °C	Sal %	TDS g/L	ORP mV		
0840	Init	5.31	11.1	222.6	6.93	22.0	0.6	7.92	203		
0945	5	7.20	11.7	272.0	8.74	21.7	0.7	7	157 mV		
1003	8	7.43	11.9	259.0	7.87	22.1	0.7	7	102		
1355	weather	level	98.55								
	allow To	Recovery	and	will	Sample	6-3-04					
6-3-04	DTW (Toc)	96.65									
Set up Equipment	1015	Began	Taking	First	Parameters	1021	Sample Time				
1021	Init	6.94	11.5	205.0	9.42	23.0	0.7	7	151		

Notes 6-2-04 arrived at site. Set up Equipment Setup 1x3 Poly Dip Bailer Began Purging well with Dry Ø 8 gal until Sample 6-3-04

Location _____ Date _____

Project / Client _____

3 hr

Date: 6-2-04. 48 hr Scum

Well ID HMW-52 Personnel Benny Flores, William Little, Jim Thompson

Air Temp 78 °F Rel Hum 42 %

weather Cond Partly Cloudy Breezy 5+10 mph.

Pump #164 water Quality Meter #315

Bailer Ø water level Tape #447

drums 1 55,gal Drum Other Generator

well ID 111.50 DTW (bgs)

DTW (Loc) 93.13 water Col 18.37

Loc Col. Vol. 12.0

well size 4" .653 Purge Vol 36.0

Sample Parameters at Time of Collection

Ph 7.31 Cond 9.48 Cond Scale #3/cm

Turb 2090 NTU DO 6.78 g/L Temp 23.9 °C

Sal 0.5 % TDS 6.0 g/L ~~ORP~~ RD ORP 77 mV

Sample Date: 6-3-04

" Time: 0940

" ID: HLSF-TSA-HMW-048-0604

Location _____ Date _____

Project / Client _____

Date 6-2-04 well ID HMW-52 48 hr Personnel Benny Flores, William Little, Jim Thompson

Time	Vol	pH	Cond	Turb	DO	Temp	TDS	ORP	Comm
0841	Init	5.11	9.13	239.0	2.99	23.5	0.5	239	Clear
0847	5	6.86	9.44	221.0	7.42	23.1	0.5	200	"
0854	10	7.14	8.78	273.0	7.42	23.4	0.5	166	"
0902	15	7.23	9.14	254.0	5.29	23.5	0.5	132	Slight Tint
0909	20	7.27	9.35	223.0	3.46	23.6	0.5	110	"
0917	25	7.28	9.41	237.0	6.99	23.7	0.5	102	"
0924	30	7.30	9.47	167.0	3.81	23.8	0.5	93	"
0931	35	7.31	9.50	212.0	3.38	23.8	0.5	85	"
0938	40	7.31	9.50	183	2.82	23.8	0.5	81	"
0945	45	7.31	9.48	209.0	6.78	23.9	0.5	77	"

Notes 0820 Arrived at Site Setup Equipment 0835 Start Purge 0836

First Water Contact Pump Set @ 225 ft

Location _____ Date _____

Project / Client _____

Date: 6-2-04 ~~B Summa~~ Summa

Well ID: HMW-50 Personnel: Benny Flores, William Little, Jim Thompson

Air Temp 74 °F Rel Hum 40 %

Weather Cond. Partly Cloudy Breezy 5-10 mph

Pump: #164 Water Quality Meter # 315

Bailer: Ø Water Level Ind # 447

Drums: 1 55gal Drum Other Generator

Well TD 113.00 DTW (bgs):

DTW (bgs) 93.03 Water Col: 19.97

LOC Col Vol: 12.7

Well Size 4" Purge Vol: 38.0

Sample Parameters at Time of Collection

Ph 7.35 Cond 10.5 Cond Scale m s/cm

Turb 1.13 NTU DO 7.90 mg/L Temp 25.5 °C

Sal 0.6 % TDS 7 g/L ORP 118 mV

Sample Date 6-2-04

" Time 1041

" ID # HLSF-TSA-HMW-050-0604

HLSF-TSA-HMW-150-0604

Location _____ Date _____

Project / Client _____

Personnel

Date Time	Vol	Ph	Well ID Cond mS/cm	Turb NTU	DO mg/L	Temp °C	Sal %	TDS g/L	ORP mV	Comm
0910	Int	6.95	10.3	162.0	7.23	23.3	0.6	6	172	Water Clear
0919	5	7.26	9.58	206.0	5.41	22.8	0.5	6	154	"
0929	10	7.25	9.60	225.0	5.43	23.7	0.5	6.0	142	"
0939	15	7.29	10.6	196.0	6.41	24.1	0.6	7	132	"
0950	20	7.34	10.4	170.0	7.73	24.8	0.6	6	125	Clear
1005	25	7.41	10.0	228.0	7.32	24.8	0.6	6	124	"
1019	30	7.36	10.1	-10.0	8.41	26.1	0.6	6	113	"
1034	35	7.36	10.5	*123 -10.0	7.84	26.3	0.6	7	119	"
1043	38	7.35	10.5	*1.13	7.80	25.5	0.6	7	118	Clear

Note: 0850 Setup Equipment Start Purge 0904 First water 0906

Set Controls at 228 ml/m

* used Turbidity Meter

1041 Sample Time

Location _____ Date _____

Project / Client _____

Date: 6-2-04 Summ

Well ID: HMW-49 Personnel: Benny Flores, William Little, Jim Thompson

Air Temp: 79 °F Rel Hum 40 %

Weather Cond Partly Cloudy Breeze 5-10 mph.

Pump: # 164 Water Quality Meter # 315

Bailer: Ø Water level Ind # 447

Drums: 1 55 gal Other Generator

Well TD 113.00 DTGW (bgs) ~~19.78~~ 19.78

DTW (bgs) 93.22 water Col ~~93.22~~ 19.78

LOC Col vol 12.9

Well Size 4" Purge vol 38.7

Sample Parameters (at Time of Collection)

Ph: 7.46 Cond: 10.0 Cond Scale: m s/cm

Turb 11.4 ntu DO: 3.89 g/L Temp: 26.7 °C

Sal 0.6 % TDS: 6 g/L ORP: 193 mV

Sample Date: 6-2-04

" Time: 1432

" I.D. #: HLSF-TSA-049-0604

Location _____ Date _____

Project / Client _____

Date 6-2-04 Well ID HMW-49 Personnel: Benny Flores, William Little, Jim Thompson

Time	Vol	PH	Cond m s/cm	Turb ntu	DO g/L	Temp °C	Sal %	TDS g/L	ORP	Comm
1236	Int	5.55	10.2	-1.2	8.15	26.7	0.6	6	193	murky
1241	5	6.75	10.4	8.55	6.03	24.4	0.6	6	166	"
1247	10	7.14	9.30	349.0	4.10	24.2	0.5	5.9	153	"
1253	15	7.27	9.36	163	4.20	24.4	0.5	5.9	147	"
1259	20	7.32	9.81	671	4.87	24.7	0.5	6.2	146	"
1304	25	7.35	10.0	326	3.87	24.0	0.6	6	143	"
1327	30	7.43	10.1	35.6	4.48	25.0	0.6	6	126	clearing
1333	water level @		10.56		4					
1337	35	7.44	10.0	108	4.25	25.1	0.6	6	110	clear
1342	40	7.41	9.99	89.8	9.02	25.1	0.6	6	92	clear
1348										

Notes: 1220 Setup 1230 start Purge - 1223 First water Contact Pump set at TD 113.00 then up 5' (108') * used Turbidity Meter FSA

1307 well Dry 27 gal. allowed to Recharge lowered Pump to 113.

1326 Restart Pump 1432 Sample.

Location HESTF TSA Date 2004

Project / Client HESTF TSA Fuel Spill

Barry Flores Jim Thompson

Well	DTW (Toc)	TD (Toc)	
HMW-48	93.07'	111.43'	
HMW-49	93.22'	113.00'	
HMW-50	93.03'	113.00'	
AMW-52	91.05'	99.79'	Well not surveyed
HVW-03	28.48'	36.53'	Hand bailer found in well
HVW-01	16.51'	20.08'	
HVW-04	27.56'	36.37'	

Location Date

Project / Client

APPENDIX F

Boring Logs

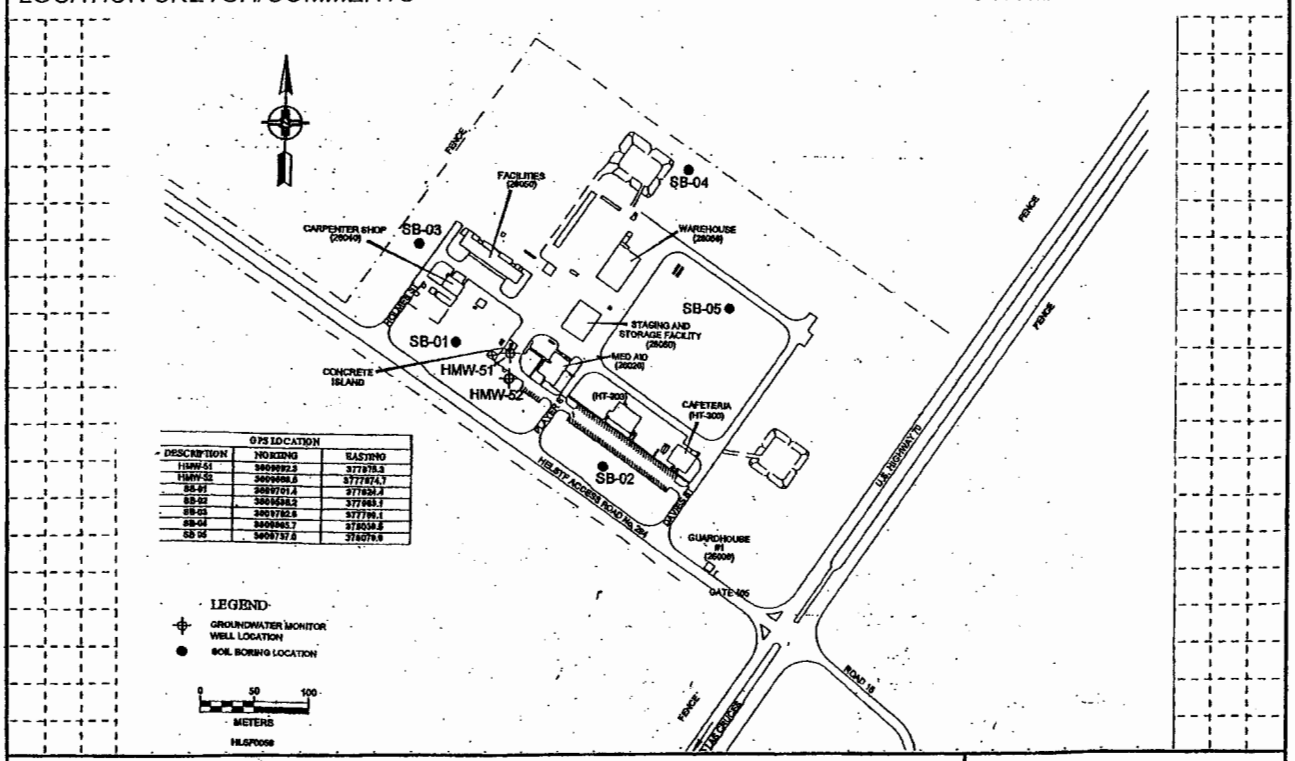
HTRW DRILLING LOG	DISTRICT WSMR	HOLE NO. HMW-51
1. COMPANY NAME NORTH WIND, INC.	2. DRILLING SUBCONTRACTOR RABA KISTNER	SHEET 1 OF 8 SHEETS
3. PROJECT HELSTF TSA FUEL SPILL INVESTIGATION	4. LOCATION HELSTF TSA	
5. NAME OF DRILLER MANNY DUENEZ	6. MANUFACTURER'S DESIGNATION OF DRILL CME 75	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME 75; 4 1/4" INCH ID HSA, 5 FOOT LENGTH FLIGHTS, INNER BIT W/HEX RODS	8. HOLE LOCATION SE CORNER OF CEMENT PAD IN ASPHALT AREA	
GPS HANDHELD N. 3609698 E. 377874	9. SURFACE ELEVATION T.B.D	
	10. DATE STARTED 5-12-04	11. DATE COMPLETED 5-13-04
12. OVERBURDEN THICKNESS ≈ 90 FT	15. DEPTH GROUNDWATER ENCOUNTERED ≈ 25 FT	
13. DEPTH DRILLED INTO ROCK N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED N/A	
14. TOTAL DEPTH OF HOLE 70 FT	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) N/A	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
N/A	N/A	N/A	N/A

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
N/A	N/A	N/A	N/A	N/A	N/A	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	GROUTED	NOT INSTALLED	N/A.	N MAIMER

LOCATION SKETCH/COMMENTS SCALE:



PROJECT	HOLE NO.
HELSTF TSA FUEL SPILL INVESTIGATION	HMW-51

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: HMW-51

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: N MAIMER

SHEET 2 SHEETS 8

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	ASPHALT, SAND AND GRAVEL ROAD BASE					BEGIN: 1238
	1						
	2						
	3						
	4						END: 1240
	5	SILT (ML), MEDIUM, DRY, YELLOWISH BROWN (10 YR 5/4), MOSTLY SILT WITH LITTLE GYPSUM, PALE BROWN (10 YR 8/3)	0.0 ppm	N/A	N/A	4	BEGIN: 1256
						9	
	6					9	
						12	
	7						
	8						
	9						
	10						END: 1258

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. HMW-51

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: HMW-51

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: N. MAIMER

SHEET 3 OF 8 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	10	SILT (ML), AS ABOVE (A/A)	0.0 ppm				5	BEGIN: 1305
							10	
	11						11	
							16	
	12							
	13							
	14							
	15							END: 1310
		POORLY GRADED SAND (SP), MEDIUM, DRY, BROWN (7.5YR 5/4), MOSTLY FINE SAND.	0.0 ppm				5	BEGIN: 1321
							10	
	16						16	
							21	
	17							
	18							
	19							
	20							END: 1325

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. HMW-51

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: HMW-51

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: N. MAIMER

SHEET 4 OF 8 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	POORLY SORTED SAND (SP), A/A, SLIGHTLY MOIST	0.9 ppm			11	BEGIN: 1338
						28	
	21					44	
						41	
	22						
	23						
	24						END: 1341
	25	SILT (ML), SOFT, MOIST, YELLOWISH BROWN (10YR 5/4), MOSTLY SILT, SOME CLAY.	9.0 ppm			2	BEGIN: 1358
		CLAY (CL), MEDIUM, MOIST, STRONG BROWN (7.5YR 4/6), MOSTLY CLAY, LITTLE SILT.				4	
	26					6	
						9	
	27						
	28						
	29						
	30						END: 1400

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. HMW-51

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: HMW-51

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: N. MAIMER

SHEET 5 OF 8 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	30	SANDY LEAN CL (CL), STIFF, MOIST, BROWN (7.5 YR 5/4), MOSTLY CLAY, LITTLE TO SOME FINE SAND.	6.8 ppm			3	BEGIN: 1413
						9	
	31					12	
		LEAN CLAY (CL), STIFF, MOIST, BROWN (7.5 YR 5/4), MOSTLY CLAY, SOME GYPSUM CRYSTALS				16	CRYSTALS: 2-10mm E.
	32						
	33						
	34						END: 1415
	35	LEAN CLAY (CL), A/A	3.9 ppm			2	BEGIN: 1424
						8	
	36					13	
						15	
	37						
	38						
	39						
	40						END: 1427

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. HMW-51

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: HMW-51

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: N. MAIMER

SHEET 6 OF 8 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	40	LEAN CLAY (CL), STIFF, MOIST, BROWN (7.5 YR 5/4), MOSTLY CLAY, TRACE SILT.	116 ppm			6	BEGIN: 1451
						10	
	41					11	
						14	
	42						
	43						
	44						END: 1455
	45	LEAN CLAY (CL), A/A.	16.8 ppm			4	BEGIN: 1507
						6	
	46					12	
						15	
	47						
	48						
	49						
	50						END: 1511

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. HMW-51

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: HMW-51

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: N. MAIMER

SHEET 7 OF 8 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	50	LEAN CLAY (CL), A/A	8.6 ppm			4	BEGIN: 1530
		SANDY LEAN CLAY (CL), STIFF, DRY, LIGHT YELLOWISH BROWN (2.5 YR 6/4), MOSTLY CLAY, SOME SAND.				12	
	51	LEAN CLAY (CL), STIFF, DRY, BROWN, (7.5 YR 5/4), MOSTLY CLAY, FEW SILT, SLIGHTLY LAMINATED.				16	
						13	
	52						
	53						
	54						END: 1535
	55	LEAN CLAY (CL), A/A	6.3 ppm			7	BEGIN: 1549
						12	
	56					12	
						15	
	57						
	58						
	59						
	60						END: 1553

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. HMW-51

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: HMW-51

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: N. MAIMER

SHEET 8 OF 8 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	60	LEAN CLAY (CL), A/A	9.1 ppm			8	BEGIN: 1608
						24	
	61	SILT (ML), STIFF, DRY, YELLOWISH BROWN (10 YR 5/4), MOSTLY SILT, SOME CLAY, SLIGHT BEDDING, SOME SAND.				30	
						25	
	62						
	63						
	64						END: 1614
	65	POORLY SORTED SAND (SP), MEDIUM, DRY, BROWN (7.5 YR 5/4), MOSTLY VERY FINE SAND, SOME SILT.				7	BEGIN: 1628
						15	
	66					18	
						20	
	67						
	68						
	69						
	70	Bottom of Boring @ 70 FT					END: 1633

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. HMW-51

HTRW DRILLING LOG

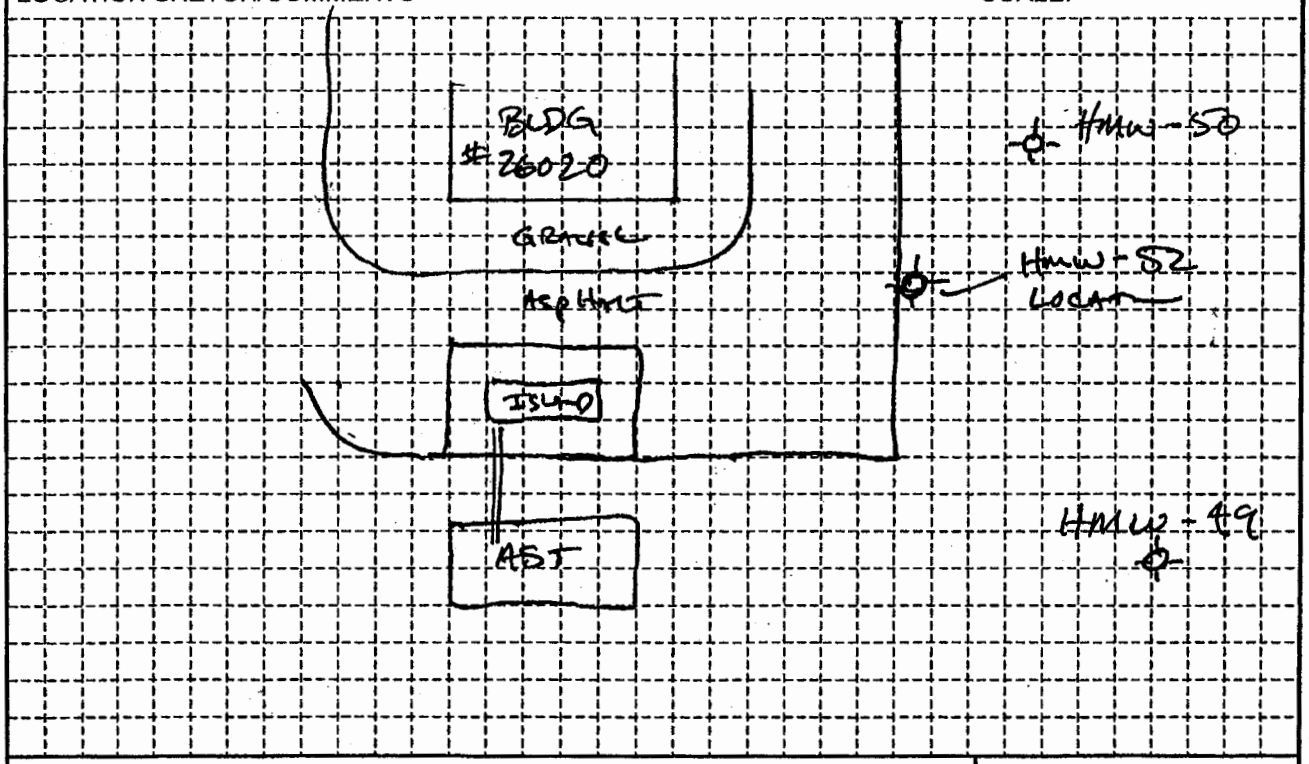
DISTRICT: WSMR	HOLE NO.: HMW-52	
1. COMPANY NAME: NORTH WIND	2. DRILLING SUBCONTRACTOR: RAZBA KISTNER	SHEET 1 OF 11 SHEETS
3. PROJECT: HELSTF TSA FUEL SPILL	4. LOCATION: HELSTF TSA	
5. NAME OF DRILLER: MANUEL DUENEZ	6. MANUFACTURER'S DESIGNATION OF DRILL: CME 75	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME 75; 6.1/4 INCH ID HSA 5' FLIGHTS; INNER BIT W/ A/W RODS	8. HOLE LOCATION: DOWN GRADIENT OF PAD	
HANDHELD GPS ~~N 3700~~ N 3609674 E 377874	9. SURFACE ELEVATION: T.B.D.	
	10. DATE STARTED: 5-4-04	11. DATE COMPLETED: 5-7-04
12. OVERBURDEN THICKNESS: ≈ 90 FT	15. DEPTH GROUNDWATER ENCOUNTERED: ≈ 90 FT	
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: 5/10/04 100.5 TOC ~~N/A~~ ~~AGRAVED~~ 5-17-04 91.82 TOC	
14. TOTAL DEPTH OF HOLE: 100.5 BGS	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): N	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
	SIEVE ~~88~~-92	N/A	N/A

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
~~N/A~~ Sa	N/A	N/A	N/A	N/A	N/A	%

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	N/A	HMW-52	N/A	JE Gillen

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
HELSTF TSA FUEL SPILL	HMW-52

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: HMW-52

PROJECT: HELSTF TSA

INSPECTOR: JE GILLESPIE

SHEET 2 SHEETS 11

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	SAND / GRAVEL BACKFILL ROAD BASE					
	1						
	2						
	3						
	4						
	5	SILT (ML) DENSE, DRY, DARK YELLOWISH BRN 10YR 5/4 W/ VERY PALE BRN 10YR 8/3 (Gypsum) MOSTLY SILT, SOME Gypsum CRYSTALS, VERY SLIGHT BEDDING	0.0	N/A	N/A	13 16 18 17	S-1 5/7 FT
	6						
	7	LESS Gypsum GRADING INTO MARL SILT W/ FINE SAND MOIST DARK YELLOWISH BRN.					
	8						
	9						
	10						

PROJECT: HELSTF TSA

HOLE NO. HMW-52

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: HMW-52

PROJECT: HELSTF TSA

INSPECTOR: J. GILLESPIE

SHEET 3 OF SHEETS 11

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
5'2	10–11	CLAY (CL) MEDIUM, DRY STRONG BROWN 7.5YR 4/6, MOSTLY CLAY, LITTLE FINE SAND, SILT, LITTLE TO SOME GYPSUM CRYSTALS 1-2mm AND FILLING VOIDS (DESICATION CRACKS?) TRACE BLACK organics NO BEDDING	NO INDICATION OF STAINING OR ODOR	N/A	N/A	1, 7, 14, 14	
	12						
	13						
	14	HARD DRILLING @ ≈14					ADD WATER TO GET CUTTINGS TO COME UP.
		14:41/1453 DRILLER ON PHONE. BREIPLY					CENTER BIT LOST / GO FISHING
5'3	15–16	SAND (SP) POORLY GRADED, LOOSE, DRY, 7.5YR 5/4 BROWN, MOSTLY SAND. GRADING INTO CLAY/ SILTY CLAY @ 17	NO INDICATION OF STAINING OR ODOR			6, 9, 16, 20	
	17						ADD WATER TO RETRIEVE CUTTINGS.
	18	NO CUTTINGS					
	19	SMOOTH DRILLING					
1505	20						

PROJECT: HELSTF TSA FUEL SPILL

HOLE NO. HMW-52

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: HMW-52

PROJECT: HELSTF TSA

INSPECTOR: JEGilmer

SHEET 4 OF SHEETS 11

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
1505	20	SAND (SP) MED. DENSE, MOIST REDDISH YELLOW 7.5YR 6/6, MOSTLY FINE SAND, LITTLE - FEW SILT, LAYER OF GYPSUM CRYSTALS IN SHOE. TIGHTER MATERIAL PERHAPS GRADING TO A SILT? / FINE SAND W/ CLAY FRACTION	NO INDICATION OF STAIN OR ODOR	N/A	N/A	10 17 23 10	Cuttings are Sand. Fine Sand Loose Dry. MED. DENSE. 15:20 Begin
	22						
	23	SLOW Drilling FEW Fine sand w/ clay & Fine gravel - moist TRACE STAIN LESS cuttings NO ODOR.					Adding ≈1-2 gal H_2O to get cuttings to surface
	29						END 1532 @ 25.0
	25	SAND LEAN CLAY (CL) MOIST STIFF, BROWN 7.5YR 5/4 MOSTLY CLAY, LITTLE TO SOME FINE SAND, TRACE gypsum CRYSTALS	NO ODOR OR STAIN	N/A	N/A	2 4 10 12	BEGIN 15:45
	26	FINE SAND, MED. LOOSE, MOIST					
	27						
	28	Easy Drilling					
	29						
	30						

PROJECT: HELSTF TSA

HOLE NO. HMW-52

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: HMW-52

PROJECT: HELSTF

INSPECTOR: J E Gilmer

SHEET 5 OF 11 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	30	LEAN CLAY (CL) MOIST-DRY STIFF, BROWN 7.5YR 5/4 MOSTLY CLAY, FEW-TRACE FINE SAND, SLIGHTLY LAMINATED	NO ODOR OR EVIDENCE OF STAIN			5 8	15:50 END. 1606 Begin
56	31	GRADING TO A MOIST FINE SAND W/ TRACE SILT @ 32 FT		N/A	N/A	9 14	- ADDING 1-2 gal H_2O TO RETRIEVE CUTTINGS
	32						
	33						
	34						
	35						@35 16:12
		LEAN CLAY (CL) DRY, STIFF, BROWN 7.5YR 5/4 MOSTLY CLAY, FEW-TRACE FINE SAND, NO LAMINATION	NO ODOR OR EVIDENCE OF STAIN			6 10	BEGIN 16:30 NO EVIDENCE OF PERCHED WATER
57	36			N/A	N/A	12 15	- ADDING 1-2 gal H_2O TO RETRIEVE CUTTINGS
	37						
		LEAN CLAY (CL) SLOW DRILLING.					
	38						
	39						
	40						

PROJECT: HELSTF TSA

HOLE NO.: HMW-52

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: HMW-52

PROJECT: HELSTF TSA

INSPECTOR: J. EGILLER

SHEET 6 SHEETS 11

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
							1637 @ 40 FT
	40	LEAN CLAY (CL) DRY, STIFF, BROWN 7.5YR 5/3, MOSTLY CLAY, MASSIVE TO SLIGHTLY LAMINATED.	NO ODOR OR EVIDENCE OF STAIN	N/A	N/A	5	1654 BEGIN
8						3	
5	41					15	
		POORLY GRADED SAND (SP), MOIST, MEDIUM, LIGHT BROWN 7.5YR 6/3, MOSTLY V. FINE SAND, TRACE SILT				18	
	42						
	43						
	44						
	45						1705 @ 45 ~~END OF DAY~~
		SILTY SAND (ML), DRY, DENSE, PINKISH GRAY, 7.5YR 7/2, MOSTLY FINE SAND WITH LITTLE TO SOME SILT — THIN CLAY LENS. @ 46	NO ODOR OR EVIDENCE	N/A	N/A	11	1720 BEGIN
9	46					30	
5						20	
		LEAN CLAY (CL), DRY, STIFF, BROWN 7.5YR 5/3 MOSTLY CLAY				23	
	47	SILTY SAND. SAME AS 45-46					
	48	SLOW DRILLING					
	49	GRAVELLY GRINDING DRILLING IN .5FT					
	50	HARD SMOOTH DRILLING @ 48 FT					

PROJECT: HELSTF TSA

HOLE NO. HMW-52

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: HMW-52

PROJECT: HELSTF TSA

INSPECTOR: J. GILLESPIE

SHEET 7 OF 11 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h) 1539 @ 50
S-10	50	LEAN CLAY (CL) DRY, STIFF, BROWN 7.5YR 5/3, MOSTLY CLAY, TRACE FINE SAND SLIGHTLY LAMINATED	NO ODOR OR STAINING	N/A	N/A	3	END OF DAY 5-4-04 TUESDAY. 12:20 WED 5-5-04
	51					22	
		~~POORLY GRADED SAND W/ CLAY SAND & LEAN CLAY (SP)~~, MOIST, MEDIUM DENSE, LIGHT GRAY 2.5Y 7/2, MOSTLY FINE SAND, LITTLE CLAY.	SP-SC			21	
	52						
	53						
	54						1328 BEGIN
S-11	55	POORLY GRADED SAND W/ CLAY (SP-SC). STIFF, MOIST-DRY YELLOWISH BROWN. 10YR 5/8, MOSTLY FINE SAND W/ SOME CLAY LITTLE SILT MASSIVE NO STRUCTURE.	NO ODOR NO STAINING	N/A	N/A	7	B. DAVIS W. LITTLE ON SITE.
	56					12	
						23	
						24	
	57	HARD DRILLING					
	58						
	59						1350. DRILL RIG BUSTS HYDRAULIC LINE.
	60	GRINDING @ 60					

PROJECT: HELSTF TSA

HOLE NO.: HMW-52

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: HMW-52

PROJECT: HELSTF TSA

INSPECTOR: TEGilliam

SHEET 8 OF SHEETS 11

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
							1530 @ 60 FT
5-12	60	LEAN CLAY (CL) STIFF, MOIST - DRY, STRONG BROWN 7.5YR 4/6, MOSTLY CLAY, LITTLE TO FEW FINE SAND.	NO ODOR NO STAINING	N/A	N/A	6 10 20 22	1553 BEGIN.
	61						
	62	STIFF HARD DRILLING					
	63						ADD - 2-3 gal H_2O TO REDUCE CUTTINGS.
	64						
	65						1629 @ 65
5-13	65	LEAN CLAY (CL) STIFF, DRY, STRONG BROWN 7.5YR 4/6, MOSTLY CLAY LITTLE TO FEW FINE SAND	NO ODOR NO STAINING	N/A	N/A	5 11 22 23	ADD 4 GALLONS OF H_2O DOWN HSA ALSO REPLACE TEETH ON INNER BIT. 5 HRS. 1700 DRILLING FROM 65 TO 70
	66	SILT W/ SAND (ML), MEDIUM DRY, MOSTLY FINE SAND SOME SILT					
		LEAN CLAY (CL) SAME AS @ 65 TO 66 FT.					
	67						
	68	EASIER DRILLING W/ NEW TEETH ON THE INNER BIT.					
	69						
	70						

PROJECT: HELSTF TSA FUEL SPILL

HOLE NO.: HMW-52

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: HMW-52

PROJECT: HELSTF TSA

INSPECTOR: J E GILLESPIE

SHEET 9 OF SHEETS 11

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
S-14	70	POORLY SORTED SAND (SP), MEDIUM, MOIST-DRY, PINKISH GRAY 7.5YR 7/2, MOSTLY FINE SAND, LITTLE SILT.	NO ODOR	N/A	N/A	13	17:15 @ 70 FT 17:38 DRILLING TO 75
	71	LEAN CLAY (CL) MOIST, STIFF, BROWN 7.5YR 5/4, MOSTLY CLAY, FINE SAND THIN LAYERS, MOTTLED ORANGE / BROWN STAINING	NO INDICATION OF STAINING			15 18 17	THIN SAND LENSES WITHIN CLAY SLICES SMOOTHLY W/ KNIFE OR BREAKS W/ CONCHOIDAL FRAC.
	72						ADD 3 GAL H_2O
	73						
	74						
	75						17:43 @ 75
S-15	76	LEAN CLAY (CL), STIFF, MOIST, BROWN 7.5YR 5/4, MOSTLY CLAY, (1) 1-2 INCH SANDY CLAY LENS 75-76 AREA. GRADING TO A SANDY CLAY @ 76-77 MOIST - SLIGHT MOTTLING	NO INDICATION OF IMPACT	N/A	N/A	5 7 15 19	ADD 3 GAL H_2O ON OUTSIDE OF ITSA. TO RETRIEVE CUTTINGS 18:10 DRILLING TO 80 FT.
	77						
	78	EASY DRILLING					
	79						ADD 10 GALLONS H_2O
	80						18:13 @ 80 FT

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. HMW-52

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: HMW-52

PROJECT: HELSTF TSA

INSPECTOR: JEGulleson

SHEET 10 OF 11 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
								1813@80
5-16	80	LEAN CLAY (CL), STIFF, MOIST, BROWN AS ABOVE	NO INDICATION OF IMPACT	N/A	N/A	N/A	10	1854 80-85
	81	POORLY GRADED SAND WITH CLAY (SP, SC), MEDIUM, MOIST, SLIGHTLY PLASTIC, MOSTLY VERY FINE SAND, SOME CLAY, LITTLE SILT					15 10 18	
	82							
	83	FAST DRILLING SOFTER MATERIALS NO WATER ADDED INITIALLY.						
	84							1900 E.O.D. 5-5-04 1858@85FT
5-17	85	POORLY GRADED SAND WITH CLAY, (SP,SC), MEDIUM, MOIST, MOSTLY VERY FINE SAND, SOME CLAY, FEW SILT, YELLOWISH BROWN (10 YR 5/8)					7 12	06/1035 BEGIN INCREASING SILT CONTENT W/DEPTH
	86						13 22	
	87							
	88							ADDED ≈ 2 GALS H_2O ON OUTSIDE OF AUGERS TO RETRIEVE CUTTINGS.
	89							1110: ADDED ≈ 2 GALS H_2O TO RETRIEVE CUTTINGS.
	90							06/1057 @ 90 FT

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO.: HMW-52

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: HMW-52

PROJECT: HELSTF TSA

INSPECTOR: [illegible] Gilles / N. Manker

SHEET 11 OF SHEETS 11

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
5-18	90	~~POORLY GRADED SAND WITH CLAY (SP/SC), MEDIUM, MOIST, YELLOWISH BROWN~~					NOTE: @ 90 FT Began PROBLEM. COULD NOT RETRIEVE INNER BIT/ROD FROM 11:30 - 1900 FINALLY RETRIEVED ALL TOOLS FROM BORE. E.O.D @ 1930
	91	NO SAMPLE COLLECTED. COULD NOT PULL INNER BIT FROM INSIDE 6.25" HSA.	NO INDICATION OF IMPACT	N/A	N/A		
	92	NOTE: LOSS OF CORE FOR ARCHIVE OR SIEVE ANALYSIS DUE TO DRILLING PROBLEM FROM 90 - 95					~~NO INDICATION OF~~
	93						
	94						
	95	LEAN CLAY (CL) STIFF, MOIST SLIGHT PLASTICITY, BROWN 7.5YR 4/4, MOSTLY CLAY, TRACE FINE SAND				6	
5-19	96	POORLY GRADED SAND W/ CLAY (SP/SC) MEDIUM DENSE, MOIST, BROWN 7.5YR 4/4	NO INDICATION OF IMPACT	N/A	N/A	10 15 16	
	97						
	98						
	99						
	100	TOTAL DEPTH @ 100.5 FT					

PROJECT

HOLE NO.

HTRW DRILLING LOG

DISTRICT		HOLE NO. SB-10
1. COMPANY NAME: NORTHWIND / BAE	2. DRILLING SUBCONTRACTOR: RABA KISTNER	SHEET 1 OF 6 SHEETS
3. PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION	4. LOCATION: ADJACENT (2000) SB-7 LOCATION	
5. NAME OF DRILLER: MANNY DUENEZ	6. MANUFACTURER'S DESIGNATION OF DRILL: CME 75	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4.25 INCH ID HSA W/ STANDARD SPLITS	8. HOLE LOCATION: SB-10 ADJACENT 2000 LOCATION SB-7	
SPOON TECHNIQUE ON 5 FT INTERVALS SOIL SAMPLES FOR CHEMICAL ANALYSIS COLLECTED IN 1½" BRASS SLEEVES 6" LONG	9. SURFACE ELEVATION: T.B.D	
	10. DATE STARTED: 5-10-04	11. DATE COMPLETED:
12. OVERBURDEN THICKNESS: N/A	15. DEPTH GROUNDWATER ENCOUNTERED: ~ 25 FT — 30 FT	
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: N/A	
14. TOTAL DEPTH OF HOLE: 40 FT	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): N/A	

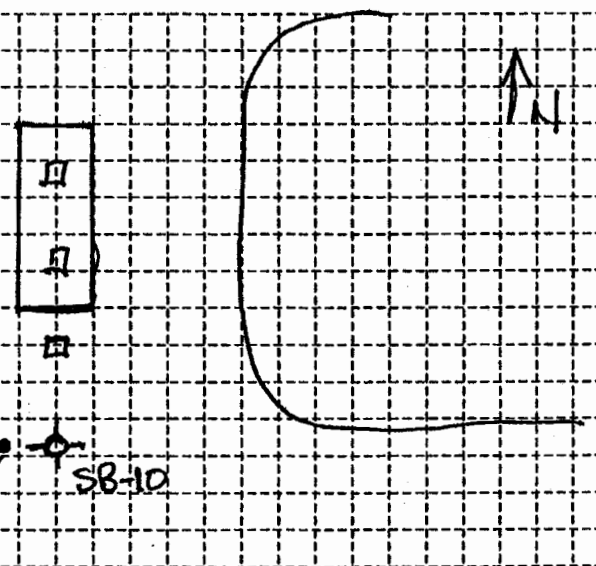
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
	N/A	N/A	N/A

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC/SVOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	✓	TOTAL	GRO	N/A	N/A	N/A %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	GRAVEL	N/A	~~GRAVEL~~	[signature]

LOCATION SKETCH/COMMENTS — SCALE:

GPS COORDINATES
N 3699692
E 377862



PROJECT	HOLE NO.
HELSTF TSA FUEL Spill	SB-10

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-10

PROJECT: HELSTF TBA Fuel Spill

INSPECTOR: J Gillespie

SHEET 2 SHEETS 6

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0							0820
	1							
	2							
	3							
	4							
	5	Clay Loam (CL) (Stiff) Dry, Brown. 2.5Y2.5/4, Mostly clay with some Gypsum.	0.00ppm	N/A	N/A		7 10 15 14	
	6							VOC/SVOC/METALS @ 6.5-7.0 0830
	7							
	8							
	9							
	10							

PROJECT: HELSTF TBA Fuel Spill INV.

HOLE NO. SB-10

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-10

PROJECT: HELSTF TSA

INSPECTOR: JEGallen

SHEET 3 OF SHEETS 6

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	10	Poorly Graded Sand (SP) Loose Dry, Strong Brown 7.5YR 5/6 Mostly Fine Sand, Little Silt	0.00ppm	N/A	N/A		6 12 14 15	VOC, SVOC, METALS 11.5-12.0
	11							
	12							
	13							
	14							
	15	Poorly Graded Sand (SP) Loose, Dry, 7.5YR 6/4 Lt Brown, Mostly Fine-Medium Sand, Few-Trace Silt.	0.00ppm	N/A	N/A	N/A	5 15 12 14	VOC, SVOC/ METALS 16.5-17.0
	16							
	17							
	18							
	19							
	20							

PROJECT: HELSTF TSA

HOLE NO.

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-10

PROJECT: HGLSTF TSA

INSPECTOR: [illegible]

SHEET 4 OF SHEETS 6

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	POORLY GRADED SAND (SP), LOOSE, SATURATED. LIGHT BROWN 7.5YR 6/4, MOSTLY MEDIUM TO FINE SAND.					11 20	SATURATED CONDITIONS 20.5-21.5
	21		1.0 ppm	N/A	N/A	N/A	20	
		LEAN CLAY (CL) STIFF, DRY STRONG BROWN 7.5YR 5/6 MOSTLY CLAY, LITTLE FINE SAND					18	GRO VOC/SVOC/METALS 21.5-22.0 0900
	22							
	23							
	24							
	25	LEAN CLAY (CL) AS ABOVE					4	
		POORLY GRADED SAND (SP) LOOSE SATURATED, LT BROWN 7.5YR 6/4 MOSTLY FINE SAND, LITTLE TO FINE SILT					11	
	26		5.0 ppm HEADSPACE	N/A	N/A	N/A	10	
		LEAN CLAY (CL) AS ABOVE INCREASED SILT CONTENT @ 27.0					10	GRO VOC/SVOC/METALS (26.5-27) 0916
	27							
	28							
	29							
	30							

PROJECT: HGLSTF TSA FUEL SPILL

HOLE NO. SB 10

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-10

PROJECT: HELSTF TSA

INSPECTOR: JEGILLESPIE

SHEET 5 OF 6 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	30	POORLY GRADED SAND WITH CLAY (SP-SC), MEDIUM, MOIST-SATURATED, STRONG BROWN 7.5YR 5/5, MOSTLY FINE SAND, LITTLE-SOME CLAY TRACE SILT				5	
						10	
	31		0.00ppm			15	
		LEAN CLAY (CL), STIFF, MOIST, STRONG BROWN, 7.5YR 5/4, MOSTLY CLAY, LITTLE GYPSUM SLIGHT PLASTICITY				14	GRO/VOC/SVOC/METALS 0930 31.5-32
	32						
	33						
	34						
	35	LEAN CLAY (CL) MEDIUM, MOIST, STRONG BROWN, 7.5YR 5/6 MOSTLY CLAY, LITTLE GYPSUM, FEW SAND/CLAY LENS GRAY/ORANGE STRAWS GYPSUM @ 36				5	
						5	
	36		0.00ppm			10	
		SPOON IS WET				15	GRO/SVOC/ 0940 VOC/METALS 36.5-37.0
	37						
	38						
	39	WET SATURATED CUTTINGS AT THE SURFACE					
	40						

PROJECT: HELSTF TSA FUEL SPILL

HOLE NO. SB-10

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-10

PROJECT: HELSTF

INSPECTOR: J.E.G. [illegible]

SHEET 6 OF SHEETS 6

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	40	LEAN CLAY (CL) STIFF MOIST, STRONG BROWN 7.5YR 5/6, MOSTLY CLAY, LITTLE STRINGER OF GYPSUM RUNNING VERTICAL THROUGH CORE	0.0 ppm	N/A	N/A	N/A	7	
							9	
	41						11	
							13	GRO/ 40C/ 8VOC/ MS/MSD 0950 41.5-42
	42	Bottom of Exploration @ 42 FT. Drill 4.25 inch ID HSA to 40 FT.						

PROJECT: HELSTF TSA Fuel Spill Investigation

HOLE NO. SB-10

HTRW DRILLING LOG

DISTRICT		HOLE NO. SB-11
1. COMPANY NAME: NORTH WIND	2. DRILLING SUBCONTRACTOR: RABA KISTNER	SHEET 1 OF 6 SHEETS
3. PROJECT: HELSTF TSA Fuel Spill Project	4. LOCATION: WSMR	
5. NAME OF DRILLER: MANNY DURAN	6. MANUFACTURER'S DESIGNATION OF DRILL: CME 75	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4.25 INCH ID HSA W/ STANDARD SPLIT SPOON TECHNIQUES SAMPLES FOR CHEMICAL ANALYSIS COLLECTED IN BRASS SLEEVES	8. HOLE LOCATION: ADJACENT FORMER BORE SB-06	
	9. SURFACE ELEVATION: T.B.D	
	10. DATE STARTED: 5-10-04	11. DATE COMPLETED: 5-10-04
12. OVERBURDEN THICKNESS:	15. DEPTH GROUNDWATER ENCOUNTERED: ≈ 25-30 FT	
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: N/A	
14. TOTAL DEPTH OF HOLE: 40 FT	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): N/A	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
N/A	N/A	N/A	N/A

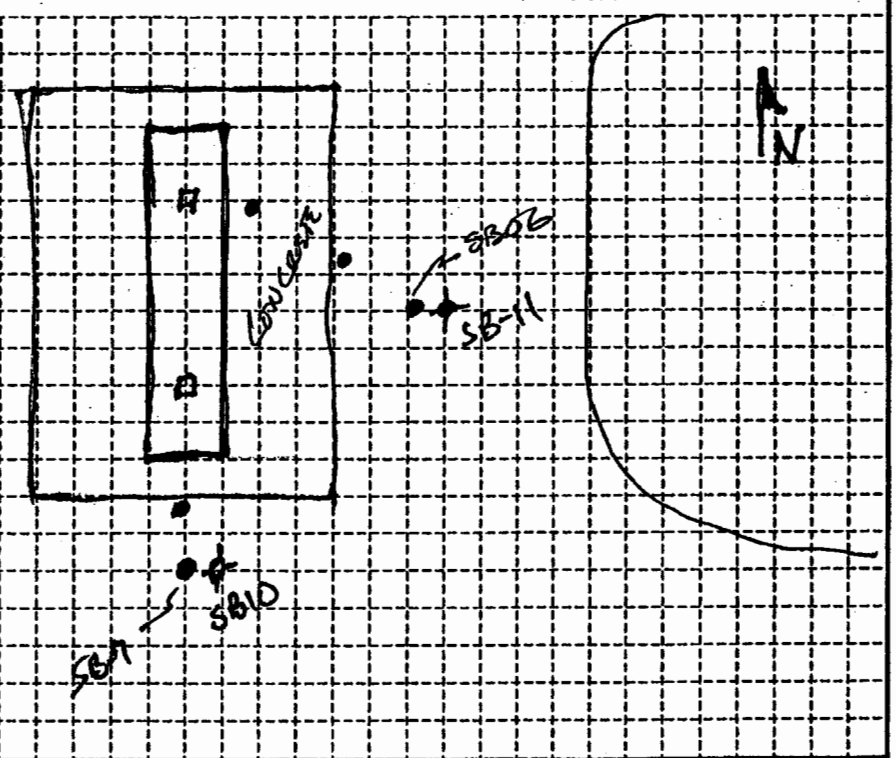
20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	✓	✓	GRO	SVOC		

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
GROUTED	✓	—	—	[signature]

LOCATION SKETCH/COMMENTS

SCALE:

GPS COORDINATES
N. 3609695
E. 377875



PROJECT	HOLE NO.
HELSTF TSA Fuel Spill Project	SB-11

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-11

PROJECT: HELSTF TSA

INSPECTOR: J. EGILLES P.E.

SHEET 2 OF SHEETS 6

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0						
		4.25" HSA Drilling Samples starting @ 5FT.					
	1						
	2						
	3						
	4						
	5	LEAN CLAY (CL) Dry Stiff, Strong Brown 7.5YR5/6 Mostly Clay Some Gypsum Throughout Core, Little to Few Silt Fine Sand				5	
	6		0.00ppm	N/A	N/A	11 13	
						16	10:40 GRO, VOC, SVOC, Metals (6.5-7.5)
	7						
	8						
	9						
	10						

PROJECT: HELSTF TSA Fuel Spill Invest.

HOLE NO. SB-11

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-11

PROJECT: HELSTF

INSPECTOR: J. Gillespie

SHEET 3 OF SHEETS 6

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	10	Poorly Graded Sand (SP), Medium - Dry, Lt Brown 7.5YR 6/3, Mostly Fine to V. Fine Sand, Gradium to More Clay Content 11.5-12.0 w/ Gypsum					5	
							10	
	11		0.01 ppm	N/A		N/A	9	
							13	GRD/SVOC/SVOC/ METALS 10:45
	12							
	13							
	14							
	15	Poorly Graded Sand (SP) Loose, Dry, Brown 7.5YR 5/3, Mostly Fine Sand, Little to Some gypsum crystals Trace Silt.					4	
							9	
	16		0.2 ppm	N/A	N/A	N/A	10	
							9	11:00 GRD/SVOC/VOC/ METALS 16.5-17.0
	17							
	18							
	19							
	20							

PROJECT: HELSTF TSA Fuel Spill Investigation

HOLE NO. SB-11

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-11

PROJECT: HELSTF TSA

INSPECTOR: J.E.G. LEESPIER

SHEET 4 OF SHEETS 6

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	Poorly Graded Sand (SP), Loose Saturated, Lt Brown 7.5YR 6/3, Mostly Fine Sand, Little Gypsum.					4	
							13	
	21		35ppm	N/A	N/A	N/A	49	Duplicate Analysis
							50	VOC/GRO/SVOC/METALS 11:00
	22							
	23							
	24							
	25	Poorly Graded Sand (SP) Same as above					5	
							7	
		Grading into ↓	1.8ppm	N/A	N/A	N/A	12	
	26	Lean Clay (CL) Stiff, Dry, Strong Brown 7.5YR 5/6, Mostly Clay w/ Little Clusters of Gypsum					15	VOC/GRO/SVOC METALS 11:20
	27							
	28							
	29							
	30							

PROJECT: HELSTF TSA Fuel Spill Investigation

HOLE NO. SB-11

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-11

PROJECT: HELSTF TSA

INSPECTOR: JEGilles

SHEET 5 OF SHEETS 6

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	30	POORLY GRADED SAND W/ CLAY (SP/SC) MEDIUM, MOIST - SATURATED BROWN 7.5YR 5/4 MOSTLY ~~REF~~ FINE SAND W/ SOME GRADATIONAL CLAY LENSES	4.5ppm 35ppm				5	
							9	
	31						12	
							14	GRO/VOC/SVOC/METALS 31.5-32.0 11:20
	32							
	33							
	34							
	35	BROWN CLAY WITH SAND LENTS (CL), STIFF, MOIST, STRONG BROWN TO ~~LIGHT~~ PINKISH GRAY 7.5YR 5/6 TO 7.5YR 7/2, MOSTLY CLAY SOME FINE TO MEDIUM SAN					4	
			0.4ppm	N/A	N/A	N/A	8	
	36						8	
							14	
							14	GRO/VOC/SVOC/METALS 11:30 36.5-37.0
	37							
	38							
	39							
	40							

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-11

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER

PROJECT HELSTF TSA

INSPECTOR [illegible]

SHEET 6 SHEETS 6

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	40	LEAN CLAY (CL) STIFF, MOIST, Brown, 7.5YR 5/5, MOSTLY CLAY w/ Gypsum VERTICAL STRINGERS, SLIGHT BEARING	O. Sppm	N/A	N/A	N/A	4 9 14 16	VOC/SVOC/GRO/ TRGHCS. Sample collected @ 11:50 41.5-42
	41							
	42	Bottom of Exploration @ 42 FT Drilled 4.25 inch ID HSA TO 40 FT.						

PROJECT HELSTF TSA FUEL SPILL INVEST

HOLE NO. SB-11

HTRW DRILLING LOG

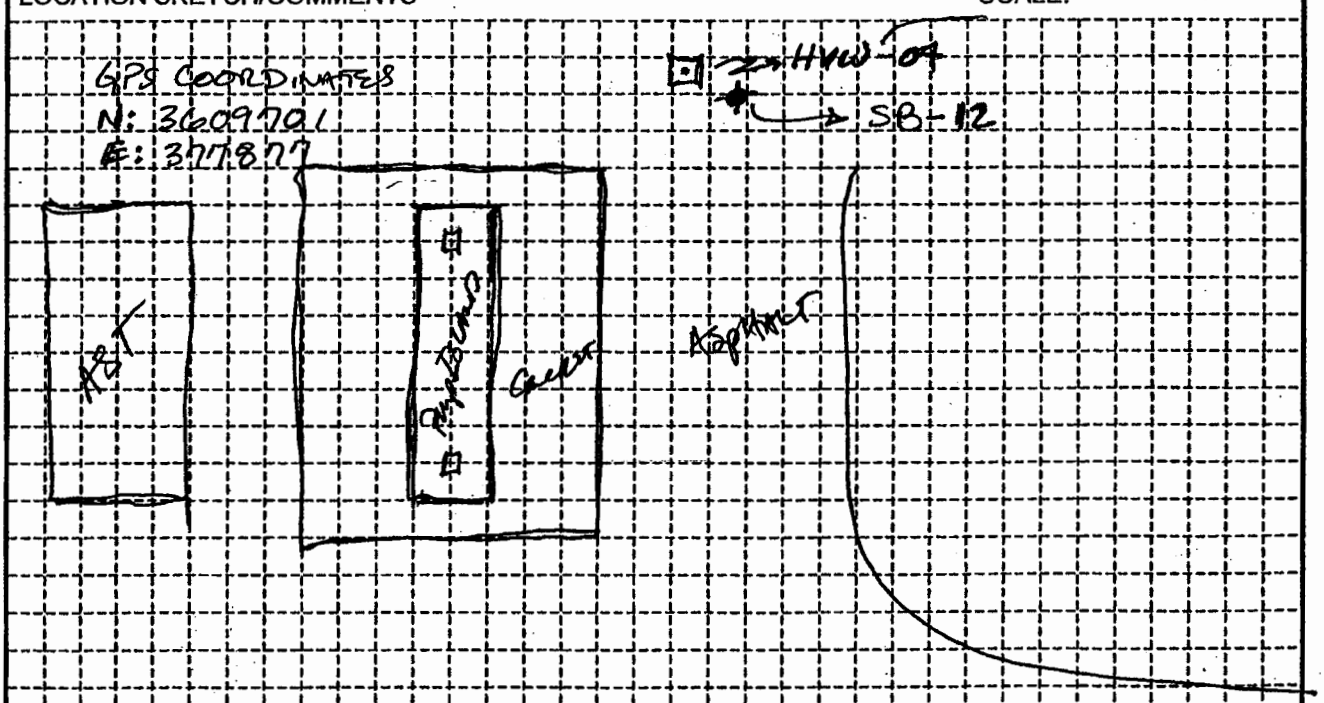
DISTRICT		HOLE NO. SB-12
1. COMPANY NAME: NORTHWIND	2. DRILLING SUBCONTRACTOR: RAZA ESTNER	SHEET 1 OF 6 SHEETS
3. PROJECT: HELSTF TSA	4. LOCATION: WSMR	
5. NAME OF DRILLER: MANNY DUENEZ	6. MANUFACTURER'S DESIGNATION OF DRILL: CME 75	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4.25 INCH ID HSA w/ STANDARD SPLITSPOON SAMPLES CHAMBERED SAMPLES COLLECTED USING 1 1/2" BRASS SLEEVES	8. HOLE LOCATION: 3 FT FROM FORMER BORING SB08 HVW-04	
	9. SURFACE ELEVATION: T.B.D.	
	10. DATE STARTED: 5-10-04	11. DATE COMPLETED: 5-10-04
12. OVERBURDEN THICKNESS: N/A	15. DEPTH GROUNDWATER ENCOUNTERED: BETWEEN 17 & 20 FT	
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: N/A	
14. TOTAL DEPTH OF HOLE: 40 FEET	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): N/A	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: N/A

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	✓	✓	SVOC	GRO	N/A	N/A %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
			N/A	[signature]

LOCATION SKETCH/COMMENTS — SCALE:



PROJECT	HOLE NO.
HELSTF TSA FUEL SPILL INVESTIGATION	SB-12

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-12

PROJECT: HELSTF TSA

INSPECTOR: J. Gillen

SHEET 2 OF SHEETS 6

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0							Drilling 13:15
	1	No Samples Collected						
	2	1st Sample 5-7 FT						
	3							
	4							
	5	LEAN CLAY, (CL) STIFF, Dry, Brown 7.5YR 5/4, MOSTLY Clay, Some Gypsum crystals Little Fine Sand.	0.4ppm	N/A	N/A	N/A	10	
	6						15	
							15	
							13	GRO/VOC/SVOC/MS/MSD 1330 6.5-7.0
	7							
	8							
	9	Hard Resistant Drill						
	10							

PROJECT: HELSTF TSA FUEL

HOLE NO. SB-12

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-12

PROJECT: HELSTF TSA

INSPECTOR: J.E. GILLESPIE

SHEET 3 SHEETS 6

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	10	SILT (ML) MEDIUM, DRY, LT BROWN 7.5YR 6/3, MOSTLY SILT, LITTLE gypsum/FINE SAND HARD DRILL	Spm	N/A	N/A	N/A	6 12 12 11	HARD GRO/VOC/SVOC/METALS 13:40 11.5-12.0
	11							
	12	DENSE SLOW DRILLING						
	13							
	14							
	15	POORLY GRADED SAND (SP) MEDIUM, DRY, LT BROWN 7.5YR 6/3, MOSTLY FINE SAND TRACE TO LITTLE SILT.	Spm	N/A	N/A	N/A	17 12 10 12	GRO/VOC/SVOC/METALS 1400 16.5-17.0
	16							
	17							
	18							
	19							
	20							

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-12

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-12

PROJECT: HELSTF TSA

INSPECTOR: J Gillespie

SHEET 4 OF SHEETS 6

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	Poorly graded sand (SP), Dense, saturated, Lt Brown 7.5YR 6/3, mostly fine sand ~~some~~ silt, slight odor	22ppm	N/A	N/A	N/A	30 50/6	20.5-21 Split spoon 1420 ~~Refusal~~ HLSF-0154-SB-012-(20.5-21) HLSF-0154-SB 112-(20.5-21)
	21							
	22							
	23							
	24							
	25	Lean clay (CL) medium moist ~~Lt Brown~~ Brown 7.5YR 5/4, mostly clay, little to few fine sand & fine sand w/ clay lenses.	1.2ppm	N/A	N/A		7 8 9 13	GRB/VOC/SVOC/METALS 26.5-27.0 1430
	26							
	27							
	28							
	29							
	30							

PROJECT: HELSTF TSA Fuel Spill Investigation

HOLE NO. SB-12

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-12

PROJECT: HELSTF TSA

INSPECTOR: J Gillespie

SHEET 5 OF 6 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	30	Poorly Sorted Sand w/ Clay (SP/SC), Medium, Moist, Brown 7.5YR 5/4, Mostly Fine Sand with Some Clay	0.00ppm	N/A	N/A	N/A	4	
							8	
	31						9	
							11	GRO/VOC/SVOC/METALS 14:45 (31.5-32)
	32							
	33							
	34							
	35	Lean Clay (CL) Medium Moist-Dry, Brown 7.5YR 5/4 Mostly Clay, Few 1-2in Poorly Graded Sand Lenses Banded Big Tight Clay					3	
			0.2ppm	N/A	N/A	N/A	7	
	36						13	
							13	GRO/SVOC/SVOC/METALS 14:55 (36.5-37.0)
	37							
	38							
	39							
	40							

PROJECT: HELSTF TSA Fuel Spill Investigation

HOLE NO. SB-12

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER SB-12

PROJECT HELSTF TSA

INSPECTOR [illegible]

SHEET 6 SHEETS 6

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h) 6 6
	40	LEAN CLAY (CL) STIFF, MOIST, BROWN 7.5YR 5/4, MOSTLY CLAY - TRACE ORGANICS SLIGHT BEDDING				12	
						12	
	41		1.2ppm			14	
						17	GRO/VOC/SVOC/METALS 1500 (41.5-42.0)
	42	B.O.E. @ 42 FT HSA DRILLING TO 40 FT					
	43						
	44						
	45						

PROJECT HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-12

HTRW DRILLING LOG

DISTRICT		HOLE NO. SB-13
1. COMPANY NAME: NORTH WIND	2. DRILLING SUBCONTRACTOR: RABA KISTNER	SHEET 1 OF 6 SHEETS
3. PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION	4. LOCATION: ADJ WSMR	
5. NAME OF DRILLER: MANNY DUENEZ	6. MANUFACTURER'S DESIGNATION OF DRILL: CME 75	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4.25" ID HSA STANDARD SPLITSPOON Sampling w/ BRASS LINERS	8. HOLE LOCATION: ADJACENT FORMER SB-03 (2000 INVESTIGATION)	
	9. SURFACE ELEVATION: TBD	
	10. DATE STARTED: 5-11-04	11. DATE COMPLETED: 5-11-04
12. OVERBURDEN THICKNESS: N/A	15. DEPTH GROUNDWATER ENCOUNTERED: ~~20-25 BGS~~ BETWEEN 17 & 20	
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: N/A	
14. TOTAL DEPTH OF HOLE: 40 FT	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): N/A	

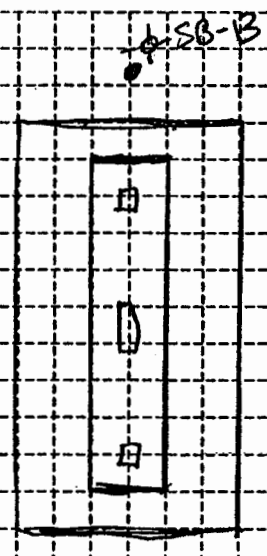
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
	N/A	N/A	N/A

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	✓	✓	SVOC	GRO	N/A	N/A %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	GROUTED	N/A	N/A	[signature]

LOCATION SKETCH/COMMENTS SCALE:

GPS COORDINATES
N: 3609707
E: 377873



PROJECT	HOLE NO.
HELSTF TSA FUEL SPILL INVESTIGATION	SB-13

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-13

PROJECT: HELSTF TSA

INSPECTOR: [illegible]

SHEET 2 OF SHEETS 6

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0							
	1							
	2							
	3							
	4							
	5	SILT (ML) LOOSE, DRY, BROWN 7.5YR 5/4 / WHITE, MOSTLY SILT, SOME GYPSUM CRYSTALS	0.0ppm	N/A	N/A	N/A	6	
	6						12	
							12	
							13	GEO/VOC/SVOC/METALS 0700 (6.5-7.0)
	7							
	8							
	9							
	10							

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-13

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER SB-13

PROJECT HELSTF

INSPECTOR J. Gallegos

SHEET 3 OF 6 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	10	Poorly Graded Sand w/ Clay (SP/SC), Loose, Dry, Lt Brown 7.5YR 6/3, with w/ Gypsum Crystals, mostly Fine Sand, little-some Clay, little Silt					6	
							12	
	11		0.0 ppm	N/A	N/A	N/A	14	
							14	GRO/VOC/SVOC/METALS 0710 (11.5-12)
	12							
	13							
	14							
	15	Poorly Graded Sand (SP) Loose, Dry-Moist, Lt Brown 7.5YR 6/3, mostly Fine-Medium Sand, very little Gypsum or Clay, some Orange Grains.					6	
			0.2 ppm	N/A	N/A	N/A	8	
	16						12	
							25	GRO/VOC/SVOC/METALS 0720 (16.5-17.0)
	17							
	18	Slow Hard Drillin Smoke Comin From Cuttings						
	19							Between 17 - 20
	20							

PROJECT HELSTF TSA Fuel Spill Investigation

HOLE NO. SB-13

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-13

PROJECT: HELSTF TSA

INSPECTOR: [illegible]

SHEET 4 OF SHEETS 6

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	Poorly Graded Sand (SP) Dense (Spoon Refusal) Lt Brn 7.5YR 5/3, Saturated Condition Mostly Fine to Medium Sand.	.3ppm	N/A	N/A	N/A	50/6	0735 (20-20.5) GRO/VOC/SVOC/METALS Saturated Densely Packed Sand.
	21							
	22							
	23							
	24							
	25	Lean Clay (CL) medium, moist, slightly plastic, brown 7.5YR 5/4, mostly clay little v. fine sand / silt	0.8ppm	N/A	N/A	N/A	3	
							3	
	26						7	
							10	GRO/VOC/SVOC/METALS 0745 (26.5-27.0)
	27							
	28							
	29							
	30							

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-13

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-13

PROJECT: HELSTF TSA

INSPECTOR: [illegible]

SHEET 5 OF 6 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	30	VISIBLE PRODUCT ON CORE	1200ppm				4	
		POORLY GRADED SAND (SP)					6	Duplicate Collected.
	31	LEAN CLAY (CL) MEDIUM, MOIST, SLIGHTLY PLASTIC					11	30.5-31.0
							13	0755
	32							
	33							
	34	ALTERNATING SAND & LEAN CLAY LENSES. POORLY GRADED SAND						
	35	LEAN CLAY (CL) MEDIUM, MOIST BROWN 7.5YR 5/4, MOSTLY CLAY, LITTLE TO FEW FINE SAND, GRAY STAINING @ 35.5 IN CONJUNCTION W/ GYPSUM CRYSTALS.	48ppm	N/A	N/A	N/A	7	0810 35-35.5 GRO/VOC/SVOC/METALS
	36						9	
							12	
							15	
	37							
	38							
	39							
	40							

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-13

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER SB-13

PROJECT HFLSTF TSA

INSPECTOR SE Gillespie

SHEET 6 SHEETS 6

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	40	LEAN CLAY (CL) MEDIUM-STIFF MOIST-DRY, BROWN 7.5YR 5/4 TO REDDISH YELLOW 7/8, MOSTLY CLAY, SLIGHTLY LAMINATED,	3.4 ppm				5	
				N/A	N/A	N/A	8	
	41						10	
							12	0820 41.5-42.0 GRO/VOC/SVOC/METALS
	42	Bottom of Exploration @ 42 HSA Drilling TO 40 FT B.G.S						
	43							
	44							

PROJECT HFLSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-13

HTRW DRILLING LOG

DISTRICT		HOLE NO. SB-14
1. COMPANY NAME: NORTH WIND	2. DRILLING SUBCONTRACTOR: RABA KISTNER	SHEET 1 OF 6 SHEETS
3. PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION	4. LOCATION: WSMR	
5. NAME OF DRILLER: MANNY DRENER	6. MANUFACTURER'S DESIGNATION OF DRILL: CME 75	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4.25" ID HSA w/ STANDARD SPLIT SPOON TECHNIQUES Sampling w/ BRASS SLEEVES	8. HOLE LOCATION: ADJACENT FORMER Boring SB-09 (2000 INVESTIG)	
	9. SURFACE ELEVATION: T.B.D.	
	10. DATE STARTED: 5-11-04	11. DATE COMPLETED: 5-11-04
12. OVERBURDEN THICKNESS: N/A	15. DEPTH GROUNDWATER ENCOUNTERED: 12-15 FT ~~N/A~~ ~~30-35 FT~~ JG	
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: N/A	
14. TOTAL DEPTH OF HOLE: 40 FT	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): N/A	

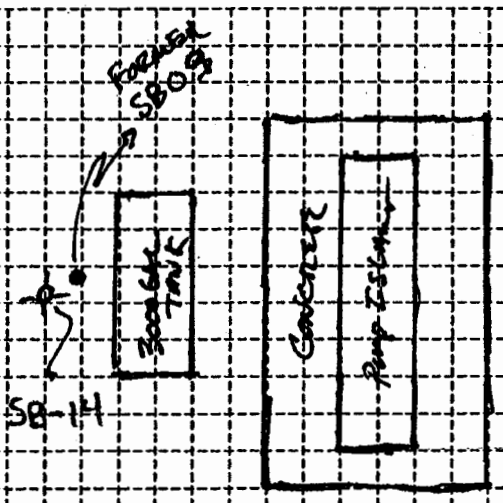
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
	N/A	N/A	N/A

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	✓	✓	SVOC	METALS		N/A %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	✓			[signature]

LOCATION SKETCH/COMMENTS

SCALE:



GPS COORDINATES
N: 3609707
E: 377859

PROJECT	HOLE NO.
HELSTF TSA FUEL SPILL INVESTIGATION	SB-14

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-14

PROJECT: HELSTF TSA

INSPECTOR: JSGILLESDIE

SHEET 2 OF SHEETS 6

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0							
	1							
	2	No samples collected from 0-5FT						
	3							
	4							
	5	Poorly Graded Sand (SP) Loose, moist-dry, Brown 7.5YR 5/4 w/white Gypsum, mostly fine sand, little silt, some gypsum crystals	0.00ppm	N/A	N/A	N/A	5 6 9 10	GRO/VOC/SVOC/METALS 0915 (6.5-7.0)
	6							
	7							
	8							
	9							
	10							

PROJECT: HELSTF TSA Fuel Spill Investigation

HOLE NO. SB-14

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER SB-14

PROJECT HELSTF TSA

INSPECTOR D. Gillespie

SHEET 3 OF SHEETS 6

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	10	POORLY GRADED SAND W/ CLAY (SP/SC) MEDIUM - SOFT - MOIST, BROWN 7.5YR 5/4, MOSTLY V. FINE SAND, LITTLE SILT, LITTLE TO SOME GYPSUM	0.00ppm	N/A	N/A	N/A	2	
							5	
	11						5	
							8	GRO/VOC/SVOC/METALS 0930 (11.5-12)
	12							
	13							
	14							BETWEEN 12 & 15
	15	POORLY GRADED SAND (SP) DENSE, SATURATED, LT BROWN 7.5YR 6/3, MOSTLY FINE TO MEDIUM SAND, CONSISTENT NO INNER BEDDING OF CLAY OR SILT.	0.00ppm	N/A	N/A	N/A	10	SATURATED
	16						28	
							30	
							33	GRO/VOC/SVOC/METALS 0940
	17							
	18							
	19							
	20							

PROJECT HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-14

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-14

PROJECT: HELSTF TSA

INSPECTOR: [illegible]

SHEET / SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	POORLY GRADED SAND (SP) SAME AS 15-17					10	
			0.0ppm	N/A	N/A	N/A	10	
	21	LEAN CLAY (CL) STIFF, MOIST, BROWN 7.5YR 5/4, MOSTLY CLAY SOME - LITTLE GYPSUM CAVITIES					12	
							17	GEO/VOC/SVOC/METALS 0945 (21.5-22)
	22							
	23							
	24							
	25	LEAN CLAY (CL) STIFF, MOIST SLIGHTLY PLASTIC, BROWN 7.5YR 5/4, MOSTLY CLAYS, LITTLE SILT / FINE SAND SLIGHT BEDDING					2	
							4	
	26		0.3ppm	N/A	N/A	N/A	10	
							11	GEO/VOC/SVOC/METALS 0958 26.5-27
	27							
	28							
	29							
	30							

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB 14

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-14

PROJECT: HELSTF TSA

INSPECTOR: S.E.G. McDIE

SHEET 5 OF 6 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	30	Poorly Graded Sand (SP) Loose, Saturated, Lt Brown 7.5YR 6/3, Mostly Fine to Medium Sand, Little to Few Clay in Zones.	5.0ppm				3	30 - 30.5
							9	
	31						16	Duplicate Collected
							21	
	32							10:05
	33							
	34							
	35	Lean Clay (CL) Stiff, Moist-Dry, Brown 7.5YR 5/4, Mostly Clay, Bedding Very Thin & Prominent, Large Sm Crystalline Gypsum Clay is Gray-White Surrounds Gypsum	0.3ppm	N/A	N/A	N/A	5	
	36						11	
							11	
							13	Geo/Voc/Geochem/Metals 10:15 (36.5-37)
	37							
	38							
	39							
	40							

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-14

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-14

PROJECT: HELSTF

INSPECTOR: JBGillespie

SHEET / SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	40	CLAY (CL), STIFF, MOIST-DRY, BROWN 7.5YR 5/4, MOSTLY CLAY, VERTICAL LENSES of Gypsum CRYSTALS (VEINS)	0.00			5	
	41					9	
						11	
						15	GEO/VOC/SVOC/METALS 10:25 (41.5-42)
	42	FINE SAND IN SHOE w/ VERTICAL drainage staining					
		Bottom of Exploration @ 42 FT					
	43	HSA Drilling TO 40 FT					
	44						

PROJECT: HELSTF TSA Fuel Spill Investigation

HOLE NO. SB-14

HTRW DRILLING LOG

DISTRICT		HOLE NO. SB-15
1. COMPANY NAME: NORTH WIND	2. DRILLING SUBCONTRACTOR: RABA KISTNER	SHEET 1 OF 6 SHEETS
3. PROJECT: HELSTF TSA	4. LOCATION: WSMR	
5. NAME OF DRILLER: MANNY BUENRZ.	6. MANUFACTURER'S DESIGNATION OF DRILL: CME 75	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4.25" I.D. HSA w/ STANDARD SPLIT SPOON TECHNIQUES Sampling w/ BRASS LINERS	8. HOLE LOCATION: ADJACENT FORMER SB-05 LOCATION. HVW-03	
	9. SURFACE ELEVATION: T.B.D	
	10. DATE STARTED: 5-11-04	11. DATE COMPLETED: 5-11-04
12. OVERBURDEN THICKNESS: N/A	15. DEPTH GROUNDWATER ENCOUNTERED: ~~~20 ~~25FT~~ BETWEEN M-20	
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: N/A	
14. TOTAL DEPTH OF HOLE: 40 FT	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): N/A	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES: N/A

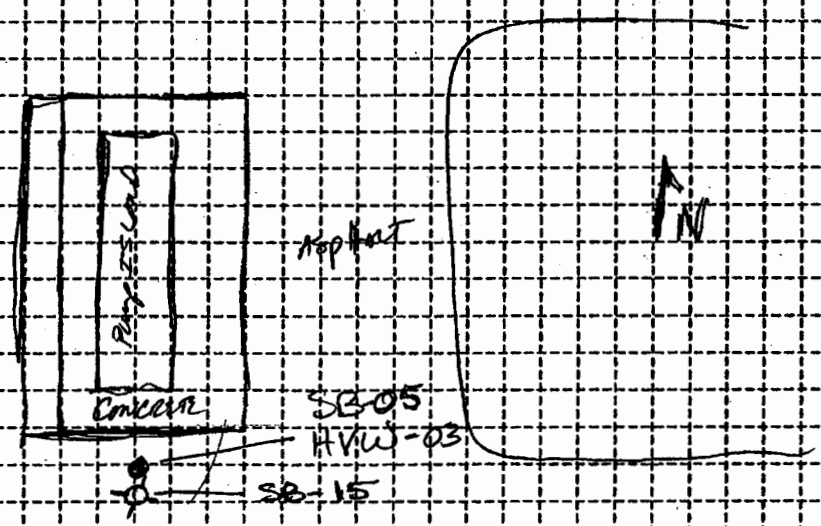
20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	VOC/SVOC	8 RCRA	GRO	N/A	N/A	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	GROUTED	N/A	N/A	[illegible]

LOCATION SKETCH/COMMENTS SCALE:

GPS COORDINATES

N: 3600966
E: 377867



PROJECT	HOLE NO.
HELSTF TSA Fuel Spill INVESTIGATION	SB-15

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER SB-15

PROJECT HELSTF TSA

INSPECTOR [illegible]

SHEET 2 OF SHEETS 6

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0							
	1							
	2	No Samples Collected From 0-5 FT						
	3							
	4							
	5	SILT (ML) LOOSE, DRY LT Brown 7.5YR 6/3 w/ White From Gypsum Crystals, Mostly Silt, Few Fine Sand					8	
	6		0.00ppm	N/A	N/A	N/A	11 12	
							12	GRO/VOC/SVOC/METALS 11:25 (6.5-7.0)
	7							
	8							
	9							
	10							

PROJECT HELSTF TSA Fuel Spill INVESTIGATION

HOLE NO. SB-15

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-15

PROJECT: HELSTF TSA

INSPECTOR: J. GILLESPIE

SHEET / SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	10	SILT (ML) LOOSE - MEDIUM, MOIST - DRY, BROWN 7.5YR 5/4, MOSTLY SILT, LITTLE FINE - V. FINE SAND, SLIGHT BEDDING & FEW GYPSUM CRYSTALS	0.0ppm	N/A	N/A	N/A	9	
							10	
	11						12	
							17	GRO/VOC/SVOC/METALS 11:35 (11.5-12.)
	12	HARD DRILLING						
	13							
	14							
	15	POORLY GRADED SAND (SP), ~~LOSE~~ DENSE, CEMENTED LENSES, LT BROWN 7.5YR 6/3, DRY, SLIGHT BEDDING, MOSTLY FINE SAND, TRACE SILT	.5ppm				10	
							34	
	16						37	
							32	GRO/VOC/SVOC/METALS 12:10 (16.5-17.0)
	17	HARD DRILLING						
	18							
	19							BETWEEN 17 & 20
	20							

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-15

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-15

PROJECT: HELSTF TSA

INSPECTOR: J. GILLESPIE

SHEET / SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	LEAN CLAY (CL) STIFF DRY SATURATED TO MOIST w/in GYPSUM CAVITIES. Brown 7.5YR 5/4 MOSTLY CLAY, SOME GYPSUM IN LENS. > 5mm. FEW FINE SAND LENS.	35ppm				10	
	21		STRONG ODOR	N/A	N/A	N/A	20	Duplicate collected
							25	
		SATURATED w/ THE GYPSUM	200ppm				15	GRO/VOC/SVOC/METALS 12:20 (21.5-22.0)
	22							
	23							
	24							
	25	POORLY GRADED SAND (SP) LOOSE, SATURATED, LT BROWN 7.5YR 6/3, MOSTLY FINE - MED. SAND. STRONG ODOR	52 ppm				4	
							3	
	26	LEAN CLAY (CL) STIFF, MOIST, BROWN 7.5YR 5/4, MOSTLY CLAY SLIGHT BEDDING STRONG ODOR	84 ppm	N/A	N/A	N/A	4	
							8	GRO/VOC/SVOC/METALS 12:30 (26.5-27)
	27							
	28							
	29							
	30							

PROJECT: HELSTF TSA Fuel Spill INVESTIGATION

HOLE NO. SB-15

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-15

PROJECT: HELSTF TSA

INSPECTOR: J.E.G. LEE

SHEET / SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	30	POORLY GRADED SAND (SP) LOOSE LT BROWN 7.5YR 6/3, SATURATED SLIGHT ODOR, MOSTLY FINE SAND TRACE SILT	10 ppm				2 8	FALL BACK? NOT SURE
	31	LEAN CLAY (CL) STIFF, MOIST BROWN 7.5YR 5/4, MOSTLY CLAY, SLIGHT THIN BEDDING	18 ppm				10 12	GRO/VOC/SVOC/METALS 12:40 (31.5-32)
	32							
	33							
	34							
	35	LEAN CLAY (CL) STIFF MOIST, BROWN 7.5YR 5/4, MOSTLY CLAY, SLIGHT BEDDING VERY THINLY LAMINATED, GYPSUM CRYSTALS > 5mm OBSERVED ALONG VERTICAL FRACTURES	10 ppm	N/A	N/A	N/A	4 7	
	36		12 ppm				12 13	GRO/VOC/SVOC/METALS 12:50 (36.5-37)
	37							
	38							
	39							
	40							

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB 15

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-15

PROJECT: HELSTF TSA

INSPECTOR: D. GILLESPIE

SHEET 6 OF SHEETS 6

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)		ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	40	LEAN CLAY (CL) MEDIUM-STIFF, MOIST-DRY, Brown 7.5YR 5/4, MOSTLY CLAY, THINNLY LAMINATED BEDDING W/ VERTICAL CRACKS <.5mm STRONG GASOLINE ODOR	1876 ppm	N/A	N/A	N/A	5 15 15 15	NOTE: WATER CARD BE INTERFERENCE W/ ACTUAL SOIL CONCENTRATIONS
	42							1300
		Bottom of Exploration @ 42 FT						
	43	Bottom of HSA Drilling @ 40 FT.						
	44							
	45							

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-15

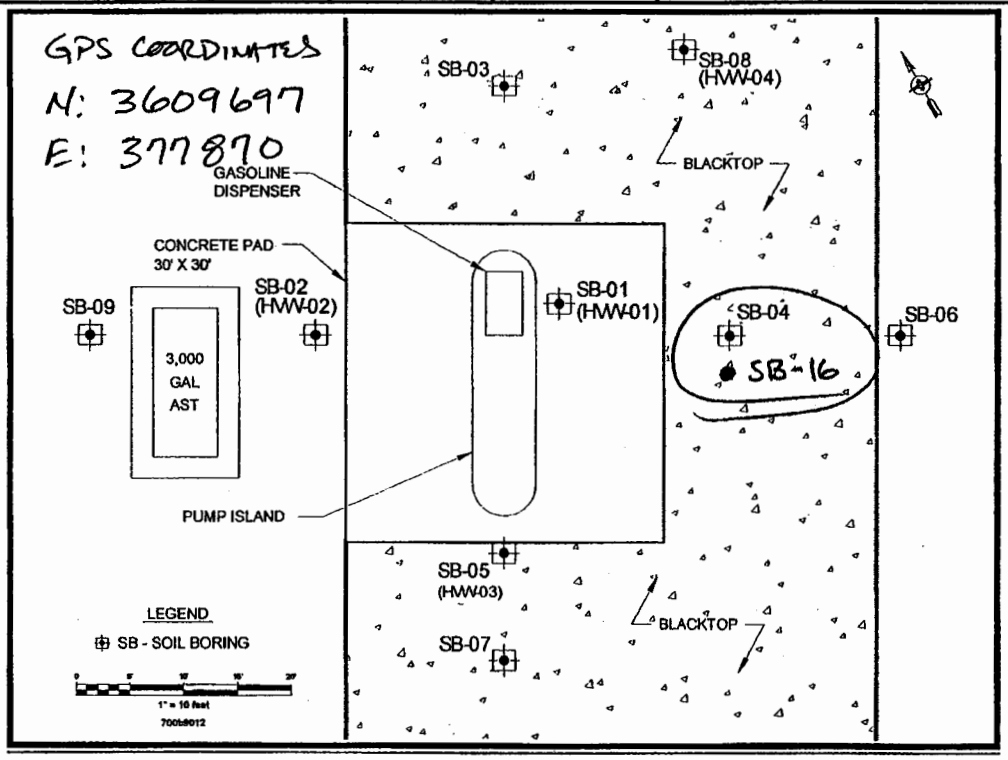
HTRW DRILLING LOG

DISTRICT: N/A		HOLE NO.: SB-16
1. COMPANY NAME: North Wind, Inc.	2. DRILLING SUBCONTRACTOR: Raba Kistner Drilling	SHEET 1 OF 6 SHEETS
3. PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION	4. LOCATION: White Sands Missile Range, New Mexico	
5. NAME OF DRILLER: Manny Duenez	6. MANUFACTURER'S DESIGNATION OF DRILL: CME 750 Truck Mounted Rig	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4.25 inch Hollow Stem Auger / CME 75 Truck Standard Split Spoon Sampling Method with Brass Sleeves	8. HOLE LOCATION: See Diagram Below	
	9. SURFACE ELEVATION: To Be Determined	
	10. DATE STARTED: 5-11-04	11. DATE COMPLETED: 5-11-04
12. OVERBURDEN THICKNESS: N/A	15. DEPTH GROUNDWATER ENCOUNTERED: ~~≈ 20-25 FT~~ IN BETWEEN 17 & 20 FT	
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: None	
14. TOTAL DEPTH OF HOLE: Depth of Boring 40 feet / Bottom of Exploration 42 feet	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): None	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
	N/A	N/A	N/A

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	8 RCRA METALS	SVOCS	GRO	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	X	X	X	X		

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	GROUTED			[illegible]



PROJECT HELSTF TSA FUEL SPILL INVESTIGATION , WSMR | HOLE NO. SB-16

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-16

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: E. Gillespie

SHEET 2 OF 6 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	ASPHALT / ROAD BASE					
		NO SAMPLES					
	1	COLLECTED FROM					
		0-5 FT					
	2						
	3						
	4						
	5	(ML) SILT, LOOSE, DRY,				4	
		BROWN 7.5YR 5/4, MOSTLY					
		SILT, SOME WHITE GYPSUM	0.00ppm			11	0.00ppm
	6	CRYSTALS					
						13	
						17	14:05 Sample (6.5-7.0)
	7						
	8						
	9						
	10						

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-16

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-16

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: JEGILLESPIE

SHEET 3 OF 6 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	10	POORLY GRADED SAND (SP) LOOSE - MEDIUM, DRY, LT. BRN 7.5YR 6/3, MOSTLY FINE SAND, LITTLE SILT	.1 ppm			6	
						12	
	11					12	SAMPLE (11.5-12.0)
						12	14:15
	12						
	13						
	14						
	15	POORLY GRADED SAND (SP) AS ABOVE EXCEPT NO SILT DRY - MOIST	7.3 ppm			6	
						7	
	16					7	SAMPLE (16.5-17.0)
						13	14:20
	17						
	18						
	19						BETWEEN 17-20 FT
	20						

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-16

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-16

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: JE Gillespie

SHEET 4 OF 6 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	Poorly Graded Sand (SP), ~~Loose~~ - Medium, Saturated, Lt Brown 7.5YR 6/3, Mostly Fine Sand, Trace Medium ? V. Fine Sand				21	
			187 ppm			35	
	21	Dense @ Depth				50	Duplicate From Interval & Sample (20.5-21.0)
						33	14:40
	22						
	23						
	24						
	25	Lean Clay (CL) Stiff, Moist-Dry, Brown 7.5YR 5/4, Mostly Clay, Increased Fine Sand @ 25.5-26.5				4	
			7.8 ppm			5	
	26					5	Sample (26.5-27.0)
						13	14:45
	27						
	28						
	29						
	30						

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-16

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-16

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: [illegible]

SHEET 5 OF 6 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	30	Poorly Graded Sand (SP) medium, Visible Product, Lt Brown, 7.5YR 6/3, mostly fine sand,	90-100ppm			2	Visible Product on sand grains
						4	
	31	Lean Clay (CL) stiff, moist, Brown 7.5YR 5/4, mostly clay				13	
						13	Sample (30.5-31.0) 14:55
	32						
	33						
	34						
	35	Lean Clay (CL) stiff, moist. Dry, Grey mottling along fractures, thinly laminated bedding	98ppm			4	
						7	
	36					8	
						14	Sample (35.5-36.0) 15:10
	37						
	38						
	39						
	40						

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-16

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-16

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: E. GILLESPIE

SHEET 6 OF 6 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	40	LEAN CLAY (CL), STIFF, MOIST-DRY. BROWN 7.5YR 5/4, MOSTLY CLAY, THINNLY LAMINATED, LITTLE ORANGE STAINING ON BEDDING ? FRACTURES.	24ppm			5	
	41					10	
						12	Sample (41.5-42.0) 15:20
						17	
	42	Bottom of Exploration @ 42FT Bottom of Boring @ 40FT					

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-16

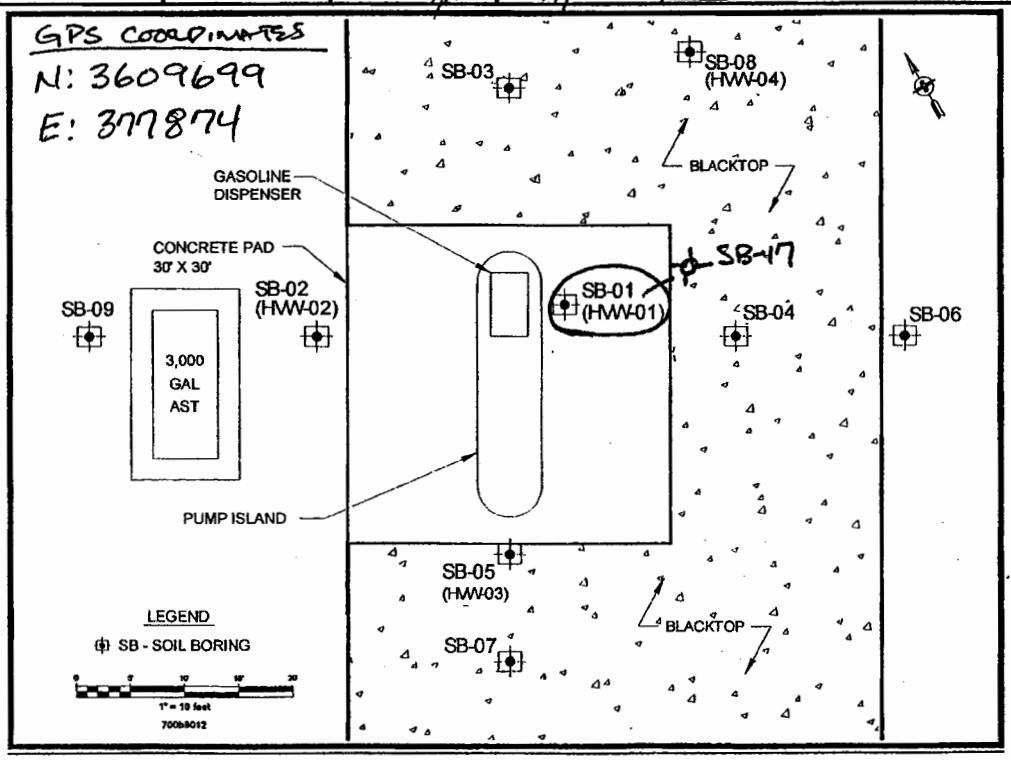
HTRW DRILLING LOG

DISTRICT: N/A	HOLE NO.: SB-17	
1. COMPANY NAME: North Wind, Inc.	2. DRILLING SUBCONTRACTOR: Raba Kistner Drilling	SHEET 1 OF 6 SHEETS
3. PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION	4. LOCATION: White Sands Missile Range, New Mexico	
5. NAME OF DRILLER: Manny Duenez	6. MANUFACTURER'S DESIGNATION OF DRILL: CME 750 Truck Mounted Rig	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4.25 inch Hollow Stem Auger / CME 75 Truck Standard Split Spoon Sampling Method with Brass Sleeves	8. HOLE LOCATION: See Diagram Below	
	9. SURFACE ELEVATION: To Be Determined	
	10. DATE STARTED: 5-12-04	11. DATE COMPLETED: 5-12-04
12. OVERBURDEN THICKNESS: N/A	15. DEPTH GROUNDWATER ENCOUNTERED: ~~20-25 FT~~ BETWEEN 17 & 20 FT	
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: None	
14. TOTAL DEPTH OF HOLE: Depth of Boring 40 feet / Bottom of Exploration 42 feet	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): None	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
	N/A	N/A	N/A

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	8 RCRA METALS	SVOCS	GRO	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	X	X	X	X		

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	GROUTED	N/A	N/A	[signature]



PROJECT HELSTF TSA FUEL SPILL INVESTIGATION, WSMR — HOLE NO. SB-17

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-17

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: J.E. Gillespie

SHEET 2 OF 6 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	ASPHALT / GRAVEL BASE					
		NO SAMPLES COLLECTED FROM 0-5 FT BGS					
	1						
	2						
	3						
	4						
	5	SILT (ML) LOOSE, DRY, BROWN/WHITE 7.5YR 5/4), MOSTLY SILT, LITTLE FINE SAND WHITE GYPSUM CRYSTALS, TRACE CLAY				7	
	6		0.0ppm			16	
						16	
						20	SAMPLE (6.5-7.0) 0700.
	7						
	8						
	9						
	10						

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-17

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-17

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: T. Gillespie

SHEET 3 OF 6 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	10	Poorly Graded Sand (SP), loose, Dry, Brown 7.5YR 5/4, Mostly V. Fine Sand, increased clay content w/ depth, Trace to little gypsum	~~14-3.8ppm~~ 0.0ppm			5	
	11					9	
						9	
						14	Sample (16.5-17.0) 0720
	12						
	13						
	14						
	15	Poorly Graded Sand (SP) loose, Dry, Lt Brown 7.5YR 6/3, Mostly Fine-Medium Sand, consistent, Trace silt, gypsum crystals, Slight odor.	14-3.8ppm			7	
	16					7	
						13	
						18	Sample (16.5-17.0) 0720
	17						
	18						
	19						Between 17 & 20 FT
	20						

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-17

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-17

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: J. Gillespie

SHEET 4 OF 6 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	POORLY GRADED SAND (SP) DENSE, SATURATED, LT BRN 7.5YR 6/3, MOSTLY FINE - MED SAND, WELL PACKED, HIGH DILATENCY, TRACE SILT, SLIGHT - STRONG ODOR.	840 ppm			17	
	21					45	
						50/6	SAMPLE (21.0-21.5) 0740
	22						
	23						
	24						
	25	POORLY GRADED SAND (SP) DENSE, SATURATED AS ABOVE, GRADING INTO LEAN CLAY	64 ppm			3	
	26					8	
						7	
		LEAN CLAY (CL) STIFF, DRY TO MOIST, BROWN 7.5YR 5/4, MOSTLY CLAY, THINNLY LAMINATED, LARGE FINE SAND, SLIGHTLY PLASTIC				11	SAMPLE (26.5-27.0) 07:50
	27						
	28						
	29						
	30						

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-17

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-17

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: JEGillespie

SHEET 5 OF 6 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	30	LEAN CLAY (CL) STIFF, MOIST-DRY, BROWN 7.5YR 5/4, MOSTLY CLAY, LITTLE-FEW-FINE SAND/SILT, SLIGHT ODOR, OUTSIDE OF BRASS TUBES, SATURATED WITH WATER FROM ABOVE, PERHAPS AFFECTING HEADSPACE	500ppm			4	
	31					7	
						10	
						13	Sample (31.5-32) 0800.
	32						
	33						
	34						
	35	POORLY GRADED SAND (SP) LOOSE, MEDIUM, MOIST, LT BROWN 7.5YR 6/3, MOSTLY FINE-MED SAND	16.ppm			1	
						3	
	36	LEAN CLAY (CL) STIFF, MOIST-DRY, BROWN 7.5YR 5/4, MOSTLY CLAY, VERTICAL INFILL OF FRACTURES BY OXYGEN NO WATER AROUND CORE. CORE IS WELL PACKED.				5	
						9	Sample (36.5-37) 0815
	37						
	38						
	39						
	40						

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-17

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-17

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: JSG, LLEAR

SHEET 6 OF 6 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	40	LEAN CLAY (CL), STIFF MOIST-DRY, BROWN 7.5YR 5/4, MOSTLY LEAN CLAY, TRACE FINE SAND, gypsum crystals IN Fillin voids & VERTICAL FRACTURES	33 ppm			6	
	41					9	
						13	Sample (41.5-42.0)
						13	0830
	42	Bottom of Exploration @ 42 FT Bottom of Boring @ 40					

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-17

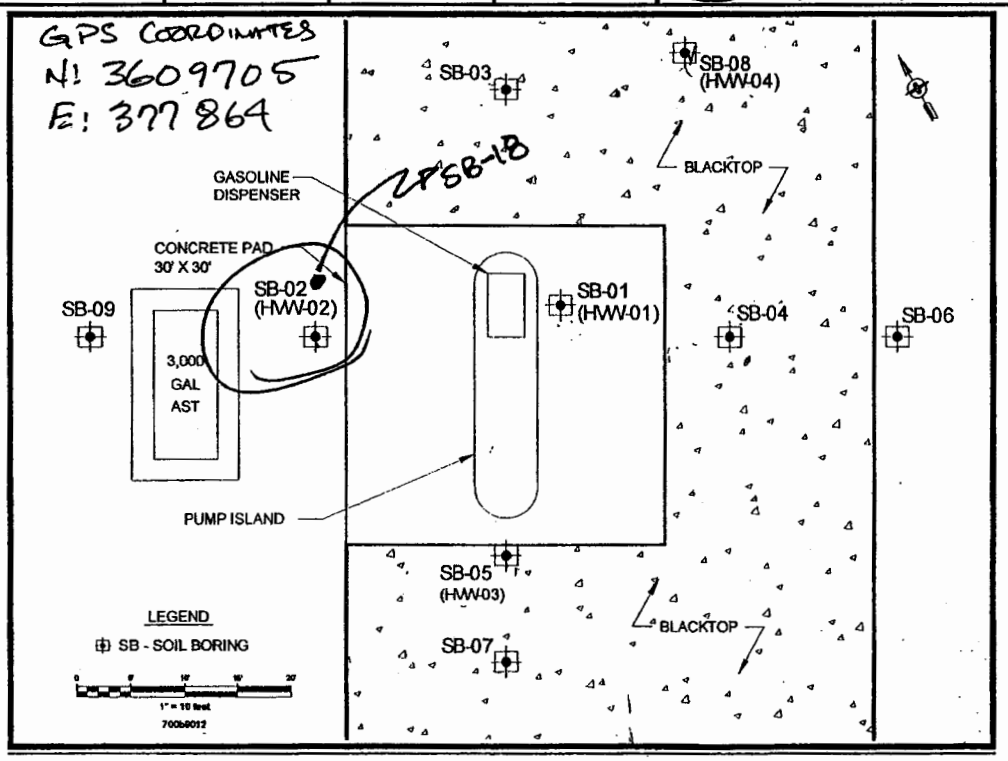
HTRW DRILLING LOG

DISTRICT: N/A		HOLE NO.: SB-18
1. COMPANY NAME: North Wind, Inc.	2. DRILLING SUBCONTRACTOR: Raba Kistner Drilling	SHEET 1 OF 6 SHEETS
3. PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION	4. LOCATION: White Sands Missile Range, New Mexico	
5. NAME OF DRILLER: Manny Duenez	6. MANUFACTURER'S DESIGNATION OF DRILL: CME 750 Truck Mounted Rig	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 4.25 inch Hollow Stem Auger / CME 75 Truck Standard Split Spoon Sampling Method with Brass Sleeves	8. HOLE LOCATION: See Diagram Below	
	9. SURFACE ELEVATION: To Be Determined	
	10. DATE STARTED: 5-12-04	11. DATE COMPLETED: 5-12-04
12. OVERBURDEN THICKNESS: N/A	15. DEPTH GROUNDWATER ENCOUNTERED: ~~≈ 20-25 FT~~ BETWEEN 12 & 15 FT	
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: None	
14. TOTAL DEPTH OF HOLE: Depth of Boring 40 feet / Bottom of Exploration 42 feet	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): None	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
	N/A	N/A	N/A

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	8 RCRA METALS	SVOCS	GRO	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	X	X	X	X		

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	GROUTED			J.E. Gillespie



PROJECT HELSTF TSA FUEL SPILL INVESTIGATION, WSMR | HOLE NO. SB-18

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-18

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: [illegible]

SHEET 2 OF 6 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0	DIRT/SURFACE MATERIAL BACKFILL NO SAMPLE COLLECTED FROM 0-5 FT					
	1						
	2						
	3						
	4						
	5	POORLY GRADED SAND (SP) LOOSE DRY, BROWN/WHITE 7.5YR 5/3, MOSTLY V. FINE SAND, LITTLE-TRACE SILT, WHITE gypsum THROUGHOUT.	Spm			2	
						3	
	6					3	
						4	Sample (6.5-7.0) 0920
	7						
	8						
	9						
	10						

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-18

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-18

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: [illegible]

SHEET 3 OF 6 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	10	POORLY GRADED SAND w/clay (SP-SC) MEDIUM, MOIST-DRY, BROWN, 7.5YR 5/3, MOSTLY FINE SAND, LITTLE - SOME CLAY, gypsum crystals infilling voids	.3 ppm			8	
	11					10	
						11	
						15	Sample (11.5-12.0) 0945
	12						
	13						
	14						BETWEEN 12.5, 15
	15	POORLY GRADED SAND (SP) DENSE, SATURATED, LT BRN 7.5YR 6/3, MOSTLY FINE TO MEDIUM SAND, CONSISTENT, NO LAYERING. NO ODOR OR STAINING TRACE SILT	0.0 ppm			7	
	16					22	
						38	
						42	Sample (16.5-17.0) 0950
	17						
	18						
	19						
	20						

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-18

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-18

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: [illegible]

SHEET 4 OF 6 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	POORLY GRADED SAND (SP), DENSE, SATURATED, LT BRN 7.5YR 6/3, MOSTLY FINE TO MEDIUM SAND, CONSISTENT, VISIBLE FREE PRODUCT, STRONG ODOR	2480 ppm			20	
	21					30	
						47	
						50/6	Sample (20.5-21.0) 10:15
	22						
	23						
	24						
	25	POORLY GRADED SAND (SP) AS ABOVE EXCEPT NO ODOR OR HEADSPACE	<5ppm			4	
						7	
	26					9	
		LEAN CLAY (CL) STIFF, MOIST, BROWN 7.5YR 5/4, MOSTLY CLAY W/ GYPSUM INFILLING VOIDS NO EVIDENCE OF STAINING SLIGHT ODOR				12	Sample (26.5-27.0) 10:25
	27						
	28						
	29						
	30						

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-18

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-18

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: [illegible]

SHEET 5 OF 6 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	30	POORLY GRADED SAND (SP) AS ABOVE, MEDIUM, SATURATED, VISIBLE FREE PRODUCT ON GRAINS	1184 ppm			7	
						10	VISIBLE PRODUCT.
	31	POORLY GRADED SAND W/ CLAY (SP/SC) INCREASED CLAY CONTENT				13	
						12	Sample (30.5-31.0) 10:35
	32	LEAN CLAY (CL) IN SHOE.					
	33						
	34						
	35	POORLY GRADED SAND W/ CLAY (SP/SC) MEDIUM, MOIST-SATURATED, MOSTLY FINE SAND SOME CLAY GRADING INTO LEAN CLAY @ 36.5	8-10 ppm			4	
	36					6	
						12	
		LEAN CLAY (CL) STIFF, DRY-MOIST BROWN 7.5YR 5/4, MOTTLED PALE GREEN (GLAUCONITIC) MOSTLY CLAY, TRACE FINE SAND ASSOCIATED W/ GYPSUM AND MOTTLING.				16	Sample (36.5-37) 10:50
	37						
	38						
	39						
	40						

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-18

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-18

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: [illegible]

SHEET 6 OF 6 SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	40	LEAN CLAY (CL) STIFF, DRY MOIST, BROWN MOTTLED PALE 7.5YR 5/4 GREEN (GLAUCONITIC) MOIST, CLAY, gypsum CRYSTALS IN FILLING VERTICAL FRACTURES AND VOIDS				5	
			5-6ppm			10	
	41					13	
		EFFECTS OF WATER SURROUNDING CORE COULD EFFECT HOMOGENEITY.				15	Sampler (41.5-42) 11:00
	42	Bottom of Exploration @ 42 FT Bottom of Boring 40 FT.					

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-18

HTRW DRILLING LOG

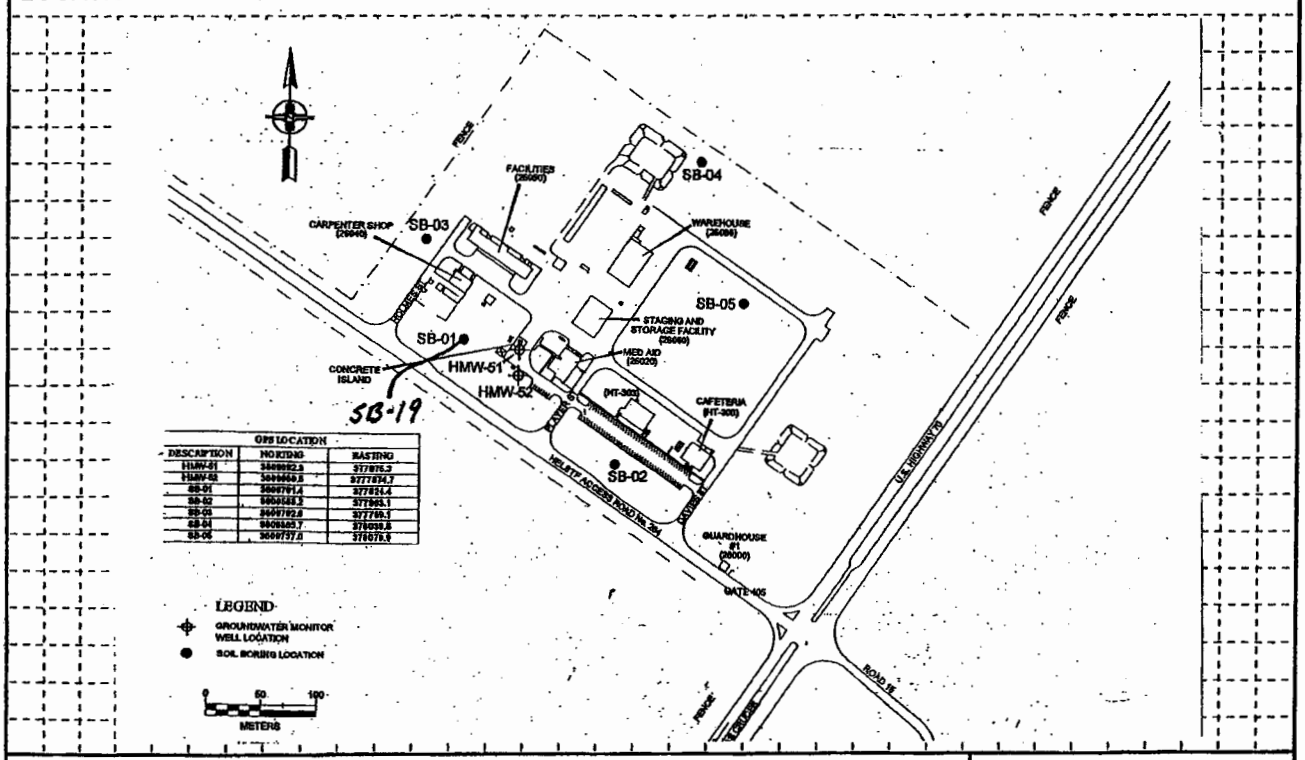
DISTRICT: WSMR		HOLE NO.: SB-019
1. COMPANY NAME: NORTH WIND, INC	2. DRILLING SUBCONTRACTOR: RABA KISTNER	SHEET 1 OF 4 SHEETS
3. PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION	4. LOCATION: HELSTF TSA WSMR	
5. NAME OF DRILLER: ~~MANNY DUENEZ~~ JOE CHAVEZ	6. MANUFACTURER'S DESIGNATION OF DRILL: CME 75	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME 75; 4 1/4 INCH ID HSA, 5 FT FLIGHTS, INNER BIT W/HEX RODS, STANDARD SPLIT SPOON	8. HOLE LOCATION: GPS COORDINATES SEE MAP N: 3609698 E: 377815	
	9. SURFACE ELEVATION: T.B.D	
	10. DATE STARTED: 5-13-04	11. DATE COMPLETED: 5-13-04
12. OVERBURDEN THICKNESS: >20 FT	15. DEPTH GROUNDWATER ENCOUNTERED: N/A	
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: N/A	
14. TOTAL DEPTH OF HOLE: 20 FT	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): N/A	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
N/A	N/A	N/A	N/A

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	N/A	PB ANALYSIS	N/A	N/A	N/A	N/A %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	GROUTED	N/A	N/A	[signature]

LOCATION SKETCH/COMMENTS SCALE:



PROJECT	HOLE NO.
HELSTF TSA FUEL SPILL INVESTIGATION	SB-19

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-019

PROJECT: HELSTF FUELSPILL INVESTIGATION

INSPECTOR: N MAIMER

SHEET 2 SHEETS 4

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0						BEGIN DRILLING @ 0941
	1						
	2						
	3						
	4						
	5	SILT (ML), MEDIUM, DRY, YELLOWISH BROWN (10YR 5/4), MOSTLY SILT, SOME GYPSUM (~~10Y~~ 10YR), PALE BROWN (10YR 8/3), TRACE FINE SAND				6	
						10	
	6					12	
						16	
	7						
	8						
	9						
	10						

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-019

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-019

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: N MAIMER

SHEET 3 SHEETS 4

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	10	SILT (ML), A/A, BEDDED				10	
						15	
	11					20	
						30	
	12						
	13						
	14						
	15	POORLY GRADED SAND (SP), LOOSE, DRY, ~~YELLOWISH BROWN~~ REDDISH YELLOW, (7.5YR 6/6), MOSTLY FINE SAND, APROX. 1 INCH LAYER OF GYPSUM CRYSTALS.				12	
						24	
	16					34	
						36	
	17						
	18						
	19						
	20	Bottom of Boring @ 20 FT					

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-019

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-019

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: N MAIMER

SHEET 4 OF SHEETS 4

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	POORLY SORTED SAND (SP), A/A				7	
		CLAY (CL), MEDIUM, DRY, STRONG BROWN (7.5 YR 4/6), MOSTLY CLAY, LITTLE FINE SAND, FEW SILT, TRACE TO FEW GYPSUM CRYSTALS				8	
	21					12	
	~~22~~					12	
	22	Bottom of Exploration @ 22 FT					

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-019

HTRW DRILLING LOG

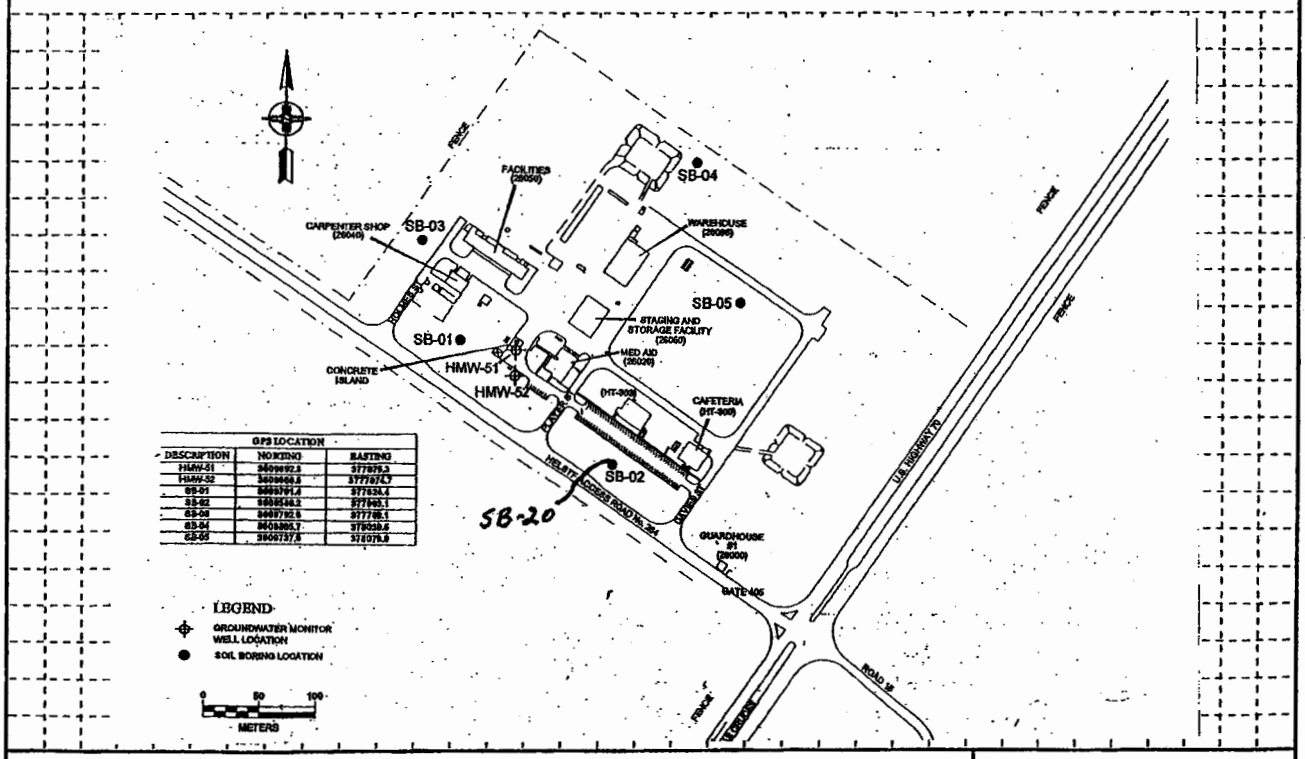
DISTRICT: WSMR		HOLE NO.: SB-20
1. COMPANY NAME: NORTH WIND, INC.	2. DRILLING SUBCONTRACTOR: RABA KISTNER	SHEET 1 OF 4 SHEETS
3. PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION	4. LOCATION: WSMR	
5. NAME OF DRILLER: ~~MANNY DUENEZ~~ JOE CHAVEZ	6. MANUFACTURER'S DESIGNATION OF DRILL: CME 75	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME 75 4.25 INCH ID HSA, 5 FOOT FLIGHTS, INNER BIT W/HEX RODS, STANDARD SPLIT SPOON	8. HOLE LOCATION: GPS COORDINATES ~~UGGS-84~~ SEE MAP N: 3609588 E: 377963	
	9. SURFACE ELEVATION: T.B.D.	
	10. DATE STARTED: 5-13-04	11. DATE COMPLETED: 5-13-04
12. OVERBURDEN THICKNESS: 720 FT	15. DEPTH GROUNDWATER ENCOUNTERED: N/A	
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: N/A	
14. TOTAL DEPTH OF HOLE: 20 FT	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): N/A	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
N/A	N/A	N/A	N/A

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
		Pb ANALYSIS				%

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	GROUTED			[signature]

LOCATION SKETCH/COMMENTS — SCALE:



GPS LOCATION		
DESCRIPTION	NORTHING	EASTING
HMW-51	[illegible]	[illegible]
HMW-52	[illegible]	[illegible]
SB-01	[illegible]	[illegible]
SB-02	[illegible]	[illegible]
SB-03	[illegible]	[illegible]
SB-04	[illegible]	[illegible]
SB-05	[illegible]	[illegible]

PROJECT	HOLE NO.
HELSTF TSA FUEL SPILL INVESTIGATION	SB-20

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-20

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: N. MAIMER

SHEET 2 SHEETS 4

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0						BEGIN DRILLING 1223
	1						
	2						
	3						
	4						
	5	SILT (ML), STIFF, DRY, YELLOWISH BROWN (10YR 5/4), MOSTLY SILT, TRACE SAND				15	
		POORLY SORTED SAND (SP), STIFF (VERY) DRY, REDDISH YELLOW (7.5YR 6/6), MOSTLY FINE SAND, SOME CALICHE, BEDDED.				30	
	6					35	
						40	
	7						
	8						
	9						
	10						

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-20

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-20

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: N MAIMER

SHEET 3 SHEETS 4

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	10	POORLY SORTED SAND (SP), A/A				12	
		POORLY SORTED SAND (SP), ~~MEDIU~~ LOOSE, DRY, REDDISH YELLOW (7.5 YR 6/6), MOSTLY FINE SAND, FEW CALICHE.				14	
	11					13	
						14	
	12						
	13						
	~~14~~						
	14						
	15	POORLY SORTED SAND (SP), A/A, TRACE GYPSUM CRYSTALS				2	
						10	
	16					15	
						22	
	17						
	18						
	19						
	20	Bottom of Boring @ 20FT					

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-20

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-20

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: N MAIMER

SHEET 4 SHEETS 4

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	POORLY SORTED SAND (SP), N/A, STIFF, SLIGHTLY CEMENTED INTERVALS				13	
						33	
	21					35	
						40	
	22	Bottom of Exploration @ 22 Ft					

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-20

HTRW DRILLING LOG

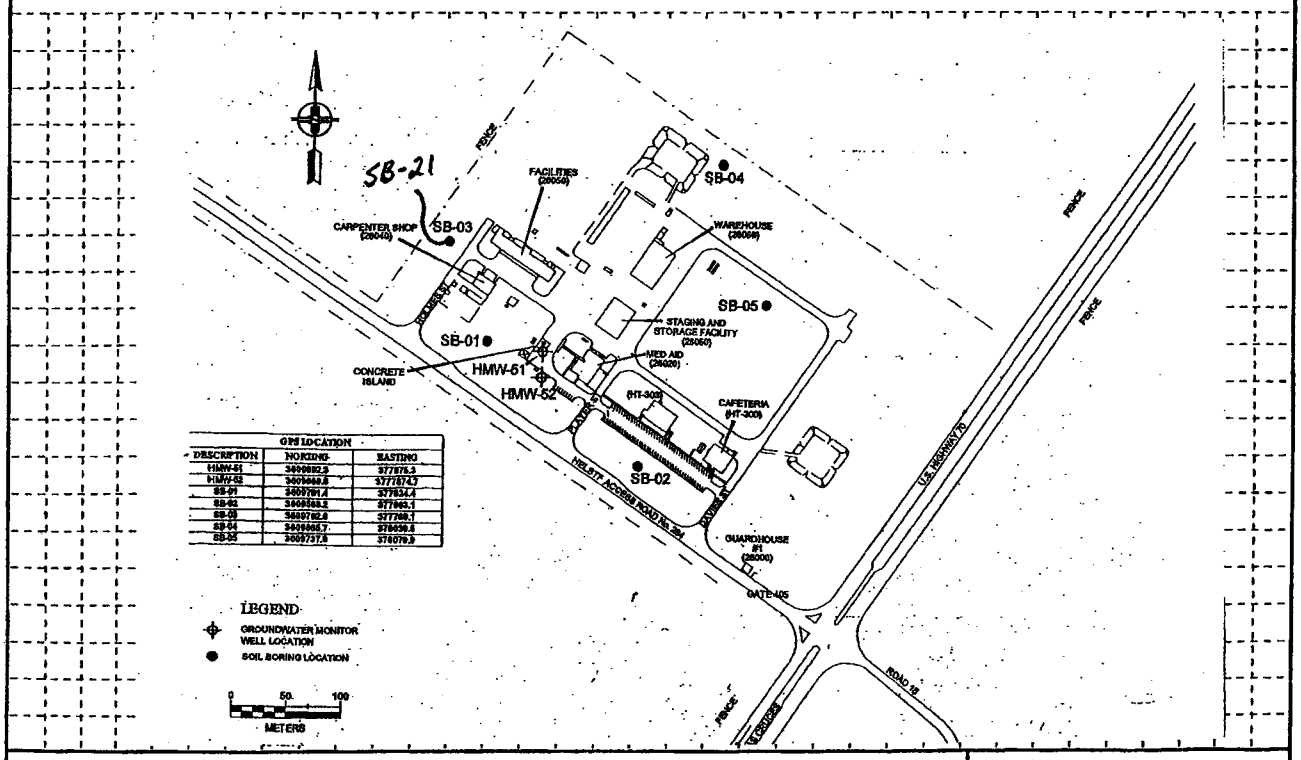
DISTRICT: WSMR		HOLE NO.: SB-21
1. COMPANY NAME: NORTH WIND, INC	2. DRILLING SUBCONTRACTOR: RABA KISTNER	SHEET 1 OF 4 SHEETS
3. PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION	4. LOCATION: HELSTF TSA WSMR	
5. NAME OF DRILLER: JOE CHAVEZ	6. MANUFACTURER'S DESIGNATION OF DRILL: CME 75	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME 75, 4.25 INCH ID HSA, 5 FOOT FLIGHTS, INNER BIT W/HEX RODS, STANDARD SPLIT SPOON	8. HOLE LOCATION: GPS COORDINATES SEE MAP N: 3609804 E: 377779	
	9. SURFACE ELEVATION: T.B.D.	
	10. DATE STARTED: 5-13-04	11. DATE COMPLETED: 5-14-04
12. OVERBURDEN THICKNESS: > 20 FT	15. DEPTH GROUNDWATER ENCOUNTERED: N/A	
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: N/A	
14. TOTAL DEPTH OF HOLE: 20 FT	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): N/A	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
N/A	N/A	N/A	N/A

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	N/A	Pb ANALYSIS	N/A	N/A	N/A	N/A %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	GROUTED	N/A	N/A	[signature]

LOCATION SKETCH/COMMENTS SCALE:



DESCRIPTION	GPS LOCATION NORTHING	EASTING
HMW-51	3609892.9	377876.3
HMW-52	3609866.8	377874.7
SB-01	3609791.4	377834.4
SB-02	3609588.3	377865.1
SB-03	3609762.8	377798.1
SB-04	3609866.7	378036.8
SB-05	3609737.9	378079.9

PROJECT	HOLE NO.
HELSTF TSA FUEL SPILL INVESTIGATION	SB-21

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-21

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: N. MAIMER

SHEET 2 SHEETS 4

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0						BEGIN DRILLING @ 5/13/04 - 0642
	1						
	2						
	3						
	4						
	5	POORLY SORTED SAND (SP), MEDIUM DENSE, DRY, PINK (7.5YR 7/3) MOSTLY FINE SAND, SOME SILT, ~~SOME~~ FEW CALICHE, BEDDED SLIGHTLY				6	
						9	
	6					15	
						14	
	7						
	8						
	9						
	10						

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-21

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-21

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: N. MAIMER

SHEET 3 OF SHEETS 4

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	10	SILT (ML), STIFF, DRY, YELLOWISH BROWN (10 YR 5/4), MOSTLY SILT, SOME GYPSUM, TRACE FINE SAND				9	
						14	
	11					16	
						20	
	12						
	13						
	14						
	15	SILT (ML), A/A				8	
						15	
	16	CLAY (CL), VERY STIFF, DRY, STRONG BROWN (7.5 YR 4/6), MOSTLY CLAY, FEW SILT, FEW GYPSUM CRYSTALS				21	
						22	
	17						
	18						
	19						
	20	Bottom of Boring @ 20 FT					

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-21

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-21

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: N. MAIMER

SHEET 4 OF SHEETS 4

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	~~CLAY~~ MC CLAY (CL), A/A				10	
						20	
	21	SILT (ML), STIFF, DRY, YELLOWISH BROWN (10 YR 5/4), MOSTLY SILT, LITTLE FINE SAND				23	
						26	
	22	Bottom of Exploration @ 22 FT					

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-21

HTRW DRILLING LOG

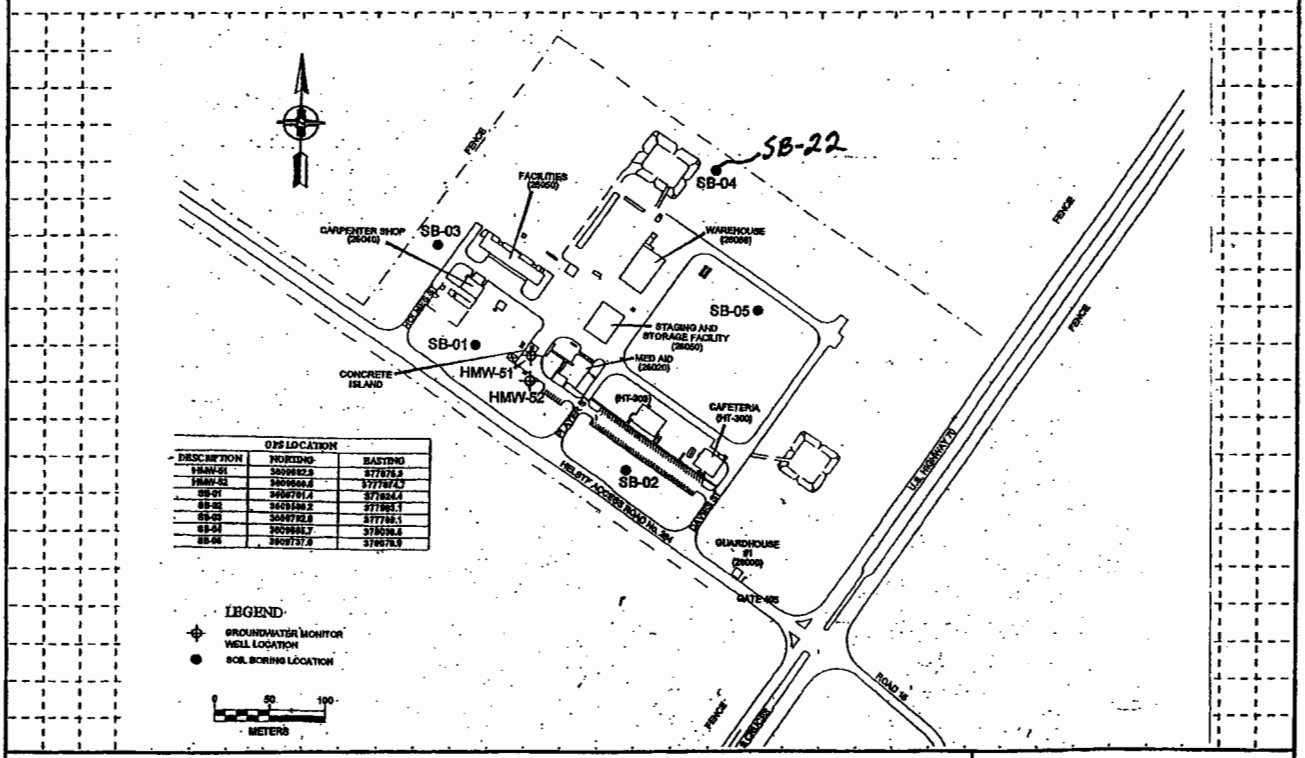
DISTRICT: WSMR		HOLE NO.: SB-22
1. COMPANY NAME: NORTH WIND, INC	2. DRILLING SUBCONTRACTOR: RABA KISTNER	SHEET 1 OF 4 SHEETS
3. PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION	4. LOCATION: HELSTF TSA WSMR	
5. NAME OF DRILLER: J. CHAVEZ	6. MANUFACTURER'S DESIGNATION OF DRILL: SME 75	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME 75; 4.25 INCH ID HSA, 5 FT FLIGHTS, INNER BIT W/HEX RODS, STANDARD SPLIT SPOON	8. HOLE LOCATION: GPS COORDINATE SEE MAP N: 3609870 E: 378038	
	9. SURFACE ELEVATION: TBD	
	10. DATE STARTED: 5-13-04	11. DATE COMPLETED: 5-13-04
12. OVERBURDEN THICKNESS: > 20 FT	15. DEPTH GROUNDWATER ENCOUNTERED: N/A	
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: N/A	
14. TOTAL DEPTH OF HOLE: 20 FT	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): N/A	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
N/A	N/A	N/A	N/A

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	N/A	Pb ANALYSIS	N/A	N/A	N/A	N/A %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	GROUTED	N/A	N/A	[signature]

LOCATION SKETCH/COMMENTS SCALE:



PROJECT	HOLE NO.
HELSTF TSA FUEL SPILL INVESTIGATION	SB-22

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-22

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: N MAIMER

SHEET 2 SHEETS 4

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0						BEGIN DRILLING 1612
	1						
	2						
	3						
	4						
	5	SILT (ML) STIFF, DRY, YELLOWISH BROWN (10 YR 5/4), MOSTLY SILT, FEW SAND, SOME GYPSUM, BEDDED.				20	
						28	
	6					30	
						32	
	7						
	8						
	9						
	10						

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-22

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-22

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: N MAIMER

SHEET 3 SHEETS 4

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	10					16	
						27	
	11					37	
						42	
	12	SILT(ML), A/A					
	13						
	14						
	15	POORLY SORTED SAND(SP), DENSE, DRY, REDDISH YELLOW (7.5YR 6/6), MOSTLY FINE SAND, FEW CALICHE, SOME BEDDING				10	
						26	
	16					30	
						40	
	17						
	18						
	19						
	20	Bottom of Boring @ 20FT					

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-22

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-22

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: N MAIMER

SHEET 4 SHEETS 4

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	POORLY SORTED SAND (SP), A/A				9	
						12	
	21	SILT (ML) STIFF DRY, YELLOWISH BROWN (10YR 5/4), MOSTLY SILT, SOME GYPSUM				20	
		POORLY SORTED SAND (SP), MEDIUM DENSE, DRY, REDDISH YELLOW (7.5YR 6/6), MOSTLY FINE SAND, FEW CALICHE, SOME BEDDING				23	
	22	Bottom of Exploration @ 22 FT					

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-22

HTRW DRILLING LOG

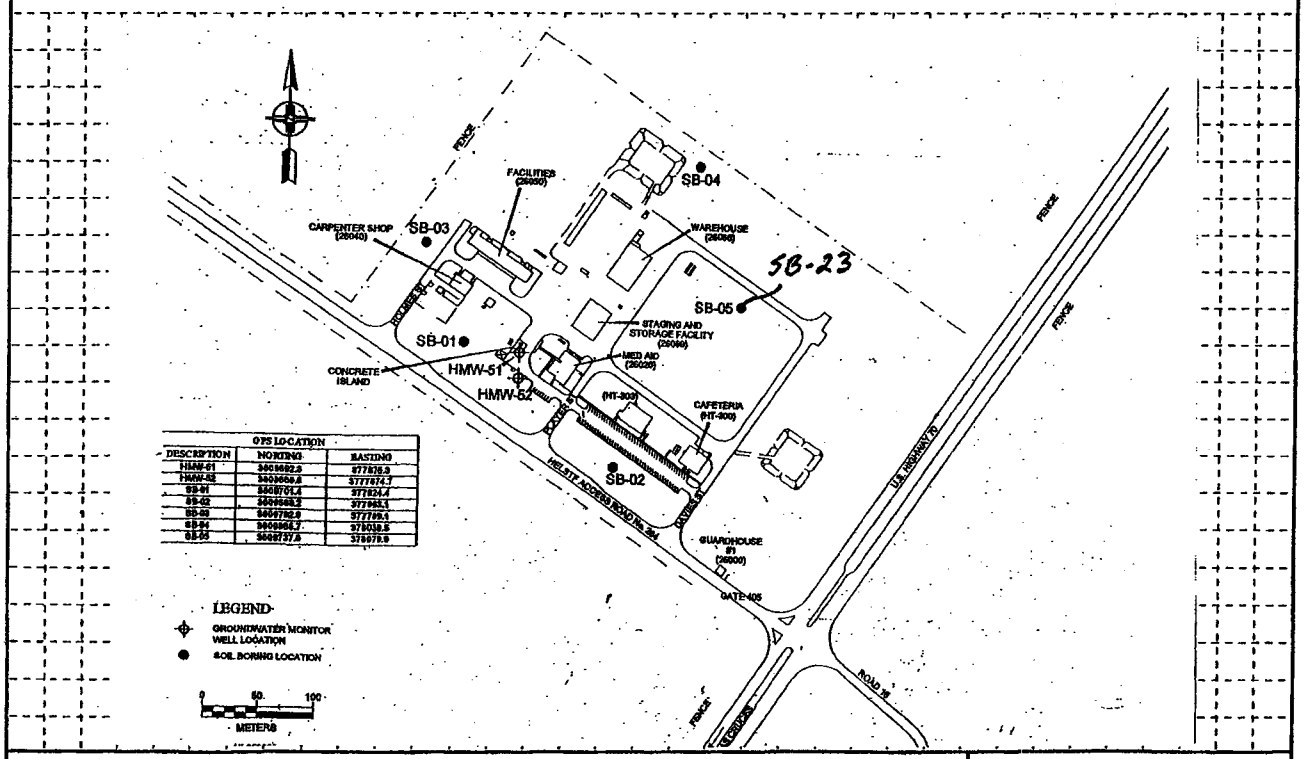
DISTRICT: WSMR	HOLE NO.: SB-23	
1. COMPANY NAME: NORTH WIND, INC	2. DRILLING SUBCONTRACTOR: RABA KISTNER	SHEET 1 OF 4 SHEETS
3. PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION	4. LOCATION: HELSTF TSA WSMR	
5. NAME OF DRILLER: JOE CHAVEZ	6. MANUFACTURER'S DESIGNATION OF DRILL: CME 75	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: CME 75 4.25 INCH ID HSA, 5 FT FLIGHTS, INNER BIT W/HEX RODS, STANDARD SPLIT SPOON	8. HOLE LOCATION: GPS COORDINATES SEE MAP N: 3609741 E: 378073	
	9. SURFACE ELEVATION: T.B.D.	
	10. DATE STARTED: 5-14-04	11. DATE COMPLETED: 5-14-04
12. OVERBURDEN THICKNESS: > 20 FT	15. DEPTH GROUNDWATER ENCOUNTERED: N/A	
13. DEPTH DRILLED INTO ROCK: N/A	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: N/A	
14. TOTAL DEPTH OF HOLE: 20 FT	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): N/A	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
N/A	N/A	N/A	N/A

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	N/A	Pb ANALYSIS	N/A	N/A	N/A	N/A %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
N/A	GROUTED	N/A	N/A	[signature]

LOCATION SKETCH/COMMENTS SCALE:



GPS LOCATION		
DESCRIPTION	NORTHING	EASTING
HMW-51	3601602.8	377876.9
HMW-52	3603666.8	377874.7
SB-01	3600701.4	377824.4
SB-02	3600668.2	377965.1
SB-03	3602782.9	377749.1
SB-04	3603664.3	378039.5
SB-05	3602797.3	378079.9

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO.: SB-23

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-23

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: N. MAIMER

SHEET 2 SHEETS 4

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	0						BEGIN DRILLING @ 1745 5-13-04
	1						
	2						
	3						
	4						
	5	SILT (ML), MEDIUM DENSE, DRY, PINK (7.5 YR 7/3) MOSTLY SILT, SOME GYPSUM, LITTLE SAND, SLIGHTLY BEDDED.				8	
						16	
	6					21	
						25	
	7						
	8						
	9						
	10						

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-23

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-23

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: N. MAIMER

SHEET 3 SHEETS 4

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	10	SILT (ML), MEDIUM DENSE, DRY, YELLOWISH BROWN (10YR 5/4), MOSTLY SILT, LITTLE GYPSUM, SLIGHTY BEDDED				13	
						30	
	11					30	
						32	
	12						
	13						
	14						
	15	SILT (ML), A/A				12	
						30	
	16	POORLY SORTED SAND, LOOSE, DRY, REDDISH YELLOW (7.5YR 6/6), MOSTLY FINE SAND				40	
						50 @4"	
	17						
	18						
	19						
	20	Bottom of Boring @ 20FT					

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

HOLE NO. SB-23

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: SB-23

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

INSPECTOR: N. MAIMER

SHEET 4 OF SHEETS 4

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	20	POORLY SORTED SAND (SP), A/A				8	
						24	
	21					27	
						42	
	22	Bottom of Exploration @ 22 FT.					

PROJECT: HELSTF TSA FUEL SPILL INVESTIGATION

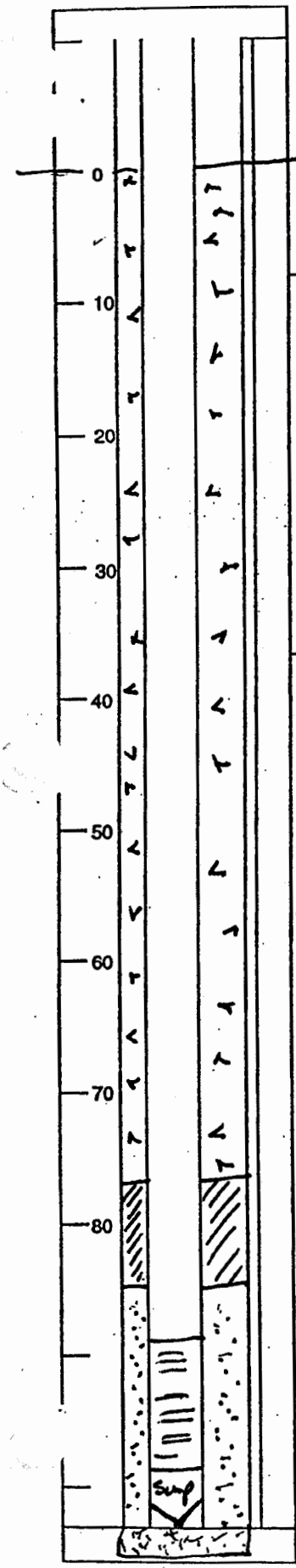
HOLE NO. SB-23

APPENDIX G

Well Installation Details

Well No.: HMW-52
Boring No. X-Ref: HMW-52

GS. MONITOR WELL CONSTRUCTION SUMMARY



Survey Coords: T.B.D.
N. 3609694 E. 377874

Elevation Ground Level: T.B.D.
Top of Casing: FLUSH

Drilling Summary:

Total Depth: 100.2 FT
Borehole Diameter: ~ 11.5-12 INCHES
Casing Stick-up Height: .75 FT
Driller: MANLEY DUBARZ
RABA KISTNER OF ELPASO
Rig: CME 750
Bit(s): 6.25" HSA
Drilling Fluid: NONE (POTABLE WATER)
WATER USED ONLY TO LUBRICATE CLAY
Protective Casing: NONE.

Construction Time Log:

Task	Start Date	Start Time	Finish Date	Finish Time
Drilling 6.25 INCH HSA	5/4/04	14:00	5/7/04	18:00
Geophys. Logging:	N/A	N/A	N/A	N/A
Casing: PVC CS/SCREEN	5/7/04	1300	5/7/04	1400
Filter Placement:	5/7/04	1400	5/7/04	14:30
Bentonite Seal:		1430		1530
Development:	5/7/04	1500	5/ Purge Dry	

Well Design & Specifications

Basis: Geologic Log: ✓ Geophysical Log: ___
Casing String (s): C = Casing S = Screen

Depth	String(s)	Elevation
0 - 88.5	PVC CASING	N/A
88.5 - 93.5	PVC .010 SCREEN	
93.5 - 98.5	PVC Sump	
98.5 - 99.0	PVC CAP	

Casing: C1 9.90, 10.00, 10.01, 10.01, 10.02, 10.04, 10.02, 10.02, 10.01
C2

Screen: S1 5.01 FT / Sump 5.0 FT
S2 CAP .6 FT

Filter Pack: 10/20 OLDS BAY / NORTON SILICA SAND (12 BAGS) BROUGHT TO TOP @ 85.2
Grout Seal:

Bentonite Seal: PDSCO BENTONITE CHIPS ELDORADO ARKANSAS TOP @ 78 (2 50LB BAGS)

Well Development:

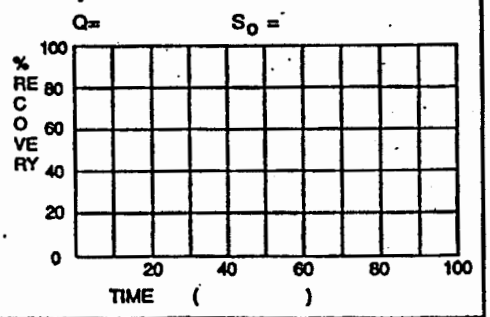
SURGING & BAILING DRY
BY HAND W/ 3" PVC BAILER

Stabilization Test Data:

Time	pH	Spec. Cond.	Temp (C)
1525	7.75	8.25 x 1000	88°
1537	8.13	7.92 x 1000	73.2

Recovery Data:

Q= S$_0$ =



Comments:

WELL ACHIEVED 10% OF STATIC AFTER APPROXIMATELY 4-5 DAYS AFTER INSTALLATION
SLOW PRODUCER

SITE NAME HELSTF TSA
LOCATION WHITE SANDS MISSILE RANGE
WC
SUPERVISED BY: [signature]
DATE: 5-6-04

APPENDIX H

Investigative Derived Waste Manifests

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. NM2750211235

Manifest Doc. No.

2. Page 1 of 1

3. Generator's Name and Mailing Address

-BUD91870

4. Generator's Phone ( ) 678 7625

5. Transporter 1 Company Name

6. US EPA ID Number N/A

A. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address

10. US EPA ID Number N/A

C. Facility's Phone

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. Waste Carbon Impacted Soil	1		6	Yd
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

Carbon Impacted / Non Hazardous

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Cell E (90)

16. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name: N. DEBORAH KING | Signature | Month 06 Day 21 Year 04

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name | Signature | Month | Day | Year

GENERATOR

TRANSPORTER

FACILITY

GENERATOR'S COPY

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No. NM2750216235	Manifest Doc. No. WS-002	2. Page 1 of 1

GENERATOR

3. Generator's Name and Malling Address: US Army WSMR, White Sands - BLDG 1870, Missile Range, NM

4. Generator's Phone (505) 678-7625

High Energy Laser Test Facility, WSMR, NM

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
Rhino Environmental	N/A	(713) 886-4255
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
Rhino DP-1051, 1.7 mls N NM/TX Stateline, Hwy 54, Otero County, NM	N/A	(915) 886-4255

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. Hydrocarbon Impacted Soil	1	dump	15	yd³
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above: Gasoline Impacted / Non-Hazardous

E. Handling Codes for Wastes Listed Above:

15. Special Handling Instructions and Additional Information: Cell E (grn)

16. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
M. DEBORAH KING	Deborah King	06	28	04

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Henry Rivero	[signature]	06	28	04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space: line 5 address: P.O. Box 310, Canutillo, TX 79835

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day

TRANSPORTER #2

RHINO ENVIRONMENTAL SERVICES, INC.

GENERATOR'S WASTE PROFILE SHEET

Waste Generator Information

1. Generator's Name: US Army White Sands Missile Range 2. SIC Code: _____

BLDG 1870

3. Generator's Address: White Sands Missile Range, New Mexico

4. Site Address: High Energy Laser Systems Test Facility (HELSTF), White Sands Missile Range, NM 88002

5. LUST #: _____ 6. USEPA/Federal ID #: _____ 7. State ID#: _____

8. Technical Contact: Rene R. Rodriguez 9. Phone: (505) 522-3093

Waste Stream Information

1. Type of Contaminant: Gasoline X Diesel _____ Waste Oil _____ Other _____

2. Process Generating Waste: Field Investigation / Drilling

3. Projected Volume: 30 CY 4. Soil: X Water: _____ Sludge: _____

5. Special Instructions/Supplemental Information: _____

Waste Soil / Water Properties

1. Type of Soil - Sand: _____ Gravel: _____ Sandy Loam: X Clay: X Other: _____
2. Analytical Data - BTEX: 6.4 ppm, Method 8021B
   TPH: 73 ppm, Method 8015B
   TCLP: _____ ppm, Method _____
   Other: Ignitability, Method SW-846 Ch 7.1

Representative Sample Certification

1. Sampler's Name: Joey Gillespie 2. Sample Date: May 17, 2004

3. Sampler's Title: Geologist 4. Sampler's Employer: North Wind, Inc.

5. Sampler's Signature: See Chain Of Custody

6. Analytical Data Enclosed (inclusive of quality control data and COC) - Yes: X No: _____

Generator Certification

By signing this profile sheet, the generator certifies that:

1. This waste is not a "Hazardous Waste" as defined by USEPA and/or the state/province.
2. This waste does not contain regulated radioactive materials or regulated concentrations of PCBs (polychlorinated Biphenyls).
3. This sheet and attachments contain true and accurate descriptions of the waste material. All relevant information regarding known or suspected hazards in the possession of the Generator has been disclosed.
4. The analytical data presented herein or attached hereto were derived from testing representative samples taken in accordance with 40 CFR 261.20(c) or equivalent rules.
5. If any changes occur in the character of the waste, the Generator shall notify the Contractor prior to providing the waste to the Contractor.

Signature: M Deborah King Title: HAZMAT TECH

Printed Name: M. DEBORAH KING Date: 06/28/04

MEVATEC CORPORATION
P.O. Box 399
Bldg. 126
WSMR, NM 88002
(505) 678-0263

TRACE ANALYSIS

CHAIN OF CUSTODY RECORD #005

PAGE 1 OF 1

PROJECT NO.: 2080.424

PROJECT NAME: HLSTF TSA FUEL SPILL INVESTIGATION

SAMPLER'S SIGNATURE:

DATE COLLECTED	TIME COLLECTED	SAMPLE ID.	MATRIX	LAB. NO.	NO. OF CONTAINERS	VOC	LEAD (Pb)	TCLP METALS	BETX	PAH	GRO					REMARKS
5/13/04	0800	HLSF-0154-TB-~~01~~-005	WATER		2	X										HLSF-0154-TB-04-005
5/13/04	1016	HLSF-0154-SB-019-(10-12)	SOIL		1		X									
5/13/04	1057	-(20-22)			1		X									
5/13/04	1149	HLSF-0154-SB-020-(10-12)			1		X									
5/13/04	1309	-(20-22)			1		X									
5/14/04	0720	HLSF-0154-SB-021-(10-12)			1		X									
5/14/04	0755	-(20-22)			1		X									
5/13/04	1638	HLSF-0154-SB-022-(10-12)			1		X									
5/13/04	1706	-(20-22)			1		X									
5/14/04	0912	HLSF-0154-SB-023-(10-12)			1		X									
5/14/04	0955	-(20-22)			1		X									
5/17/04	1000	~~HLSF-0154-SB-004-0504~~			2		X	X	X	X						~~Contents of Bottle~~
5/17/04	0915	~~HLSF-0154-SB-005-0504~~			2			X	X	X	X					~~Contents of Bottle~~

PROJECT INFORMATION	SAMPLES RECEIVED	1. RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)	3. RECEIVED BY LABORATORY: (SIGNATURE)
PROJECT MANAGER: William Coker, Rick Rodriguez	TOTAL NO. OF CONTAINERS	(PRINTED NAME)	(PRINTED NAME)	(PRINTED NAME)
SHIPPING ID. NO.:	CHAIN OF CUSTODY SEALS	RECEIVED BY:	RECEIVED BY:	(COMPANY)
	GOOD CONDITION/CHILLED	(TIME / DATE)	(TIME / DATE)	(TIME / DATE)
VIA: FEDEX Priority	CONFORMS TO RECORD	SPECIAL INSTRUCTIONS / COMMENTS: Temp Blank Included		

PLEASE USE BALL POINT PEN

DISTRIBUTION: WHITE - PROJECT FILES; YELLOW - LAB; - FIELD COPY

Analytical and Quality Control Report

Rene Rodriguez
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: May 27, 2004

Work Order: 4051811

Project Location:
Project Name: HELSTF TSA Fuel Spill Investigation
Project Number: 2080.424

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
34378	HLSF-0154-SC-004-0504	soil	2004-05-17	10:00	2004-05-18
34379	HLSF-0154-SC-005-0504	soil	2004-05-17	09:15	2004-05-18

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 2 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 34378 - HLSF-0154-SC-004-0504

Analysis:	Ignitability	Analytical Method:	SW-846 Ch. 7.1	Prep Method:	N/A
QC Batch:	9826	Date Analyzed:	2004-05-19	Analyzed By:	MW
Prep Batch:	8653	Date Prepared:	2004-05-19	Prepared By:	MW

Parameter	Flag	RL Result	Units	Dilution	RL
Ignitability		non-ignitable		1	0.00

Sample: 34379 - HLSF-0154-SC-005-0504

Analysis:	Ignitability	Analytical Method:	SW-846 Ch. 7.1	Prep Method:	N/A
QC Batch:	9826	Date Analyzed:	2004-05-19	Analyzed By:	MW
Prep Batch:	8653	Date Prepared:	2004-05-19	Prepared By:	MW

Parameter	Flag	RL Result	Units	Dilution	RL
Ignitability		non-ignitable		1	0.00

Duplicate (1) QC Batch: 9826

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Ignitability	non-ignitable	non-ignitable		1	0	20

Analytical Report

Sample: 34378 - [redacted]

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	9793	Date Analyzed:	2004-05-18	Analyzed By:	MS
Prep Batch:	8693	Date Prepared:	2004-05-18	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	10	0.00100
Toluene		<0.0100	mg/Kg	10	0.00100
Ethylbenzene		<0.0100	mg/Kg	10	0.00100
Xylene		<0.0100	mg/Kg	10	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.867	mg/Kg	10	0.100	87	74.4 - 114
4-Bromo?uorobenzene (4-BFB)		0.818	mg/Kg	10	0.100	82	76.9 - 112

Sample: 34379 - [redacted]

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	9793	Date Analyzed:	2004-05-18	Analyzed By:	MS
Prep Batch:	8693	Date Prepared:	2004-05-18	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.459	mg/Kg	10	0.00100
Toluene		2.84	mg/Kg	10	0.00100
Ethylbenzene		1.52	mg/Kg	10	0.00100
Xylene	[1]	6.43	mg/Kg	10	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)	[2]	1.38	mg/Kg	10	0.100	138	74.4 - 114
4-Bromo?uorobenzene (4-BFB)	[3]	1.46	mg/Kg	10	0.100	146	76.9 - 112

Method Blank (1) QC Batch: 9793

Parameter	Flag	Result	Units	RL
Benzene		<0.0100	mg/Kg	0.001
Toluene		<0.0100	mg/Kg	0.001
Ethylbenzene		<0.0100	mg/Kg	0.001
Xylene		<0.0100	mg/Kg	0.001

[1] Estimated concentration value is greater than the standard curve.
[2] High surrogate recovery due to peak interference.
[3] High surrogate recovery due to peak interference.

Sample: 34377 - HLSF-0154-SB-023-(20-22)

Analysis:	Pb, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9813	Date Analyzed:	2004-05-20	Analyzed By:	RR
Prep Batch:	8680	Date Prepared:	2004-05-19	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		3.05	mg/Kg	1	1.00

Sample: 34378 - HLSF-0154-SC-004-0504

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9813	Date Analyzed:	2004-05-20	Analyzed By:	RR
Prep Batch:	8680	Date Prepared:	2004-05-19	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<1.00	mg/Kg	1	1.00
Total Barium		49.0	mg/Kg	1	1.00
Total Cadmium		<0.500	mg/Kg	1	0.500
Total Chromium		8.18	mg/Kg	1	1.00
Total Lead		3.00	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 34379 - HLSF-0154-SC-006-0504

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9813	Date Analyzed:	2004-05-20	Analyzed By:	RR
Prep Batch:	8680	Date Prepared:	2004-05-19	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<1.00	mg/Kg	1	1.00
Total Barium		77.3	mg/Kg	1	1.00
Total Cadmium		<0.500	mg/Kg	1	0.500
Total Chromium		20.3	mg/Kg	1	1.00
Total Lead		5.30	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Method Blank (1) QC Batch: 9683

Parameter	Flag	Result	Units	RL
Total Silver		<0.200	mg/Kg	0.2
Total Arsenic		<1.00	mg/Kg	1
Total Barium		<1.00	mg/Kg	1
Total Cadmium		<0.500	mg/Kg	0.5

continued ...

HMMC HAZARDOUS WASTE DATA INPUT SHEET

DATE: 06-03-2004 NAME: FRANK WILGA

CONTAINER INFORMATION

CONTAINER BAR CODE NO.(s) HM 75006232, 6233, 6234

SIZE / TYPE: 55GAL/METAL/closed GROSS WEIGHT: 1,499 Lbs.

WASTE CONTAINER SUPPLIED BY HMMC? YES / (NO)

CONTAINER LOCATION IN 90 DAY: 2

WASTE ORIGIN: HELSTF TSA GROUND WATER

NON-REGULATED STORAGE 1.	FLAMMABLE STORAGE 2. ✓	SHELTER 3.

MATERIAL: PURGE WATER WELL NO. HMW048

MSDS(S)____ PENDING ANALYSIS ✓ OTHER____

SOURCE

INTERNAL

ORGANIZATION:

NAME:

PHONE:

SIGNATURE:

EXTERNAL

CONTRACTOR NAME: BAE Systems

PHONE: 678-2853

C.O.R. NAME: Romero

J.O. # :

SIGNATURE: William M. Little

Date Submitted For Analysis: 06-03-2004

Date Analysis Received:

REMARKS

6232 - 507 lbs.

6233 - 513 lbs.

6234 - 479 lbs.

Chain of Custody Form

Hazardous Waste Minimization Center
Supply/Storage Branch
Maintenance and Supply Division
Installation Support Directorate

Sample Origin:
HELSTF TSA Ground water

Type Sample:

Top ☐ Middle ☐ Bottom ☐ Composite ☒

Sample I.D. Numbers: HM

Sampled by:
1) (Print Name): William M Little
2) (Signature): William M. Little
3) (Date): 3 Jun 2004

Received by:
1) (Print Name):
2) (Signature):
3) (Date):

Received by:
1) (Print Name):
2) (Signature):
3) (Date):

Received by:
1) (Print Name):
2) (Signature):
3) (Date):

Received by:
1) (Print Name):
2) (Signature):
3) (Date):

Received by:
1) (Print Name):
2) (Signature):
3) (Date):

Charge To:

Name:

Organization:

Phone:

HMMC HAZARDOUS WASTE DATA INPUT SHEET

DATE: 05-18-04 NAME: John Hunter

CONTAINER INFORMATION

CONTAINER BAR CODE NO.(s) HM 75006217, 6218, 6219

SIZE / TYPE: 55gal/metal/open GROSS WEIGHT: SEE REMARKS

WASTE CONTAINER SUPPLIED BY HMMC? YES / NO

CONTAINER LOCATION IN 90 DAY: _____

NON-REGULATED STORAGE	FLAMMABLE STORAGE	SHELTER
1. X	2.	3.

MATERIAL: Oily Soil from HELSTF Drilling Operations/ Gasoline Spill Monitering Well/ Location

MSDS(S)_____ ANALYSIS X OTHER_____

SOURCE:
HMMC:_____ OTHER: ORGANIZATION: Northwind Inc (BAE)
NAME: Benny Flores
PHONE: 678-1308
SIGNATURE: [signature]

REMARKS

Date submitted for analysis: 05/17/04

Date received analysis: _____

HM 75006217 — 460 LBS
6218 — 666 LBS
6219 — 244 LBS

TOTAL 1360 LBS

HMMC HAZARDOUS WASTE DATA INPUT SHEET

DATE: 05-18-04 NAME: John Hunter

CONTAINER INFORMATION

CONTAINER BAR CODE NO.(s) HM 7500 6216

SIZE / TYPE: 55 gal/closed/metal GROSS WEIGHT: 4 14 LBS

WASTE CONTAINER SUPPLIED BY HMMC? YES / (NO)

CONTAINER LOCATION IN 90 DAY: |

NON-REGULATED STORAGE	FLAMMABLE STORAGE	SHELTER
1. X	2.	3.

MATERIAL: Purge Water from HELSTF Drilling Operations / Gasoline Spill Monitering Well Location: / POL Area TSA

MSDS(S)____ ANALYSIS X OTHER____

SOURCE:
HMMC:____ OTHER: ORGANIZATION: Northwind Inc. (BAE)
NAME: Benny Flores
PHONE: 678-1308
SIGNATURE: Benny Flores

REMARKS

Date submitted for analysis: 05/17/04

Date received analysis: / /

HMMC HAZARDOUS WASTE DATA INPUT SHEET

DATE: 06-03-2004 NAME: FRANK WILGA

CONTAINER INFORMATION

CONTAINER BAR CODE NO.(s) HM 75006232, 6233, 6234

SIZE / TYPE: 55GAL/METAL/closed GROSS WEIGHT: 1,499 lbs.

WASTE CONTAINER SUPPLIED BY HMMC? YES / (NO)

CONTAINER LOCATION IN 90 DAY: 2

WASTE ORIGIN: HELSTF TSA GROUND WATER

NON-REGULATED STORAGE 1.	FLAMMABLE STORAGE 2. ✓	SHELTER 3.

MATERIAL: PURGE WATER WELL NO. HMW048

MSDS(S)____ PENDING ANALYSIS ✓ OTHER____

SOURCE

INTERNAL

ORGANIZATION:

NAME:

PHONE:

SIGNATURE:

EXTERNAL

CONTRACTOR NAME: BAE Systems

PHONE: 678-2853

C.O.R. NAME: Romero

J.O. # :

SIGNATURE: William M. Lidd

Date Submitted For Analysis: 06-03-2004

Date Analysis Received:

REMARKS

6232 - 507 lbs.

6233 - 513 lbs.

6234 - 479 lbs.

Chain of Custody Form

Hazardous Waste Minimization Center
Supply/Storage Branch
Maintenance and Supply Division
Installation Support Directorate

Sample Origin:
HELSTF TSA Ground water

Type Sample:

Top ☐ Middle ☐ Bottom ☐ Composite ☒

Sample I.D. Numbers: HM

Sampled by:
1) (Print Name): William M. Little
2) (Signature): William M. Little
3) (Date): 3 JAN 2004

Received by:
1) (Print Name):
2) (Signature):
3) (Date):

Received by:
1) (Print Name):
2) (Signature):
3) (Date):

Received by:
1) (Print Name):
2) (Signature):
3) (Date):

Received by:
1) (Print Name):
2) (Signature):
3) (Date):

Received by:
1) (Print Name):
2) (Signature):
3) (Date):

Charge To:

Name:

Organization:

Phone:

HMMC HAZARDOUS WASTE DATA INPUT SHEET

DATE: 05-18-04 NAME: John Hunter

CONTAINER INFORMATION

CONTAINER BAR CODE NO.(s) HM 7500 6217, 6218, 6219

SIZE / TYPE: 55gal / metal / open GROSS WEIGHT: SEE REMARKS

WASTE CONTAINER SUPPLIED BY HMMC? YES / NO

CONTAINER LOCATION IN 90 DAY: |

NON-REGULATED STORAGE	FLAMMABLE STORAGE	SHELTER
1. X	2.	3.

MATERIAL: Oily Soil from HELSTF Drilling Operations / Gasoline Spill Monitering Well / Location

MSDS(S)____ ANALYSIS X OTHER____

SOURCE:
HMMC:____ OTHER: ORGANIZATION: Northwind Inc (BAE)
NAME: Benny Flores
PHONE: 678-1308
SIGNATURE: [signature]

REMARKS

Date submitted for analysis: 05/17/04

Date received analysis:

HM 7500 6217 — 460 LBS
6218 — 666 LBS
6219 — 244 LBS

TOTAL 1360 LBS

HMMC HAZARDOUS WASTE DATA INPUT SHEET

DATE: 05-18-04 **NAME:** John Hunter

CONTAINER INFORMATION

CONTAINER BAR CODE NO.(s) HM 7500 6216

SIZE / TYPE: 55 gal/closed/metal **GROSS WEIGHT:** 4 114 LBS

WASTE CONTAINER SUPPLIED BY HMMC? YES / NO (NO circled)

CONTAINER LOCATION IN 90 DAY: |

NON-REGULATED STORAGE	FLAMMABLE STORAGE	SHELTER
1. X	2.	3.

MATERIAL: Purge Water from HELSTF Drilling Operations / Gasoline Spill Monitering Well Location: / POL Area TSA

MSDS(S) ____ **ANALYSIS** X **OTHER** ____

SOURCE:
HMMC: ____ **OTHER: ORGANIZATION:** Northwind Inc. (BBE)
NAME: Benny Flores
PHONE: 678-1398
SIGNATURE: Benny Flores

REMARKS

Date submitted for analysis: 05/17/04

Date received analysis: / /

APPENDIX I

Soils Analytical Data

Work Order Receipt

Order

Work Order	4051302
Receive Date	at
Requestor	Rene Rodriguez - BAE Systems Analytical Solutions Inc.
Invoicing	Rene Rodriguez - BAE Systems Analytical Solutions Inc.
Purchase Order	N/A
Project	HELSTE TSA Fuel Spill Investigation Project Name = HELSTE TSA Fuel Spill Investigation Project Number = 2080.414
Comment	N/A

Samples

Sample	Field Code	Priority	Matrix	Collect Date	Collect Time	Quantity
33836	HLSF-0154-SB-017-(6.5-7.0))	Normal	soil	2004-05-12	07:00	1
33837	HLSF-0154-SB-017-(11.5-12.0)	Normal	soil	2004-05-12	07:10	1
33838	HLSF-0154-SB-017-(16.5-17.0)	Normal	soil	2004-05-12	07:20	1
33839	HLSF-0154-SB-017-(21.0-21.5)	Normal	soil	2004-05-12	07:40	1
33840	HLSF-0154-SB-017-(26.5-27)	Normal	soil	2004-05-12	07:50	1
33841	HLSF-0154-SB-017-(31.5-32)	Normal	soil	2004-05-12	08:00	1
33842	HLSF-0154-SB-017-(36.5-.37)	Normal	soil	2004-05-12	08:15	1
33843	HLSF-0154-SB-017-(41.5-42)	Normal	soil	2004-05-12	08:30	1
33844	HLSF-0154-SB-018-(6.5-7.0)	Normal	soil	2004-05-12	09:20	1
33845	HLSF-0154-SB-018-(11.5-12.0)	Normal	soil	2004-05-12	09:45	1
33846	HLSF-0154-SB-018-(16.5-17)	Normal	soil	2004-05-12	09:50	1
33847	HLSF-0154-SB-018-(20.5-21.0)	Normal	soil	2004-05-12	10:15	1
33848	HLSF-0154-SB-018-(26.5-27)	Normal	soil	2004-05-12	10:25	1
33849	HLSF-0154-SB-018-(30.5-31)	Normal	soil	2004-05-12	10:35	1
33850	HLSF-0154-SB-018-(36.5-37)	Normal	soil	2004-05-12	10:50	1
33851	HLSF-0154-SB-018-(41.5-42)	Normal	soil	2004-05-12	11:00	1
33852	HLSF-0154-TB-04-003	Normal	water	2004-05-12	05:30	2
33853	HLSF-0154-RB-003-0504	Normal	water	2004-05-12	13:00	9

Sample	Test	Method	Prep	Priority	Due Date
33836	Ag, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.331702-05
	As, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.334491-05
	Ba, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.317578-05
	Cd, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.342871-05
	Cr, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.314656-05
	Hg, Total	S 7471A	N/A	Normal	2004-05-13 09:56:54.326077-05
	Pb, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.328931-05
	Se, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.337271-05
	Semivolatiles	S 8270C	S 3550	Normal	2004-05-13 09:56:54.340083-05
	TPH GRO	S 8015B	S 5035	Normal	2004-05-13 09:56:54.32319-05
	Volatiles	S 8260B	S 5030B	Normal	2004-05-13 09:56:54.320426-05
33837	Ag, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.457792-05
	As, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.460579-05
	Ba, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.443639-05
	Cd, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.46893-05
	Cr, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.44073-05
	Hg, Total	S 7471A	N/A	Normal	2004-05-13 09:56:54.452138-05
	Pb, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.454998-05
	Se, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.463356-05
	Semivolatiles	S 8270C	S 3550	Normal	2004-05-13 09:56:54.466143-05
	TPH GRO	S 8015B	S 5035	Normal	2004-05-13 09:56:54.449246-05
	Volatiles	S 8260B	S 5030B	Normal	2004-05-13 09:56:54.446464-05
33838	Ag, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.584011-05

Work Order Receipt

Sample	Test	Method	Prep	Priority	Due Date
	As, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.586758-05
	Ba, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.569872-05
	Cd, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.594996-05
	Cr, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.566956-05
	Hg, Total	S 7471A	N/A	Normal	2004-05-13 09:56:54.578377-05
	Pb, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.581224-05
	Se, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.589465-05
	Semivolatiles	S 8270C	S 3550	Normal	2004-05-13 09:56:54.592208-05
	TPH GRO	S 8015B	S 5035	Normal	2004-05-13 09:56:54.575489-05
	Volatiles	S 8260B	S 5030B	Normal	2004-05-13 09:56:54.572715-05
33839	Ag, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.710161-05
	As, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.713135-05
	Ba, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.696037-05
	Cd, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.721425-05
	Cr, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.693127-05
	Hg, Total	S 7471A	N/A	Normal	2004-05-13 09:56:54.704497-05
	Pb, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.707356-05
	Se, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.715886-05
	Semivolatiles	S 8270C	S 3550	Normal	2004-05-13 09:56:54.718628-05
	TPH GRO	S 8015B	S 5035	Normal	2004-05-13 09:56:54.701588-05
	Volatiles	S 8260B	S 5030B	Normal	2004-05-13 09:56:54.698856-05
33840	Ag, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.836358-05
	As, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.83918-05
	Ba, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.822163-05
	Cd, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.847572-05
	Cr, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.819236-05
	Hg, Total	S 7471A	N/A	Normal	2004-05-13 09:56:54.830708-05
	Pb, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.833561-05
	Se, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.841992-05
	Semivolatiles	S 8270C	S 3550	Normal	2004-05-13 09:56:54.844776-05
	TPH GRO	S 8015B	S 5035	Normal	2004-05-13 09:56:54.827841-05
	Volatiles	S 8260B	S 5030B	Normal	2004-05-13 09:56:54.824987-05
33841	Ag, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.962403-05
	As, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.965274-05
	Ba, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.948337-05
	Cd, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.973905-05
	Cr, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.945412-05
	Hg, Total	S 7471A	N/A	Normal	2004-05-13 09:56:54.9568-05
	Pb, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.959608-05
	Se, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:54.968069-05
	Semivolatiles	S 8270C	S 3550	Normal	2004-05-13 09:56:54.971135-05
	TPH GRO	S 8015B	S 5035	Normal	2004-05-13 09:56:54.953937-05
	Volatiles	S 8260B	S 5030B	Normal	2004-05-13 09:56:54.951169-05
33842	Ag, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.088798-05
	As, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.091595-05
	Ba, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.074632-05
	Cd, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.0999-05
	Cr, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.071718-05
	Hg, Total	S 7471A	N/A	Normal	2004-05-13 09:56:55.08316-05
	Pb, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.086004-05
	Se, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.09438-05
	Semivolatiles	S 8270C	S 3550	Normal	2004-05-13 09:56:55.097154-05
	TPH GRO	S 8015B	S 5035	Normal	2004-05-13 09:56:55.080266-05
	Volatiles	S 8260B	S 5030B	Normal	2004-05-13 09:56:55.07748-05
33843	Ag, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.215952-05
	As, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.218737-05
	Ba, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.201715-05

Work Order Receipt

Sample	Test	Method	Prep	Priority	Due Date
	Cd, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.227058-05
	Cr, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.198902-05
	Hg, Total	S 7471A	N/A	Normal	2004-05-13 09:56:55.210305-05
	Pb, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.213144-05
	Se, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.221528-05
	Semivolatiles	S 8270C	S 3550	Normal	2004-05-13 09:56:55.224308-05
	TPH GRO	S 8015B	S 5035	Normal	2004-05-13 09:56:55.207402-05
	Volatiles	S 8260B	S 5030B	Normal	2004-05-13 09:56:55.204626-05
33844	Ag, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.342202-05
	As, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.344964-05
	Ba, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.327771-05
	Cd, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.353344-05
	Cr, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.324857-05
	Hg, Total	S 7471A	N/A	Normal	2004-05-13 09:56:55.336246-05
	Pb, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.339128-05
	Se, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.347768-05
	Semivolatiles	S 8270C	S 3550	Normal	2004-05-13 09:56:55.350568-05
	TPH GRO	S 8015B	S 5035	Normal	2004-05-13 09:56:55.333396-05
	Volatiles	S 8260B	S 5030B	Normal	2004-05-13 09:56:55.330605-05
33845	Ag, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.468109-05
	As, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.47086-05
	Ba, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.454028-05
	Cd, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.479247-05
	Cr, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.451116-05
	Hg, Total	S 7471A	N/A	Normal	2004-05-13 09:56:55.462467-05
	Pb, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.465308-05
	Se, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.473665-05
	Semivolatiles	S 8270C	S 3550	Normal	2004-05-13 09:56:55.476456-05
	TPH GRO	S 8015B	S 5035	Normal	2004-05-13 09:56:55.459625-05
	Volatiles	S 8260B	S 5030B	Normal	2004-05-13 09:56:55.456884-05
33846	Ag, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.594341-05
	As, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.597109-05
	Ba, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.580203-05
	Cd, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.605945-05
	Cr, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.577285-05
	Hg, Total	S 7471A	N/A	Normal	2004-05-13 09:56:55.588697-05
	Pb, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.591549-05
	Se, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.600293-05
	Semivolatiles	S 8270C	S 3550	Normal	2004-05-13 09:56:55.603083-05
	TPH GRO	S 8015B	S 5035	Normal	2004-05-13 09:56:55.585814-05
	Volatiles	S 8260B	S 5030B	Normal	2004-05-13 09:56:55.583039-05
33847	Ag, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.720926-05
	As, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.724575-05
	Ba, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.706771-05
	Cd, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.732894-05
	Cr, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.703851-05
	Hg, Total	S 7471A	N/A	Normal	2004-05-13 09:56:55.715271-05
	Pb, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.718126-05
	Se, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.727379-05
	Semivolatiles	S 8270C	S 3550	Normal	2004-05-13 09:56:55.73015-05
	TPH GRO	S 8015B	S 5035	Normal	2004-05-13 09:56:55.712387-05
	Volatiles	S 8260B	S 5030B	Normal	2004-05-13 09:56:55.709608-05
33848	Ag, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.848331-05
	As, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.851144-05
	Ba, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.833764-05
	Cd, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.859489-05
	Cr, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.830853-05

Work Order Receipt

Sample	Test	Method	Prep	Priority	Due Date
	Hg, Total	S 7471A	N/A	Normal	2004-05-13 09:56:55.842669-05
	Pb, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.84552-05
	Se, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.853917-05
	Semivolatiles	S 8270C	S 3550	Normal	2004-05-13 09:56:55.856699-05
	TPH GRO	S 8015B	S 5035	Normal	2004-05-13 09:56:55.839742-05
	Volatiles	S 8260B	S 5030B	Normal	2004-05-13 09:56:55.836594-05
33849	Ag, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.974627-05
	As, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.977453-05
	Ba, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.960247-05
	Cd, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.985765-05
	Cr, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.957335-05
	Hg, Total	S 7471A	N/A	Normal	2004-05-13 09:56:55.968994-05
	Pb, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.971824-05
	Se, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:55.980235-05
	Semivolatiles	S 8270C	S 3550	Normal	2004-05-13 09:56:55.982973-05
	TPH GRO	S 8015B	S 5035	Normal	2004-05-13 09:56:55.965843-05
	Volatiles	S 8260B	S 5030B	Normal	2004-05-13 09:56:55.963072-05
33850	Ag, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:56.100898-05
	As, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:56.103671-05
	Ba, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:56.086489-05
	Cd, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:56.112022-05
	Cr, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:56.083584-05
	Hg, Total	S 7471A	N/A	Normal	2004-05-13 09:56:56.095243-05
	Pb, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:56.098101-05
	Se, Total	S 6010B	S 3050B	Normal	2004-05-13 09:56:56.10646-05
	Semivolatiles	S 8270C	S 3550	Normal	2004-05-13 09:56:56.109238-05
	TPH GRO	S 8015B	S 5035	Normal	2004-05-13 09:56:56.09238-05
	Volatiles	S 8260B	S 5030B	Normal	2004-05-13 09:56:56.08933-05
33851	Ag, Total	S 6010B	S 3050B	Normal	2004-05-13 10:00:23.037152-05
	As, Total	S 6010B	S 3050B	Normal	2004-05-13 10:00:23.040182-05
	Ba, Total	S 6010B	S 3050B	Normal	2004-05-13 10:00:23.021319-05
	Cd, Total	S 6010B	S 3050B	Normal	2004-05-13 10:00:23.049294-05
	Cr, Total	S 6010B	S 3050B	Normal	2004-05-13 10:00:23.007495-05
	Hg, Total	S 7471A	N/A	Normal	2004-05-13 10:00:23.030927-05
	Pb, Total	S 6010B	S 3050B	Normal	2004-05-13 10:00:23.03403-05
	Se, Total	S 6010B	S 3050B	Normal	2004-05-13 10:00:23.04321-05
	Semivolatiles	S 8270C	S 3550	Normal	2004-05-13 10:00:23.046262-05
	TPH GRO	S 8015B	S 5035	Normal	2004-05-13 10:00:23.027752-05
	Volatiles	S 8260B	S 5030B	Normal	2004-05-13 10:00:23.024467-05
33852	Volatiles	S 8260B	S 5030B	Normal	2004-05-13
33853	Ag, Total	S 6010B	S 3010A	Normal	2004-05-13 10:12:12.519847-05
	As, Total	S 6010B	S 3010A	Normal	2004-05-13 10:12:12.5365-05
	Ba, Total	S 6010B	S 3010A	Normal	2004-05-13 10:12:12.548716-05
	Cd, Total	S 6010B	S 3010A	Normal	2004-05-13 10:12:12.545706-05
	Cr, Total	S 6010B	S 3010A	Normal	2004-05-13 10:12:12.53337-05
	Hg, Total	S 7470A	N/A	Normal	2004-05-13 10:12:12.557784-05
	Pb, Total	S 6010B	S 3010A	Normal	2004-05-13 10:12:12.560838-05
	Se, Total	S 6010B	S 3010A	Normal	2004-05-13 10:12:12.539503-05
	Semivolatiles	S 8270C	S 3510C	Normal	2004-05-13 10:12:12.542561-05
	TPH GRO	S 8015B	S 5030B	Normal	2004-05-13 10:12:12.554667-05
	Volatiles	S 8260B	S 5030B	Normal	2004-05-13 10:12:12.551703-05

Analytical and Quality Control Report

Rene Rodriguez
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: May 28, 2004

Work Order: 4051107

Project Name: HELSTE TSA Fuel Spill Investigation
Project Number: 2080.414

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
33541	HLSF-0154-SB-010-(6.5-7)	soil	2004-05-10	08:30	2004-05-11
33542	HLSF-0154-SB-010-(11.5-12)	soil	2004-05-10	08:45	2004-05-11
33543	HLSF-0154-SB-010-(16.5-17)	soil	2004-05-10	08:55	2004-05-11
33544	HLSF-0154-SB-010-(21.5-22)	soil	2004-05-10	09:00	2004-05-11
33545	HLSF-0154-SB-010-(31.5-32)	soil	2004-05-10	09:32	2004-05-11
33546	HLSF-0154-SB-010-(26.5-27)	soil	2004-05-10	09:15	2004-05-11
33547	HLSF-0154-SB-110-(26.5-27)	soil	2004-05-10	09:15	2004-05-11
33548	HLSF-0154-SB-010-(36.5-37)	soil	2004-05-10	09:40	2004-05-11
33549	HLSF-0154-SB-010-(41.5-42)	soil	2004-05-10	09:50	2004-05-11
33550	HLSF-0154-SB-011-(6.5-7.0)	soil	2004-05-10	10:40	2004-05-11
33551	HLSF-0154-SB-011-(11.5-12.0)	soil	2004-05-10	10:45	2004-05-11
33552	HLSF-0154-SB-011-(16.5-17.0)	soil	2004-05-10	11:00	2004-05-11
33553	HLSF-0154-SB-011-(21.5-22)	soil	2004-05-10	11:10	2004-05-11
33554	HLSF-0154-SB-111-(21.5-22)	soil	2004-05-10	11:10	2004-05-11
33555	HLSF-0154-SB-011-(26.5-27)	soil	2004-05-10	11:20	2004-05-11
33556	HLSF-0154-SB-011-(31.5-32)	soil	2004-05-10	11:35	2004-05-11
33557	HLSF-0154-SB-011-(36.5-37)	soil	2004-05-10	11:45	2004-05-11
33558	HLSF-0154-SB-011-(41.5-42)	soil	2004-05-10	11:56	2004-05-11
33559	HLSF-0154-SB-012-(6.5-7.0)	soil	2004-05-10	13:30	2004-05-11
33560	HLSF-0154-SB-012-(11.5-12.0)	soil	2004-05-10	13:40	2004-05-11
33561	HLSF-0154-SB-012-(16.5-17.0)	soil	2004-05-10	14:00	2004-05-11
33562	HLSF-0154-SB-012-(20.5-21.0)	soil	2004-05-10	14:20	2004-05-11
33563	HLSF-0154-SB-112-(20.5-21.0)	soil	2004-05-10	14:20	2004-05-11
33564	HLSF-0154-SB-012-(26.5-27.0)	soil	2004-05-10	14:30	2004-05-11
33565	HLSF-0154-SB-012-(31.5-32)	soil	2004-05-10	14:45	2004-05-11
33566	HLSF-0154-SB-012-(36.5-37)	soil	2004-05-10	14:55	2004-05-11
33567	HLSF-0154-SB-012-(41.5-42.0)	soil	2004-05-10	15:00	2004-05-11
33624	HLSF-0154-SB-013-(6.5-7.0)	soil	2004-05-11	07:00	2004-05-12
33625	HLSF-0154-SB-013-(11.5-12.0)	soil	2004-05-11	07:10	2004-05-12
33626	HLSF-0154-SB-013-(16.5-17.0)	soil	2004-05-11	07:20	2004-05-12
33627	HLSF-0154-SB-013-(20-20.5)	soil	2004-05-11	07:35	2004-05-12
33628	HLSF-0154-SB-013-(26.5-27.0)	soil	2004-05-11	07:45	2004-05-12
33629	HLSF-0154-SB-013-(30.5-31.0)	soil	2004-05-11	07:55	2004-05-12
33630	HLSF-0154-SB-113-(30.5-31)	soil	2004-05-11	07:55	2004-05-12

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
33631	HLSF-0154-SB-013-(35-35.5)	soil	2004-05-11	08:10	2004-05-12
33632	HLSF-0154-SB-013-(41.5-42.0)	soil	2004-05-11	08:20	2004-05-12
33633	HLSF-0154-SB-014-(6.5-7.0)	soil	2004-05-11	09:15	2004-05-12
33634	HLSF-0154-SB-014-(11.5-12)	soil	2004-05-11	09:30	2004-05-12
33635	HLSF-0154-SB-014-(16.5-17.0)	soil	2004-05-11	09:40	2004-05-12
33636	HLSF-0154-SB-014-(21.5-22.0)	soil	2004-05-11	09:45	2004-05-12
33637	HLSF-0154-SB-014-(30-30.5)	soil	2004-05-11	10:05	2004-05-12
33638	HLSF-0154-SB-114-(30-30.5)	soil	2004-05-11	10:05	2004-05-12
33639	HLSF-0154-SB-014-(36.5-37)	soil	2004-05-11	10:15	2004-05-12
33640	HLSF-0154-SB-014-(41.5-42)	soil	2004-05-11	10:25	2004-05-12
33641	HLSF-0154-SB-015-(6.5-7.0)	soil	2004-05-11	11:25	2004-05-12
33642	HLSF-0154-SB-015-(11.5-12.0)	soil	2004-05-11	11:35	2004-05-12
33643	HLSF-0154-SB-015-(16.5-17.0)	soil	2004-05-11	12:10	2004-05-12
33644	HLSF-0154-SB-015-(21.5-22)	soil	2004-05-11	12:20	2004-05-12
33645	HLSF-0154-SB-115-(21.5-22)	soil	2004-05-11	12:20	2004-05-12
33646	HLSF-0154-SB-015-(26.5-27)	soil	2004-05-11	12:30	2004-05-12
33647	HLSF-0154-SB-015-(31.5-32)	soil	2004-05-11	12:40	2004-05-12
33648	HLSF-0154-SB-015-(36.5-37)	soil	2004-05-11	12:50	2004-05-12
33649	HLSF-0154-SB-015-(41.5-42)	soil	2004-05-11	13:00	2004-05-12
33650	HLSF-0154-SB-016-(6.5-7.0)	soil	2004-05-11	14:05	2004-05-12
33651	HLSF-0154-SB-016-(11.5-12.0)	soil	2004-05-11	14:15	2004-05-12
33652	HLSF-0154-SB-016-(16.5-17.0)	soil	2004-05-11	14:20	2004-05-12
33653	HLSF-0154-SB-016-(20.5-21.0)	soil	2004-05-11	14:40	2004-05-12
33654	HLSF-0154-SB-116-(20.5-21.0)	soil	2004-05-11	14:40	2004-05-12
33655	HLSF-0154-SB-016-(26.5-27)	soil	2004-05-11	14:45	2004-05-12
33656	HLSF-0154-SB-016-(30.5-31.0)	soil	2004-05-11	14:55	2004-05-12
33657	HLSF-0154-SB-016-(35.5-36)	soil	2004-05-11	15:10	2004-05-12
33658	HLSF-0154-SB-016-(41.5-42.0)	soil	2004-05-11	15:20	2004-05-12
33659	HLSF-0154-SB-014-(26.5-27)	soil	2004-05-11	09:58	2004-05-12
33836	HLSF-0154-SB-017-(6.5-7.0)	soil	2004-05-12	07:00	2004-05-13
33837	HLSF-0154-SB-017-(11.5-12.0)	soil	2004-05-12	07:10	2004-05-13
33838	HLSF-0154-SB-017-(16.5-17.0)	soil	2004-05-12	07:20	2004-05-13
33839	HLSF-0154-SB-017-(21.0-21.5)	soil	2004-05-12	07:40	2004-05-13
33840	HLSF-0154-SB-017-(26.5-27)	soil	2004-05-12	07:50	2004-05-13
33841	HLSF-0154-SB-017-(31.5-32)	soil	2004-05-12	08:00	2004-05-13
33842	HLSF-0154-SB-017-(36.5-37)	soil	2004-05-12	08:15	2004-05-13
33843	HLSF-0154-SB-017-(41.5-42)	soil	2004-05-12	08:30	2004-05-13
33844	HLSF-0154-SB-018-(6.5-7.0)	soil	2004-05-12	09:20	2004-05-13
33845	HLSF-0154-SB-018-(11.5-12.0)	soil	2004-05-12	09:45	2004-05-13
33846	HLSF-0154-SB-018-(16.5-17)	soil	2004-05-12	09:50	2004-05-13
33847	HLSF-0154-SB-018-(20.5-21.0)	soil	2004-05-12	10:15	2004-05-13
33848	HLSF-0154-SB-018-(26.5-27)	soil	2004-05-12	10:25	2004-05-13
33849	HLSF-0154-SB-018-(30.5-31)	soil	2004-05-12	10:35	2004-05-13
33850	HLSF-0154-SB-018-(36.5-37)	soil	2004-05-12	10:50	2004-05-13
33851	HLSF-0154-SB-018-(41.5-42)	soil	2004-05-12	11:00	2004-05-13

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 150 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 33541 - HLSF-0154-SB-010-(6.5-7)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9549	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8473	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00

continued . . .

sample 33541 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.5	µg/Kg	1	50.0	95	70 - 130
Toluene-d8		48.7	µg/Kg	1	50.0	97	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.2	µg/Kg	1	50.0	92	70 - 130

Sample: 33542 - HLSF-0154-SB-010-(11.5-12)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9549	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8473	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00

continued...

sample 33542 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00

continued...

sample 33542 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.2	µg/Kg	1	50.0	94	70 - 130
Toluene-d8		49.4	µg/Kg	1	50.0	99	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.4	µg/Kg	1	50.0	93	70 - 130

Sample: 33543 - HLSF-0154-SB-010-(16.5-17)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9549	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8473	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00

continued...

sample 33543 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		46.8	µg/Kg	1	50.0	94	70 - 130
Toluene-d8		49.2	µg/Kg	1	50.0	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		45.7	µg/Kg	1	50.0	91	70 - 130

Sample: 33544 - HLSF-0154-SB-010-(21.5-22)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9549	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8473	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		57.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00

continued . . .

sample 33544 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
o-Xylene		24.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.0	µg/Kg	1	50.0	94	70 - 130
Toluene-d8		49.3	µg/Kg	1	50.0	99	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.1	µg/Kg	1	50.0	92	70 - 130

Sample: 33545 - HLSF-0154-SB-010-(31.5-32)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9549	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8473	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00

continued...

sample 33545 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00

continued . . .

sample 33545 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.5	µg/Kg	1	50.0	95	70 - 130
Toluene-d8		49.3	µg/Kg	1	50.0	99	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.1	µg/Kg	1	50.0	92	70 - 130

Sample: 33546 - HLSF-0154-SB-010-(26.5-27)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9549	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8473	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		116	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00

continued . . .

sample 33546 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		324	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		45.8	µg/Kg	10	1.00
m,p-Xylene		94.6	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		36.1	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		19.7	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.1	µg/Kg	1	50.0	94	70 - 130
Toluene-d8		49.5	µg/Kg	1	50.0	99	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.6	µg/Kg	1	50.0	93	70 - 130

Sample: 33547 - HLSF-0154-SB-110-(26.5-27)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9549	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8473	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		112	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		323	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		47.2	µg/Kg	10	1.00
m,p-Xylene		97.7	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		34.9	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00

continued . . .

sample 33547 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		20.7	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.6	µg/Kg	1	50.0	95	70 - 130
Toluene-d8		49.7	µg/Kg	1	50.0	99	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.6	µg/Kg	1	50.0	93	70 - 130

Sample: 33548 - HLSF-0154-SB-010-(36.5-37)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9549	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8473	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00

continued . . .

sample 33548 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00

continued . . .

sample 33548 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.2	µg/Kg	1	50.0	94	70 - 130
Toluene-d8		49.3	µg/Kg	1	50.0	99	70 - 130
4-Bromo?uorobenzene (4-BFB)		45.7	µg/Kg	1	50.0	91	70 - 130

Sample: 33549 - HLSF-0154-SB-010-(41.5-42)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9549	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8473	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00

continued . . .

sample 33549 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.1	µg/Kg	1	50.0	94	70 - 130
Toluene-d8		49.0	µg/Kg	1	50.0	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		45.7	µg/Kg	1	50.0	91	70 - 130

Sample: 33550 - HLSF-0154-SB-011-(6.5-7.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9549	Date Analyzed:	2004-05-11	Analyzed By:	JG

Prep Batch: 8473 Date Prepared: 2004-05-11 Prepared By: JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00

continued . . .

sample 33550 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.5	µg/Kg	1	50.0	95	70 - 130
Toluene-d8		49.3	µg/Kg	1	50.0	99	70 - 130
4-Bromo?uorobenzene (4-BFB)		45.7	µg/Kg	1	50.0	91	70 - 130

Sample: 33551 - HLSF-0154-SB-011-(11.5-12.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9549	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8473	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00

continued . . .

sample 33551 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00

continued . . .

sample 33551 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.2	µg/Kg	1	50.0	94	70 - 130
Toluene-d8		48.9	µg/Kg	1	50.0	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		45.5	µg/Kg	1	50.0	91	70 - 130

Sample: 33552 - HLSF-0154-SB-011-(16.5-17.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9549	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8473	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00

continued . . .

sample 33552 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.2	µg/Kg	1	50.0	94	70 - 130
Toluene-d8		48.6	µg/Kg	1	50.0	97	70 - 130
4-Bromo?uorobenzene (4-BFB)		45.6	µg/Kg	1	50.0	91	70 - 130

Sample: 33553 - HLSF-0154-SB-011-(21.5-22)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9549	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8473	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		169	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		1300	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		266	µg/Kg	10	1.00
m,p-Xylene		679	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		430	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00

continued . . .

sample 33553 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		24.6	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		52.9	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		241	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		51.8	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.1	µg/Kg	1	50.0	94	70 - 130
Toluene-d8		48.9	µg/Kg	1	50.0	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.6	µg/Kg	1	50.0	93	70 - 130

Sample: 33554 - HLSF-0154-SB-111-(21.5-22)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9549	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8473	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00

continued . . .

sample 33554 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		132	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		1070	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		217	µg/Kg	10	1.00
m,p-Xylene		573	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		370	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		20.6	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		46.9	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		214	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		78.4	µg/Kg	10	5.00

continued...

sample 33554 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.4	µg/Kg	1	50.0	95	70 - 130
Toluene-d8		49.0	µg/Kg	1	50.0	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.4	µg/Kg	1	50.0	93	70 - 130

Sample: 33555 - HLSF-0154-SB-011-(26.5-27)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9549	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8473	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		22.2	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		256	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00

continued . . .

sample 33555 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		437	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		40.0	µg/Kg	10	1.00
m,p-Xylene		69.1	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		34.9	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.6	µg/Kg	1	50.0	95	70 - 130
Toluene-d8		49.1	µg/Kg	1	50.0	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.5	µg/Kg	1	50.0	93	70 - 130

Sample: 33556 - HLSF-0154-SB-011-(31.5-32)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9549	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8473	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		17.9	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		62.6	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		10.5	µg/Kg	10	1.00
m,p-Xylene		23.1	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		11.6	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00

continued . . .

sample 33556 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.7	µg/Kg	1	50.0	95	70 - 130
Toluene-d8		49.2	µg/Kg	1	50.0	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		47.0	µg/Kg	1	50.0	94	70 - 130

Sample: 33557 - HLSF-0154-SB-011-(36.5-37)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9549	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8473	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00

continued . . .

sample 33557 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		10.5	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00

continued . . .

sample 33557 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		46.8	µg/Kg	1	50.0	94	70 - 130
Toluene-d8		48.6	µg/Kg	1	50.0	97	70 - 130
4-Bromo?uorobenzene (4-BFB)		45.8	µg/Kg	1	50.0	92	70 - 130

Sample: 33558 - HLSF-0154-SB-011-(41.5-42)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9549	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8473	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00

continued . . .

sample 33558 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.6	µg/Kg	1	50.0	95	70 - 130
Toluene-d8		49.2	µg/Kg	1	50.0	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.6	µg/Kg	1	50.0	93	70 - 130

Sample: 33559 - HLSF-0154-SB-012-(6.5-7.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9549	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8473	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00

continued . . .

sample 33559 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.3	µg/Kg	1	50.0	95	70 - 130
Toluene-d8		48.6	µg/Kg	1	50.0	97	70 - 130
4-Bromo?uorobenzene (4-BFB)		45.9	µg/Kg	1	50.0	92	70 - 130

Sample: 33560 - HLSF-0154-SB-012-(11.5-12.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9549	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8473	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00

continued...

sample 33560 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00

continued . . .

sample 33560 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.1	µg/Kg	1	50.0	94	70 - 130
Toluene-d8		48.8	µg/Kg	1	50.0	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.1	µg/Kg	1	50.0	92	70 - 130

Sample: 33561 - HLSF-0154-SB-012-(16.5-17.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9588	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8503	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00

continued . . .

sample 33561 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.3	µg/Kg	1	50.0	95	70 - 130
Toluene-d8		49.1	µg/Kg	1	50.0	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		45.9	µg/Kg	1	50.0	92	70 - 130

Sample: 33562 - HLSF-0154-SB-012-(20.5-21.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9588	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8503	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		21.4	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		124	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		200	µg/Kg	10	1.00
m,p-Xylene		633	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		394	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00

continued . . .

sample 33562 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		19.7	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		47.2	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		221	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		75.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		46.9	µg/Kg	1	50.0	94	70 - 130
Toluene-d8		48.4	µg/Kg	1	50.0	97	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.2	µg/Kg	1	50.0	92	70 - 130

Sample: 33563 - HLSF-0154-SB-112-(20.5-21.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9588	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8503	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00

continued . . .

sample 33563 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		14.7	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		100	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		111	µg/Kg	10	1.00
m,p-Xylene		484	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		315	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		13.4	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		34.5	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		175	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		118	µg/Kg	10	5.00

continued . . .

sample 33563 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.0	µg/Kg	1	50.0	94	70 - 130
Toluene-d8		48.8	µg/Kg	1	50.0	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.6	µg/Kg	1	50.0	93	70 - 130

Sample: 33564 - HLSF-0154-SB-012-(26.5-27.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9588	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8503	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		25.8	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00

continued . . .

sample 33564 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		64.3	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		10.2	µg/Kg	10	1.00
m,p-Xylene		27.8	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		15.5	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.1	µg/Kg	1	50.0	94	70 - 130
Toluene-d8		48.7	µg/Kg	1	50.0	97	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.1	µg/Kg	1	50.0	92	70 - 130

Sample: 33565 - HLSF-0154-SB-012-(31.5-32)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9588	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8503	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		57.4	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		96.1	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		26.0	µg/Kg	10	1.00
m,p-Xylene		123	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		57.7	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00

continued . . .

sample 33565 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		23.4	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.3	µg/Kg	1	50.0	95	70 - 130
Toluene-d8		49.0	µg/Kg	1	50.0	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.9	µg/Kg	1	50.0	94	70 - 130

Sample: 33566 - HLSF-0154-SB-012-(36.5-37)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9588	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8503	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00

continued . . .

sample 33566 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00

continued . . .

sample 33566 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.5	µg/Kg	1	50.0	95	70 - 130
Toluene-d8		49.0	µg/Kg	1	50.0	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.5	µg/Kg	1	50.0	93	70 - 130

Sample: 33567 - HLSF-0154-SB-012-(41.5-42.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9588	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8503	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00

continued...

sample 33567 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.8	µg/Kg	1	50.0	96	70 - 130
Toluene-d8		49.0	µg/Kg	1	50.0	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.8	µg/Kg	1	50.0	94	70 - 130

Sample: 33624 - HLSF-0154-SB-013-(6.5-7.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9783	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8685	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00

continued . . .

sample 33624 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		49.0	µg/Kg	1	50.0	98	70 - 130
Toluene-d8		49.5	µg/Kg	1	50.0	99	70 - 130
4-Bromo?uorobenzene (4-BFB)		45.1	µg/Kg	1	50.0	90	70 - 130

Sample: 33625 - HLSF-0154-SB-013-(11.5-12.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9783	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8685	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00

continued . . .

sample 33625 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00

continued . . .

sample 33625 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		48.5	µg/Kg	1	50.0	97	70 - 130
Toluene-d8		49.3	µg/Kg	1	50.0	99	70 - 130
4-Bromo?uorobenzene (4-BFB)		44.8	µg/Kg	1	50.0	90	70 - 130

Sample: 33626 - HLSF-0154-SB-013-(16.5-17.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9783	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8685	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00

continued . . .

sample 33626 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		48.3	µg/Kg	1	50.0	97	70 - 130
Toluene-d8		48.5	µg/Kg	1	50.0	97	70 - 130
4-Bromo?uorobenzene (4-BFB)		44.0	µg/Kg	1	50.0	88	70 - 130

Sample: 33627 - HLSF-0154-SB-013-(20-20.5)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9783	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8685	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		670	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		207	µg/Kg	10	1.00
m,p-Xylene		456	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		278	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00

continued . . .

sample 33627 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		13.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		34.2	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		142	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		48.7	µg/Kg	1	50.0	97	70 - 130
Toluene-d8		49.2	µg/Kg	1	50.0	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.0	µg/Kg	1	50.0	92	70 - 130

Sample: 33628 - HLSF-0154-SB-013-(26.5-27.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9783	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8685	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00

continued . . .

sample 33628 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		27.6	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		57.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		13.4	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00

continued . . .

sample 33628 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		49.1	µg/Kg	1	50.0	98	70 - 130
Toluene-d8		49.6	µg/Kg	1	50.0	99	70 - 130
4-Bromo?uorobenzene (4-BFB)		45.4	µg/Kg	1	50.0	91	70 - 130

Sample: 33629 - HLSF-0154-SB-013-(30.5-31.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9942	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8811	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10000	µg/Kg	10000	1.00
Dichlorodi?uoromethane		<10000	µg/Kg	10000	1.00
Chloromethane (methyl chloride)		<10000	µg/Kg	10000	1.00
Vinyl Chloride		<10000	µg/Kg	10000	1.00
Bromomethane (methyl bromide)		<50000	µg/Kg	10000	5.00
Chloroethane		<10000	µg/Kg	10000	1.00
Trichloro?uoromethane		<10000	µg/Kg	10000	1.00
Acetone		<100000	µg/Kg	10000	10.0
Iodomethane (methyl iodide)		<50000	µg/Kg	10000	5.00
Carbon Disul?de		<10000	µg/Kg	10000	1.00
Acrylonitrile		<10000	µg/Kg	10000	1.00
2-Butanone (MEK)		<50000	µg/Kg	10000	5.00
4-Methyl-2-pentanone (MIBK)		<50000	µg/Kg	10000	5.00
2-Hexanone		<50000	µg/Kg	10000	5.00
trans 1,4-Dichloro-2-butene		<100000	µg/Kg	10000	10.0
1,1-Dichloroethene		<10000	µg/Kg	10000	1.00
Methylene chloride		<50000	µg/Kg	10000	5.00
MTBE		<10000	µg/Kg	10000	1.00
trans-1,2-Dichloroethene		<10000	µg/Kg	10000	1.00
1,1-Dichloroethane		<10000	µg/Kg	10000	1.00
cis-1,2-Dichloroethene		<10000	µg/Kg	10000	1.00
2,2-Dichloropropane		<10000	µg/Kg	10000	1.00
1,2-Dichloroethane (EDC)		<10000	µg/Kg	10000	1.00
Chloroform		<10000	µg/Kg	10000	1.00
1,1,1-Trichloroethane		<10000	µg/Kg	10000	1.00
1,1-Dichloropropene		<10000	µg/Kg	10000	1.00
Benzene		68100	µg/Kg	10000	1.00
Carbon Tetrachloride		<10000	µg/Kg	10000	1.00
1,2-Dichloropropane		<10000	µg/Kg	10000	1.00
Trichloroethene (TCE)		<10000	µg/Kg	10000	1.00
Dibromomethane (methylene bromide)		<10000	µg/Kg	10000	1.00
Bromodichloromethane		<10000	µg/Kg	10000	1.00
2-Chloroethyl vinyl ether		<50000	µg/Kg	10000	5.00

continued...

sample 33629 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
cis-1,3-Dichloropropene		<10000	µg/Kg	10000	1.00
trans-1,3-Dichloropropene		<10000	µg/Kg	10000	1.00
Toluene		542000	µg/Kg	10000	1.00
1,1,2-Trichloroethane		<10000	µg/Kg	10000	1.00
1,3-Dichloropropane		<10000	µg/Kg	10000	1.00
Dibromochloromethane		<10000	µg/Kg	10000	1.00
1,2-Dibromoethane (EDB)		<10000	µg/Kg	10000	1.00
Tetrachloroethene (PCE)		<10000	µg/Kg	10000	1.00
Chlorobenzene		<10000	µg/Kg	10000	1.00
1,1,1,2-Tetrachloroethane		<10000	µg/Kg	10000	1.00
Ethylbenzene		176000	µg/Kg	10000	1.00
m,p-Xylene		365000	µg/Kg	10000	1.00
Bromoform		<10000	µg/Kg	10000	1.00
Styrene		<10000	µg/Kg	10000	1.00
o-Xylene		146000	µg/Kg	10000	1.00
1,1,2,2-Tetrachloroethane		<10000	µg/Kg	10000	1.00
2-Chlorotoluene		<10000	µg/Kg	10000	1.00
1,2,3-Trichloropropane		<10000	µg/Kg	10000	1.00
Isopropylbenzene		16700	µg/Kg	10000	1.00
Bromobenzene		<10000	µg/Kg	10000	1.00
n-Propylbenzene		43500	µg/Kg	10000	1.00
1,3,5-Trimethylbenzene		46600	µg/Kg	10000	1.00
tert-Butylbenzene		<10000	µg/Kg	10000	1.00
1,2,4-Trimethylbenzene		177000	µg/Kg	10000	1.00
1,4-Dichlorobenzene (para)		<10000	µg/Kg	10000	1.00
sec-Butylbenzene		<10000	µg/Kg	10000	1.00
1,3-Dichlorobenzene (meta)		<10000	µg/Kg	10000	1.00
p-Isopropyltoluene		<10000	µg/Kg	10000	1.00
4-Chlorotoluene		<10000	µg/Kg	10000	1.00
1,2-Dichlorobenzene (ortho)		<10000	µg/Kg	10000	1.00
n-Butylbenzene		<10000	µg/Kg	10000	1.00
1,2-Dibromo-3-chloropropane		<50000	µg/Kg	10000	5.00
1,2,3-Trichlorobenzene		<50000	µg/Kg	10000	5.00
1,2,4-Trichlorobenzene		<50000	µg/Kg	10000	5.00
Naphthalene		<50000	µg/Kg	10000	5.00
Hexachlorobutadiene		<50000	µg/Kg	10000	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		52.7	µg/Kg	1	50.0	105	70 - 130
Toluene-d8		43.9	µg/Kg	1	50.0	88	70 - 130
4-Bromo?uorobenzene (4-BFB)		48.3	µg/Kg	1	50.0	97	70 - 130

Sample: 33630 - HLSF-0154-SB-113-(30.5-31)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9942	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8811	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10000	µg/Kg	10000	1.00
Dichlorodi?uoromethane		<10000	µg/Kg	10000	1.00
Chloromethane (methyl chloride)		<10000	µg/Kg	10000	1.00
Vinyl Chloride		<10000	µg/Kg	10000	1.00
Bromomethane (methyl bromide)		<50000	µg/Kg	10000	5.00
Chloroethane		<10000	µg/Kg	10000	1.00
Trichloro?uoromethane		<10000	µg/Kg	10000	1.00
Acetone		<100000	µg/Kg	10000	10.0
Iodomethane (methyl iodide)		<50000	µg/Kg	10000	5.00
Carbon Disul?de		<10000	µg/Kg	10000	1.00
Acrylonitrile		<10000	µg/Kg	10000	1.00
2-Butanone (MEK)		<50000	µg/Kg	10000	5.00
4-Methyl-2-pentanone (MIBK)		<50000	µg/Kg	10000	5.00
2-Hexanone		<50000	µg/Kg	10000	5.00
trans 1,4-Dichloro-2-butene		<100000	µg/Kg	10000	10.0
1,1-Dichloroethene		<10000	µg/Kg	10000	1.00
Methylene chloride		<50000	µg/Kg	10000	5.00
MTBE		<10000	µg/Kg	10000	1.00
trans-1,2-Dichloroethene		<10000	µg/Kg	10000	1.00
1,1-Dichloroethane		<10000	µg/Kg	10000	1.00
cis-1,2-Dichloroethene		<10000	µg/Kg	10000	1.00
2,2-Dichloropropane		<10000	µg/Kg	10000	1.00
1,2-Dichloroethane (EDC)		<10000	µg/Kg	10000	1.00
Chloroform		<10000	µg/Kg	10000	1.00
1,1,1-Trichloroethane		<10000	µg/Kg	10000	1.00
1,1-Dichloropropene		<10000	µg/Kg	10000	1.00
Benzene		78300	µg/Kg	10000	1.00
Carbon Tetrachloride		<10000	µg/Kg	10000	1.00
1,2-Dichloropropane		<10000	µg/Kg	10000	1.00
Trichloroethene (TCE)		<10000	µg/Kg	10000	1.00
Dibromomethane (methylene bromide)		<10000	µg/Kg	10000	1.00
Bromodichloromethane		<10000	µg/Kg	10000	1.00
2-Chloroethyl vinyl ether		<50000	µg/Kg	10000	5.00
cis-1,3-Dichloropropene		<10000	µg/Kg	10000	1.00
trans-1,3-Dichloropropene		<10000	µg/Kg	10000	1.00
Toluene		616000	µg/Kg	10000	1.00
1,1,2-Trichloroethane		<10000	µg/Kg	10000	1.00
1,3-Dichloropropane		<10000	µg/Kg	10000	1.00
Dibromochloromethane		<10000	µg/Kg	10000	1.00
1,2-Dibromoethane (EDB)		<10000	µg/Kg	10000	1.00
Tetrachloroethene (PCE)		<10000	µg/Kg	10000	1.00
Chlorobenzene		<10000	µg/Kg	10000	1.00
1,1,1,2-Tetrachloroethane		<10000	µg/Kg	10000	1.00
Ethylbenzene		202000	µg/Kg	10000	1.00
m,p-Xylene		414000	µg/Kg	10000	1.00
Bromoform		<10000	µg/Kg	10000	1.00
Styrene		<10000	µg/Kg	10000	1.00
o-Xylene		165000	µg/Kg	10000	1.00
1,1,2,2-Tetrachloroethane		<10000	µg/Kg	10000	1.00
2-Chlorotoluene		<10000	µg/Kg	10000	1.00
1,2,3-Trichloropropane		<10000	µg/Kg	10000	1.00
Isopropylbenzene		19200	µg/Kg	10000	1.00

continued . . .

sample 33630 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Bromobenzene		<10000	µg/Kg	10000	1.00
n-Propylbenzene		50700	µg/Kg	10000	1.00
1,3,5-Trimethylbenzene		55000	µg/Kg	10000	1.00
tert-Butylbenzene		<10000	µg/Kg	10000	1.00
1,2,4-Trimethylbenzene		204000	µg/Kg	10000	1.00
1,4-Dichlorobenzene (para)		<10000	µg/Kg	10000	1.00
sec-Butylbenzene		<10000	µg/Kg	10000	1.00
1,3-Dichlorobenzene (meta)		<10000	µg/Kg	10000	1.00
p-Isopropyltoluene		<10000	µg/Kg	10000	1.00
4-Chlorotoluene		<10000	µg/Kg	10000	1.00
1,2-Dichlorobenzene (ortho)		<10000	µg/Kg	10000	1.00
n-Butylbenzene		10400	µg/Kg	10000	1.00
1,2-Dibromo-3-chloropropane		<50000	µg/Kg	10000	5.00
1,2,3-Trichlorobenzene		<50000	µg/Kg	10000	5.00
1,2,4-Trichlorobenzene		<50000	µg/Kg	10000	5.00
Naphthalene		<50000	µg/Kg	10000	5.00
Hexachlorobutadiene		<50000	µg/Kg	10000	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		53.7	µg/Kg	1	50.0	107	70 - 130
Toluene-d8		44.3	µg/Kg	1	50.0	89	70 - 130
4-Bromo?uorobenzene (4-BFB)		48.5	µg/Kg	1	50.0	97	70 - 130

Sample: 33631 - HLSF-0154-SB-013-(35-35.5)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9783	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8685	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00

continued . . .

sample 33631 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		30.8	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		10.4	µg/Kg	10	1.00
m,p-Xylene		23.6	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		11.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		53.8	µg/Kg	10	5.00

continued...

sample 33631 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		46.8	µg/Kg	1	50.0	94	70 - 130
Toluene-d8		48.3	µg/Kg	1	50.0	97	70 - 130
4-Bromo?uorobenzene (4-BFB)		47.2	µg/Kg	1	50.0	94	70 - 130

Sample: 33632 - HLSF-0154-SB-013-(41.5-42.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9783	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8685	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		12.7	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00

continued...

sample 33632 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		49.6	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		12.9	µg/Kg	10	1.00
m,p-Xylene		28.8	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		12.4	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		12.6	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		46.2	µg/Kg	1	50.0	92	70 - 130
Toluene-d8		48.5	µg/Kg	1	50.0	97	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.5	µg/Kg	1	50.0	93	70 - 130

Sample: 33633 - HLSF-0154-SB-014-(6.5-7.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9783	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8685	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00

continued . . .

sample 33633 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		46.7	µg/Kg	1	50.0	93	70 - 130
Toluene-d8		48.4	µg/Kg	1	50.0	97	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.6	µg/Kg	1	50.0	93	70 - 130

Sample: 33634 - HLSF-0154-SB-014-(11.5-12)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9783	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8685	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00

continued...

sample 33634 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00

continued . . .

sample 33634 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		46.8	µg/Kg	1	50.0	94	70 - 130
Toluene-d8		49.0	µg/Kg	1	50.0	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.1	µg/Kg	1	50.0	92	70 - 130

Sample: 33635 - HLSF-0154-SB-014-(16.5-17.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9783	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8685	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00

continued...

sample 33635 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.4	µg/Kg	1	50.0	95	70 - 130
Toluene-d8		48.4	µg/Kg	1	50.0	97	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.1	µg/Kg	1	50.0	92	70 - 130

Sample: 33636 - HLSF-0154-SB-014-(21.5-22.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9783	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8685	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00

continued . . .

sample 33636 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.2	µg/Kg	1	50.0	94	70 - 130
Toluene-d8		48.8	µg/Kg	1	50.0	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.0	µg/Kg	1	50.0	92	70 - 130

Sample: 33637 - HLSF-0154-SB-014-(30-30.5)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9783	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8685	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00

continued...

sample 33637 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		21.4	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		69.7	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		17.7	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00

continued . . .

sample 33637 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.0	µg/Kg	1	50.0	94	70 - 130
Toluene-d8		48.8	µg/Kg	1	50.0	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.3	µg/Kg	1	50.0	93	70 - 130

Sample: 33638 - HLSF-0154-SB-114-(30-30.5)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9783	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8685	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		24.1	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00

continued . . .

sample 33638 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		77.3	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		10.6	µg/Kg	10	1.00
m,p-Xylene		19.8	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.2	µg/Kg	1	50.0	94	70 - 130
Toluene-d8		48.7	µg/Kg	1	50.0	97	70 - 130
4-Bromo?uorobenzene (4-BFB)		45.9	µg/Kg	1	50.0	92	70 - 130

Sample: 33639 - HLSF-0154-SB-014-(36.5-37)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9783	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8685	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00

continued . . .

sample 33639 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.7	µg/Kg	1	50.0	95	70 - 130
Toluene-d8		48.6	µg/Kg	1	50.0	97	70 - 130
4-Bromo?uorobenzene (4-BFB)		45.9	µg/Kg	1	50.0	92	70 - 130

Sample: 33640 - HLSF-0154-SB-014-(41.5-42)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9784	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8686	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00

continued . . .

sample 33640 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00

continued...

sample 33640 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		48.0	µg/Kg	1	50.0	96	70 - 130
Toluene-d8		48.5	µg/Kg	1	50.0	97	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.3	µg/Kg	1	50.0	93	70 - 130

Sample: 33641 - HLSF-0154-SB-015-(6.5-7.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9784	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8686	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00

continued . . .

sample 33641 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.9	µg/Kg	1	50.0	96	70 - 130
Toluene-d8		49.1	µg/Kg	1	50.0	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		45.9	µg/Kg	1	50.0	92	70 - 130

Sample: 33642 - HLSF-0154-SB-015-(11.5-12.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9784	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8686	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00

continued . . .

sample 33642 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.9	µg/Kg	1	50.0	96	70 - 130
Toluene-d8		48.5	µg/Kg	1	50.0	97	70 - 130
4-Bromo?uorobenzene (4-BFB)		45.7	µg/Kg	1	50.0	91	70 - 130

Sample: 33643 - HLSF-0154-SB-015-(16.5-17.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9784	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8686	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00

continued . . .

sample 33643 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00

continued . . .

sample 33643 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.6	µg/Kg	1	50.0	95	70 - 130
Toluene-d8		48.0	µg/Kg	1	50.0	96	70 - 130
4-Bromo?uorobenzene (4-BFB)		44.7	µg/Kg	1	50.0	89	70 - 130

Sample: 33644 - HLSF-0154-SB-015-(21.5-22)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9784	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8686	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		185	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00

continued . . .

sample 33644 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		647	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		162	µg/Kg	10	1.00
m,p-Xylene		340	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		160	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		16.6	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		24.9	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		110	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.8	µg/Kg	1	50.0	96	70 - 130
Toluene-d8		48.9	µg/Kg	1	50.0	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.3	µg/Kg	1	50.0	93	70 - 130

Sample: 33645 - HLSF-0154-SB-115-(21.5-22)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9784	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8686	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		229	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		801	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		184	µg/Kg	10	1.00
m,p-Xylene		372	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		178	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00

continued . . .

sample 33645 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		17.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		23.6	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		110	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		46.7	µg/Kg	1	50.0	93	70 - 130
Toluene-d8		48.1	µg/Kg	1	50.0	96	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.7	µg/Kg	1	50.0	93	70 - 130

Sample: 33646 - HLSF-0154-SB-015-(26.5-27)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9784	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8686	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<200	µg/Kg	200	1.00
Dichlorodi?uoromethane		<200	µg/Kg	200	1.00
Chloromethane (methyl chloride)		<200	µg/Kg	200	1.00
Vinyl Chloride		<200	µg/Kg	200	1.00
Bromomethane (methyl bromide)		<1000	µg/Kg	200	5.00
Chloroethane		<200	µg/Kg	200	1.00
Trichloro?uoromethane		<200	µg/Kg	200	1.00
Acetone		<2000	µg/Kg	200	10.0
Iodomethane (methyl iodide)		<1000	µg/Kg	200	5.00
Carbon Disul?de		<200	µg/Kg	200	1.00
Acrylonitrile		<200	µg/Kg	200	1.00
2-Butanone (MEK)		<1000	µg/Kg	200	5.00
4-Methyl-2-pentanone (MIBK)		<1000	µg/Kg	200	5.00
2-Hexanone		<1000	µg/Kg	200	5.00
trans 1,4-Dichloro-2-butene		<2000	µg/Kg	200	10.0
1,1-Dichloroethene		<200	µg/Kg	200	1.00
Methylene chloride		<1000	µg/Kg	200	5.00

continued...

sample 33646 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<200	µg/Kg	200	1.00
trans-1,2-Dichloroethene		<200	µg/Kg	200	1.00
1,1-Dichloroethane		<200	µg/Kg	200	1.00
cis-1,2-Dichloroethene		<200	µg/Kg	200	1.00
2,2-Dichloropropane		<200	µg/Kg	200	1.00
1,2-Dichloroethane (EDC)		<200	µg/Kg	200	1.00
Chloroform		<200	µg/Kg	200	1.00
1,1,1-Trichloroethane		<200	µg/Kg	200	1.00
1,1-Dichloropropene		<200	µg/Kg	200	1.00
Benzene		2500	µg/Kg	200	1.00
Carbon Tetrachloride		<200	µg/Kg	200	1.00
1,2-Dichloropropane		<200	µg/Kg	200	1.00
Trichloroethene (TCE)		<200	µg/Kg	200	1.00
Dibromomethane (methylene bromide)		<200	µg/Kg	200	1.00
Bromodichloromethane		<200	µg/Kg	200	1.00
2-Chloroethyl vinyl ether		<1000	µg/Kg	200	5.00
cis-1,3-Dichloropropene		<200	µg/Kg	200	1.00
trans-1,3-Dichloropropene		<200	µg/Kg	200	1.00
Toluene		19000	µg/Kg	200	1.00
1,1,2-Trichloroethane		<200	µg/Kg	200	1.00
1,3-Dichloropropane		<200	µg/Kg	200	1.00
Dibromochloromethane		<200	µg/Kg	200	1.00
1,2-Dibromoethane (EDB)		<200	µg/Kg	200	1.00
Tetrachloroethene (PCE)		<200	µg/Kg	200	1.00
Chlorobenzene		<200	µg/Kg	200	1.00
1,1,1,2-Tetrachloroethane		<200	µg/Kg	200	1.00
Ethylbenzene		8880	µg/Kg	200	1.00
m,p-Xylene		18700	µg/Kg	200	1.00
Bromoform		<200	µg/Kg	200	1.00
Styrene		<200	µg/Kg	200	1.00
o-Xylene		8090	µg/Kg	200	1.00
1,1,2,2-Tetrachloroethane		<200	µg/Kg	200	1.00
2-Chlorotoluene		<200	µg/Kg	200	1.00
1,2,3-Trichloropropane		<200	µg/Kg	200	1.00
Isopropylbenzene		876	µg/Kg	200	1.00
Bromobenzene		<200	µg/Kg	200	1.00
n-Propylbenzene		2410	µg/Kg	200	1.00
1,3,5-Trimethylbenzene		2920	µg/Kg	200	1.00
tert-Butylbenzene		<200	µg/Kg	200	1.00
1,2,4-Trimethylbenzene		10900	µg/Kg	200	1.00
1,4-Dichlorobenzene (para)		<200	µg/Kg	200	1.00
sec-Butylbenzene		238	µg/Kg	200	1.00
1,3-Dichlorobenzene (meta)		<200	µg/Kg	200	1.00
p-Isopropyltoluene		<200	µg/Kg	200	1.00
4-Chlorotoluene		<200	µg/Kg	200	1.00
1,2-Dichlorobenzene (ortho)		<200	µg/Kg	200	1.00
n-Butylbenzene		550	µg/Kg	200	1.00
1,2-Dibromo-3-chloropropane		<1000	µg/Kg	200	5.00
1,2,3-Trichlorobenzene		<1000	µg/Kg	200	5.00
1,2,4-Trichlorobenzene		<1000	µg/Kg	200	5.00
Naphthalene		1310	µg/Kg	200	5.00

continued . . .

sample 33646 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobutadiene		<1000	µg/Kg	200	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		46.7	µg/Kg	1	50.0	93	70 - 130
Toluene-d8		47.8	µg/Kg	1	50.0	96	70 - 130
4-Bromo?uorobenzene (4-BFB)		47.5	µg/Kg	1	50.0	95	70 - 130

Sample: 33647 - HLSF-0154-SB-015-(31.5-32)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9784	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8686	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		53.2	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00

continued . . .

sample 33647 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		330	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		153	µg/Kg	10	1.00
m,p-Xylene		363	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		184	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		19.6	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		55.1	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		78.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		298	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		22.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		340	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		45.6	µg/Kg	1	50.0	91	70 - 130
Toluene-d8		47.9	µg/Kg	1	50.0	96	70 - 130
4-Bromo?uorobenzene (4-BFB)		47.1	µg/Kg	1	50.0	94	70 - 130

Sample: 33648 - HLSF-0154-SB-015-(36.5-37)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9784	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8686	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		14.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		45.1	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		18.0	µg/Kg	10	1.00
m,p-Xylene		43.1	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		19.4	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00

continued ...

sample 33648 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		10.1	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		35.4	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		50.1	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		45.8	µg/Kg	1	50.0	92	70 - 130
Toluene-d8		47.8	µg/Kg	1	50.0	96	70 - 130
4-Bromo?uorobenzene (4-BFB)		47.0	µg/Kg	1	50.0	94	70 - 130

Sample: 33649 - HLSF-0154-SB-015-(41.5-42)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9784	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8686	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<1000	µg/Kg	1000	1.00
Dichlorodi?uoromethane		<1000	µg/Kg	1000	1.00
Chloromethane (methyl chloride)		<1000	µg/Kg	1000	1.00
Vinyl Chloride		<1000	µg/Kg	1000	1.00
Bromomethane (methyl bromide)		<5000	µg/Kg	1000	5.00
Chloroethane		<1000	µg/Kg	1000	1.00
Trichloro?uoromethane		<1000	µg/Kg	1000	1.00
Acetone		<10000	µg/Kg	1000	10.0
Iodomethane (methyl iodide)		<5000	µg/Kg	1000	5.00
Carbon Disul?de		<1000	µg/Kg	1000	1.00
Acrylonitrile		<1000	µg/Kg	1000	1.00
2-Butanone (MEK)		<5000	µg/Kg	1000	5.00
4-Methyl-2-pentanone (MIBK)		<5000	µg/Kg	1000	5.00
2-Hexanone		<5000	µg/Kg	1000	5.00
trans 1,4-Dichloro-2-butene		<10000	µg/Kg	1000	10.0
1,1-Dichloroethene		<1000	µg/Kg	1000	1.00
Methylene chloride		<5000	µg/Kg	1000	5.00

continued...

sample 33649 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<1000	µg/Kg	1000	1.00
trans-1,2-Dichloroethene		<1000	µg/Kg	1000	1.00
1,1-Dichloroethane		<1000	µg/Kg	1000	1.00
cis-1,2-Dichloroethene		<1000	µg/Kg	1000	1.00
2,2-Dichloropropane		<1000	µg/Kg	1000	1.00
1,2-Dichloroethane (EDC)		<1000	µg/Kg	1000	1.00
Chloroform		<1000	µg/Kg	1000	1.00
1,1,1-Trichloroethane		<1000	µg/Kg	1000	1.00
1,1-Dichloropropene		<1000	µg/Kg	1000	1.00
Benzene		<1000	µg/Kg	1000	1.00
Carbon Tetrachloride		<1000	µg/Kg	1000	1.00
1,2-Dichloropropane		<1000	µg/Kg	1000	1.00
Trichloroethene (TCE)		<1000	µg/Kg	1000	1.00
Dibromomethane (methylene bromide)		<1000	µg/Kg	1000	1.00
Bromodichloromethane		<1000	µg/Kg	1000	1.00
2-Chloroethyl vinyl ether		<5000	µg/Kg	1000	5.00
cis-1,3-Dichloropropene		<1000	µg/Kg	1000	1.00
trans-1,3-Dichloropropene		<1000	µg/Kg	1000	1.00
Toluene		2230	µg/Kg	1000	1.00
1,1,2-Trichloroethane		<1000	µg/Kg	1000	1.00
1,3-Dichloropropane		<1000	µg/Kg	1000	1.00
Dibromochloromethane		<1000	µg/Kg	1000	1.00
1,2-Dibromoethane (EDB)		<1000	µg/Kg	1000	1.00
Tetrachloroethene (PCE)		<1000	µg/Kg	1000	1.00
Chlorobenzene		<1000	µg/Kg	1000	1.00
1,1,1,2-Tetrachloroethane		<1000	µg/Kg	1000	1.00
Ethylbenzene		<1000	µg/Kg	1000	1.00
m,p-Xylene		1520	µg/Kg	1000	1.00
Bromoform		<1000	µg/Kg	1000	1.00
Styrene		<1000	µg/Kg	1000	1.00
o-Xylene		<1000	µg/Kg	1000	1.00
1,1,2,2-Tetrachloroethane		<1000	µg/Kg	1000	1.00
2-Chlorotoluene		<1000	µg/Kg	1000	1.00
1,2,3-Trichloropropane		<1000	µg/Kg	1000	1.00
Isopropylbenzene		<1000	µg/Kg	1000	1.00
Bromobenzene		<1000	µg/Kg	1000	1.00
n-Propylbenzene		<1000	µg/Kg	1000	1.00
1,3,5-Trimethylbenzene		<1000	µg/Kg	1000	1.00
tert-Butylbenzene		<1000	µg/Kg	1000	1.00
1,2,4-Trimethylbenzene		1120	µg/Kg	1000	1.00
1,4-Dichlorobenzene (para)		<1000	µg/Kg	1000	1.00
sec-Butylbenzene		<1000	µg/Kg	1000	1.00
1,3-Dichlorobenzene (meta)		<1000	µg/Kg	1000	1.00
p-Isopropyltoluene		<1000	µg/Kg	1000	1.00
4-Chlorotoluene		<1000	µg/Kg	1000	1.00
1,2-Dichlorobenzene (ortho)		<1000	µg/Kg	1000	1.00
n-Butylbenzene		<1000	µg/Kg	1000	1.00
1,2-Dibromo-3-chloropropane		<5000	µg/Kg	1000	5.00
1,2,3-Trichlorobenzene		<5000	µg/Kg	1000	5.00
1,2,4-Trichlorobenzene		<5000	µg/Kg	1000	5.00
Naphthalene		<5000	µg/Kg	1000	5.00

continued . . .

sample 33649 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobutadiene		<5000	µg/Kg	1000	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.4	µg/Kg	1	50.0	95	70 - 130
Toluene-d8		48.6	µg/Kg	1	50.0	97	70 - 130
4-Bromo?uorobenzene (4-BFB)		47.1	µg/Kg	1	50.0	94	70 - 130

Sample: 33650 - HLSF-0154-SB-016-(6.5-7.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9784	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8686	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00

continued . . .

sample 33650 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		48.6	µg/Kg	1	50.0	97	70 - 130
Toluene-d8		49.2	µg/Kg	1	50.0	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.7	µg/Kg	1	50.0	93	70 - 130

Sample: 33651 - HLSF-0154-SB-016-(11.5-12.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9942	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8811	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00

continued . . .

sample 33651 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		52.6	µg/Kg	1	50.0	105	70 - 130
Toluene-d8		44.3	µg/Kg	1	50.0	89	70 - 130
4-Bromo?uorobenzene (4-BFB)		48.4	µg/Kg	1	50.0	97	70 - 130

Sample: 33652 - HLSF-0154-SB-016-(16.5-17.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9942	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8811	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00

continued . . .

sample 33652 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		19.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		28.2	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		15.5	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		31.5	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00

continued...

sample 33652 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		52.1	µg/Kg	1	50.0	104	70 - 130
Toluene-d8		44.4	µg/Kg	1	50.0	89	70 - 130
4-Bromo?uorobenzene (4-BFB)		48.8	µg/Kg	1	50.0	98	70 - 130

Sample: 33653 - HLSF-0154-SB-016-(20.5-21.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9942	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8811	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<1000	µg/Kg	1000	1.00
Dichlorodi?uoromethane		<1000	µg/Kg	1000	1.00
Chloromethane (methyl chloride)		<1000	µg/Kg	1000	1.00
Vinyl Chloride		<1000	µg/Kg	1000	1.00
Bromomethane (methyl bromide)		<5000	µg/Kg	1000	5.00
Chloroethane		<1000	µg/Kg	1000	1.00
Trichloro?uoromethane		<1000	µg/Kg	1000	1.00
Acetone		<10000	µg/Kg	1000	10.0
Iodomethane (methyl iodide)		<5000	µg/Kg	1000	5.00
Carbon Disul?de		<1000	µg/Kg	1000	1.00
Acrylonitrile		<1000	µg/Kg	1000	1.00
2-Butanone (MEK)		<5000	µg/Kg	1000	5.00
4-Methyl-2-pentanone (MIBK)		<5000	µg/Kg	1000	5.00
2-Hexanone		<5000	µg/Kg	1000	5.00
trans 1,4-Dichloro-2-butene		<10000	µg/Kg	1000	10.0
1,1-Dichloroethene		<1000	µg/Kg	1000	1.00
Methylene chloride		<5000	µg/Kg	1000	5.00
MTBE		<1000	µg/Kg	1000	1.00
trans-1,2-Dichloroethene		<1000	µg/Kg	1000	1.00
1,1-Dichloroethane		<1000	µg/Kg	1000	1.00
cis-1,2-Dichloroethene		<1000	µg/Kg	1000	1.00
2,2-Dichloropropane		<1000	µg/Kg	1000	1.00
1,2-Dichloroethane (EDC)		<1000	µg/Kg	1000	1.00
Chloroform		<1000	µg/Kg	1000	1.00
1,1,1-Trichloroethane		<1000	µg/Kg	1000	1.00
1,1-Dichloropropene		<1000	µg/Kg	1000	1.00
Benzene		1210	µg/Kg	1000	1.00
Carbon Tetrachloride		<1000	µg/Kg	1000	1.00
1,2-Dichloropropane		<1000	µg/Kg	1000	1.00
Trichloroethene (TCE)		<1000	µg/Kg	1000	1.00
Dibromomethane (methylene bromide)		<1000	µg/Kg	1000	1.00
Bromodichloromethane		<1000	µg/Kg	1000	1.00
2-Chloroethyl vinyl ether		<5000	µg/Kg	1000	5.00

continued . . .

sample 33653 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
cis-1,3-Dichloropropene		<1000	µg/Kg	1000	1.00
trans-1,3-Dichloropropene		<1000	µg/Kg	1000	1.00
Toluene		21500	µg/Kg	1000	1.00
1,1,2-Trichloroethane		<1000	µg/Kg	1000	1.00
1,3-Dichloropropane		<1000	µg/Kg	1000	1.00
Dibromochloromethane		<1000	µg/Kg	1000	1.00
1,2-Dibromoethane (EDB)		<1000	µg/Kg	1000	1.00
Tetrachloroethene (PCE)		<1000	µg/Kg	1000	1.00
Chlorobenzene		<1000	µg/Kg	1000	1.00
1,1,1,2-Tetrachloroethane		<1000	µg/Kg	1000	1.00
Ethylbenzene		16800	µg/Kg	1000	1.00
m,p-Xylene		41800	µg/Kg	1000	1.00
Bromoform		<1000	µg/Kg	1000	1.00
Styrene		<1000	µg/Kg	1000	1.00
o-Xylene		18600	µg/Kg	1000	1.00
1,1,2,2-Tetrachloroethane		<1000	µg/Kg	1000	1.00
2-Chlorotoluene		<1000	µg/Kg	1000	1.00
1,2,3-Trichloropropane		<1000	µg/Kg	1000	1.00
Isopropylbenzene		2110	µg/Kg	1000	1.00
Bromobenzene		<1000	µg/Kg	1000	1.00
n-Propylbenzene		5800	µg/Kg	1000	1.00
1,3,5-Trimethylbenzene		8190	µg/Kg	1000	1.00
tert-Butylbenzene		<1000	µg/Kg	1000	1.00
1,2,4-Trimethylbenzene		30500	µg/Kg	1000	1.00
1,4-Dichlorobenzene (para)		<1000	µg/Kg	1000	1.00
sec-Butylbenzene		1020	µg/Kg	1000	1.00
1,3-Dichlorobenzene (meta)		<1000	µg/Kg	1000	1.00
p-Isopropyltoluene		<1000	µg/Kg	1000	1.00
4-Chlorotoluene		<1000	µg/Kg	1000	1.00
1,2-Dichlorobenzene (ortho)		<1000	µg/Kg	1000	1.00
n-Butylbenzene		2140	µg/Kg	1000	1.00
1,2-Dibromo-3-chloropropane		<5000	µg/Kg	1000	5.00
1,2,3-Trichlorobenzene		<5000	µg/Kg	1000	5.00
1,2,4-Trichlorobenzene		<5000	µg/Kg	1000	5.00
Naphthalene		<5000	µg/Kg	1000	5.00
Hexachlorobutadiene		<5000	µg/Kg	1000	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		53.2	µg/Kg	1	50.0	106	70 - 130
Toluene-d8		44.0	µg/Kg	1	50.0	88	70 - 130
4-Bromo?uorobenzene (4-BFB)		48.0	µg/Kg	1	50.0	96	70 - 130

Sample: 33654 - HLSF-0154-SB-116-(20.5-21.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9942	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8811	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<1000	µg/Kg	1000	1.00
Dichlorodi?uoromethane		<1000	µg/Kg	1000	1.00
Chloromethane (methyl chloride)		<1000	µg/Kg	1000	1.00
Vinyl Chloride		<1000	µg/Kg	1000	1.00
Bromomethane (methyl bromide)		<5000	µg/Kg	1000	5.00
Chloroethane		<1000	µg/Kg	1000	1.00
Trichloro?uoromethane		<1000	µg/Kg	1000	1.00
Acetone		<10000	µg/Kg	1000	10.0
Iodomethane (methyl iodide)		<5000	µg/Kg	1000	5.00
Carbon Disul?de		<1000	µg/Kg	1000	1.00
Acrylonitrile		<1000	µg/Kg	1000	1.00
2-Butanone (MEK)		<5000	µg/Kg	1000	5.00
4-Methyl-2-pentanone (MIBK)		<5000	µg/Kg	1000	5.00
2-Hexanone		<5000	µg/Kg	1000	5.00
trans 1,4-Dichloro-2-butene		<10000	µg/Kg	1000	10.0
1,1-Dichloroethene		<1000	µg/Kg	1000	1.00
Methylene chloride		<5000	µg/Kg	1000	5.00
MTBE		<1000	µg/Kg	1000	1.00
trans-1,2-Dichloroethene		<1000	µg/Kg	1000	1.00
1,1-Dichloroethane		<1000	µg/Kg	1000	1.00
cis-1,2-Dichloroethene		<1000	µg/Kg	1000	1.00
2,2-Dichloropropane		<1000	µg/Kg	1000	1.00
1,2-Dichloroethane (EDC)		<1000	µg/Kg	1000	1.00
Chloroform		<1000	µg/Kg	1000	1.00
1,1,1-Trichloroethane		<1000	µg/Kg	1000	1.00
1,1-Dichloropropene		<1000	µg/Kg	1000	1.00
Benzene		1230	µg/Kg	1000	1.00
Carbon Tetrachloride		<1000	µg/Kg	1000	1.00
1,2-Dichloropropane		<1000	µg/Kg	1000	1.00
Trichloroethene (TCE)		<1000	µg/Kg	1000	1.00
Dibromomethane (methylene bromide)		<1000	µg/Kg	1000	1.00
Bromodichloromethane		<1000	µg/Kg	1000	1.00
2-Chloroethyl vinyl ether		<5000	µg/Kg	1000	5.00
cis-1,3-Dichloropropene		<1000	µg/Kg	1000	1.00
trans-1,3-Dichloropropene		<1000	µg/Kg	1000	1.00
Toluene		21300	µg/Kg	1000	1.00
1,1,2-Trichloroethane		<1000	µg/Kg	1000	1.00
1,3-Dichloropropane		<1000	µg/Kg	1000	1.00
Dibromochloromethane		<1000	µg/Kg	1000	1.00
1,2-Dibromoethane (EDB)		<1000	µg/Kg	1000	1.00
Tetrachloroethene (PCE)		<1000	µg/Kg	1000	1.00
Chlorobenzene		<1000	µg/Kg	1000	1.00
1,1,1,2-Tetrachloroethane		<1000	µg/Kg	1000	1.00
Ethylbenzene		16800	µg/Kg	1000	1.00
m,p-Xylene		41700	µg/Kg	1000	1.00
Bromoform		<1000	µg/Kg	1000	1.00
Styrene		<1000	µg/Kg	1000	1.00
o-Xylene		18600	µg/Kg	1000	1.00
1,1,2,2-Tetrachloroethane		<1000	µg/Kg	1000	1.00
2-Chlorotoluene		<1000	µg/Kg	1000	1.00
1,2,3-Trichloropropane		<1000	µg/Kg	1000	1.00
Isopropylbenzene		2100	µg/Kg	1000	1.00

continued . . .

sample 33654 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Bromobenzene		<1000	µg/Kg	1000	1.00
n-Propylbenzene		5730	µg/Kg	1000	1.00
1,3,5-Trimethylbenzene		8060	µg/Kg	1000	1.00
tert-Butylbenzene		<1000	µg/Kg	1000	1.00
1,2,4-Trimethylbenzene		30300	µg/Kg	1000	1.00
1,4-Dichlorobenzene (para)		<1000	µg/Kg	1000	1.00
sec-Butylbenzene		<1000	µg/Kg	1000	1.00
1,3-Dichlorobenzene (meta)		<1000	µg/Kg	1000	1.00
p-Isopropyltoluene		<1000	µg/Kg	1000	1.00
4-Chlorotoluene		<1000	µg/Kg	1000	1.00
1,2-Dichlorobenzene (ortho)		<1000	µg/Kg	1000	1.00
n-Butylbenzene		2150	µg/Kg	1000	1.00
1,2-Dibromo-3-chloropropane		<5000	µg/Kg	1000	5.00
1,2,3-Trichlorobenzene		<5000	µg/Kg	1000	5.00
1,2,4-Trichlorobenzene		<5000	µg/Kg	1000	5.00
Naphthalene		<5000	µg/Kg	1000	5.00
Hexachlorobutadiene		<5000	µg/Kg	1000	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		53.3	µg/Kg	1	50.0	107	70 - 130
Toluene-d8		44.5	µg/Kg	1	50.0	89	70 - 130
4-Bromo?uorobenzene (4-BFB)		48.5	µg/Kg	1	50.0	97	70 - 130

Sample: 33655 - HLSF-0154-SB-016-(26.5-27)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9942	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8811	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00

continued . . .

sample 33655 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		1060	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		2000	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		207	µg/Kg	10	1.00
m,p-Xylene		401	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		218	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		14.9	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		17.2	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		79.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00

continued . . .

sample 33655 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		51.7	µg/Kg	1	50.0	103	70 - 130
Toluene-d8		44.1	µg/Kg	1	50.0	88	70 - 130
4-Bromo?uorobenzene (4-BFB)		48.6	µg/Kg	1	50.0	97	70 - 130

Sample: 33656 - HLSF-0154-SB-016-(30.5-31.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9942	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8811	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<20.0	µg/Kg	20	1.00
Dichlorodi?uoromethane		<20.0	µg/Kg	20	1.00
Chloromethane (methyl chloride)		<20.0	µg/Kg	20	1.00
Vinyl Chloride		<20.0	µg/Kg	20	1.00
Bromomethane (methyl bromide)		<100	µg/Kg	20	5.00
Chloroethane		<20.0	µg/Kg	20	1.00
Trichloro?uoromethane		<20.0	µg/Kg	20	1.00
Acetone		<200	µg/Kg	20	10.0
Iodomethane (methyl iodide)		<100	µg/Kg	20	5.00
Carbon Disul?de		<20.0	µg/Kg	20	1.00
Acrylonitrile		<20.0	µg/Kg	20	1.00
2-Butanone (MEK)		<100	µg/Kg	20	5.00
4-Methyl-2-pentanone (MIBK)		<100	µg/Kg	20	5.00
2-Hexanone		<100	µg/Kg	20	5.00
trans 1,4-Dichloro-2-butene		<200	µg/Kg	20	10.0
1,1-Dichloroethene		<20.0	µg/Kg	20	1.00
Methylene chloride		<100	µg/Kg	20	5.00
MTBE		<20.0	µg/Kg	20	1.00
trans-1,2-Dichloroethene		<20.0	µg/Kg	20	1.00
1,1-Dichloroethane		<20.0	µg/Kg	20	1.00
cis-1,2-Dichloroethene		<20.0	µg/Kg	20	1.00
2,2-Dichloropropane		<20.0	µg/Kg	20	1.00
1,2-Dichloroethane (EDC)		<20.0	µg/Kg	20	1.00
Chloroform		<20.0	µg/Kg	20	1.00
1,1,1-Trichloroethane		<20.0	µg/Kg	20	1.00
1,1-Dichloropropene		<20.0	µg/Kg	20	1.00
Benzene		1510	µg/Kg	20	1.00
Carbon Tetrachloride		<20.0	µg/Kg	20	1.00
1,2-Dichloropropane		<20.0	µg/Kg	20	1.00
Trichloroethene (TCE)		<20.0	µg/Kg	20	1.00
Dibromomethane (methylene bromide)		<20.0	µg/Kg	20	1.00
Bromodichloromethane		<20.0	µg/Kg	20	1.00
2-Chloroethyl vinyl ether		<100	µg/Kg	20	5.00

continued . . .

sample 33656 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
cis-1,3-Dichloropropene		<20.0	µg/Kg	20	1.00
trans-1,3-Dichloropropene		<20.0	µg/Kg	20	1.00
Toluene		4100	µg/Kg	20	1.00
1,1,2-Trichloroethane		<20.0	µg/Kg	20	1.00
1,3-Dichloropropane		<20.0	µg/Kg	20	1.00
Dibromochloromethane		<20.0	µg/Kg	20	1.00
1,2-Dibromoethane (EDB)		<20.0	µg/Kg	20	1.00
Tetrachloroethene (PCE)		<20.0	µg/Kg	20	1.00
Chlorobenzene		<20.0	µg/Kg	20	1.00
1,1,1,2-Tetrachloroethane		<20.0	µg/Kg	20	1.00
Ethylbenzene		986	µg/Kg	20	1.00
m,p-Xylene		1990	µg/Kg	20	1.00
Bromoform		<20.0	µg/Kg	20	1.00
Styrene		<20.0	µg/Kg	20	1.00
o-Xylene		905	µg/Kg	20	1.00
1,1,2,2-Tetrachloroethane		<20.0	µg/Kg	20	1.00
2-Chlorotoluene		<20.0	µg/Kg	20	1.00
1,2,3-Trichloropropane		<20.0	µg/Kg	20	1.00
Isopropylbenzene		91.2	µg/Kg	20	1.00
Bromobenzene		<20.0	µg/Kg	20	1.00
n-Propylbenzene		240	µg/Kg	20	1.00
1,3,5-Trimethylbenzene		273	µg/Kg	20	1.00
tert-Butylbenzene		<20.0	µg/Kg	20	1.00
1,2,4-Trimethylbenzene		1040	µg/Kg	20	1.00
1,4-Dichlorobenzene (para)		<20.0	µg/Kg	20	1.00
sec-Butylbenzene		<20.0	µg/Kg	20	1.00
1,3-Dichlorobenzene (meta)		<20.0	µg/Kg	20	1.00
p-Isopropyltoluene		<20.0	µg/Kg	20	1.00
4-Chlorotoluene		<20.0	µg/Kg	20	1.00
1,2-Dichlorobenzene (ortho)		<20.0	µg/Kg	20	1.00
n-Butylbenzene		<20.0	µg/Kg	20	1.00
1,2-Dibromo-3-chloropropane		<100	µg/Kg	20	5.00
1,2,3-Trichlorobenzene		<100	µg/Kg	20	5.00
1,2,4-Trichlorobenzene		<100	µg/Kg	20	5.00
Naphthalene		<100	µg/Kg	20	5.00
Hexachlorobutadiene		<100	µg/Kg	20	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		51.5	µg/Kg	1	50.0	103	70 - 130
Toluene-d8		44.6	µg/Kg	1	50.0	89	70 - 130
4-Bromo?uorobenzene (4-BFB)		49.3	µg/Kg	1	50.0	99	70 - 130

Sample: 33657 - HLSF-0154-SB-016-(35.5-36)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9942	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8811	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		354	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		1680	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		318	µg/Kg	10	1.00
m,p-Xylene		639	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		290	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00

continued . . .

sample 33657 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		51.3	µg/Kg	1	50.0	103	70 - 130
Toluene-d8		44.6	µg/Kg	1	50.0	89	70 - 130
4-Bromo?uorobenzene (4-BFB)		48.7	µg/Kg	1	50.0	97	70 - 130

Sample: 33658 - HLSF-0154-SB-016-(41.5-42.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9942	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8811	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00

continued...

sample 33658 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		214	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		1150	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		425	µg/Kg	10	1.00
m,p-Xylene		920	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		430	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		48.5	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		135	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		161	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		610	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		37.1	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00

continued . . .

sample 33658 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		51.2	µg/Kg	1	50.0	102	70 - 130
Toluene-d8		45.1	µg/Kg	1	50.0	90	70 - 130
4-Bromo?uorobenzene (4-BFB)		48.2	µg/Kg	1	50.0	96	70 - 130

Sample: 33659 - HLSF-0154-SB-014-(26.5-27)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9942	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8811	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00

continued . . .

sample 33659 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		50.9	µg/Kg	1	50.0	102	70 - 130
Toluene-d8		44.9	µg/Kg	1	50.0	90	70 - 130
4-Bromo?uorobenzene (4-BFB)		49.3	µg/Kg	1	50.0	99	70 - 130

Sample: 33836 - HLSF-0154-SB-017-(6.5-7.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9866	Date Analyzed:	2004-05-13	Analyzed By:	JG
Prep Batch:	8743	Date Prepared:	2004-05-13	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00

continued . . .

sample 33836 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		45.2	µg/Kg	1	50.0	90	70 - 130
Toluene-d8		48.1	µg/Kg	1	50.0	96	70 - 130
4-Bromo?uorobenzene (4-BFB)		45.8	µg/Kg	1	50.0	92	70 - 130

Sample: 33837 - HLSF-0154-SB-017-(11.5-12.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9866	Date Analyzed:	2004-05-13	Analyzed By:	JG
Prep Batch:	8743	Date Prepared:	2004-05-13	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00

continued . . .

sample 33837 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00

continued . . .

sample 33837 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		45.4	µg/Kg	1	50.0	91	70 - 130
Toluene-d8		47.9	µg/Kg	1	50.0	96	70 - 130
4-Bromo?uorobenzene (4-BFB)		45.5	µg/Kg	1	50.0	91	70 - 130

Sample: 33838 - HLSF-0154-SB-017-(16.5-17.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9866	Date Analyzed:	2004-05-13	Analyzed By:	JG
Prep Batch:	8743	Date Prepared:	2004-05-13	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00

continued . . .

sample 33838 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		46.6	µg/Kg	1	50.0	93	70 - 130
Toluene-d8		47.7	µg/Kg	1	50.0	95	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.4	µg/Kg	1	50.0	93	70 - 130

Sample: 33839 - HLSF-0154-SB-017-(21.0-21.5)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9866	Date Analyzed:	2004-05-13	Analyzed By:	JG
Prep Batch:	8743	Date Prepared:	2004-05-13	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10000	µg/Kg	10000	1.00
Dichlorodi?uoromethane		<10000	µg/Kg	10000	1.00
Chloromethane (methyl chloride)		<10000	µg/Kg	10000	1.00
Vinyl Chloride		<10000	µg/Kg	10000	1.00
Bromomethane (methyl bromide)		<50000	µg/Kg	10000	5.00
Chloroethane		<10000	µg/Kg	10000	1.00
Trichloro?uoromethane		<10000	µg/Kg	10000	1.00
Acetone		<100000	µg/Kg	10000	10.0
Iodomethane (methyl iodide)		<50000	µg/Kg	10000	5.00
Carbon Disul?de		<10000	µg/Kg	10000	1.00
Acrylonitrile		<10000	µg/Kg	10000	1.00
2-Butanone (MEK)		<50000	µg/Kg	10000	5.00
4-Methyl-2-pentanone (MIBK)		<50000	µg/Kg	10000	5.00
2-Hexanone		<50000	µg/Kg	10000	5.00
trans 1,4-Dichloro-2-butene		<100000	µg/Kg	10000	10.0
1,1-Dichloroethene		<10000	µg/Kg	10000	1.00
Methylene chloride		<50000	µg/Kg	10000	5.00
MTBE		<10000	µg/Kg	10000	1.00
trans-1,2-Dichloroethene		<10000	µg/Kg	10000	1.00
1,1-Dichloroethane		<10000	µg/Kg	10000	1.00
cis-1,2-Dichloroethene		<10000	µg/Kg	10000	1.00
2,2-Dichloropropane		<10000	µg/Kg	10000	1.00
1,2-Dichloroethane (EDC)		<10000	µg/Kg	10000	1.00
Chloroform		<10000	µg/Kg	10000	1.00
1,1,1-Trichloroethane		<10000	µg/Kg	10000	1.00
1,1-Dichloropropene		<10000	µg/Kg	10000	1.00
Benzene		10100	µg/Kg	10000	1.00
Carbon Tetrachloride		<10000	µg/Kg	10000	1.00
1,2-Dichloropropane		<10000	µg/Kg	10000	1.00
Trichloroethene (TCE)		<10000	µg/Kg	10000	1.00
Dibromomethane (methylene bromide)		<10000	µg/Kg	10000	1.00
Bromodichloromethane		<10000	µg/Kg	10000	1.00
2-Chloroethyl vinyl ether		<50000	µg/Kg	10000	5.00
cis-1,3-Dichloropropene		<10000	µg/Kg	10000	1.00
trans-1,3-Dichloropropene		<10000	µg/Kg	10000	1.00
Toluene		177000	µg/Kg	10000	1.00
1,1,2-Trichloroethane		<10000	µg/Kg	10000	1.00
1,3-Dichloropropane		<10000	µg/Kg	10000	1.00
Dibromochloromethane		<10000	µg/Kg	10000	1.00
1,2-Dibromoethane (EDB)		<10000	µg/Kg	10000	1.00
Tetrachloroethene (PCE)		<10000	µg/Kg	10000	1.00
Chlorobenzene		<10000	µg/Kg	10000	1.00
1,1,1,2-Tetrachloroethane		<10000	µg/Kg	10000	1.00
Ethylbenzene		57600	µg/Kg	10000	1.00
m,p-Xylene		126000	µg/Kg	10000	1.00
Bromoform		<10000	µg/Kg	10000	1.00
Styrene		<10000	µg/Kg	10000	1.00
o-Xylene		44300	µg/Kg	10000	1.00
1,1,2,2-Tetrachloroethane		<10000	µg/Kg	10000	1.00
2-Chlorotoluene		<10000	µg/Kg	10000	1.00
1,2,3-Trichloropropane		<10000	µg/Kg	10000	1.00
Isopropylbenzene		<10000	µg/Kg	10000	1.00

continued . . .

sample 33839 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Bromobenzene		<10000	µg/Kg	10000	1.00
n-Propylbenzene		10900	µg/Kg	10000	1.00
1,3,5-Trimethylbenzene		13900	µg/Kg	10000	1.00
tert-Butylbenzene		<10000	µg/Kg	10000	1.00
1,2,4-Trimethylbenzene		49500	µg/Kg	10000	1.00
1,4-Dichlorobenzene (para)		<10000	µg/Kg	10000	1.00
sec-Butylbenzene		<10000	µg/Kg	10000	1.00
1,3-Dichlorobenzene (meta)		<10000	µg/Kg	10000	1.00
p-Isopropyltoluene		<10000	µg/Kg	10000	1.00
4-Chlorotoluene		<10000	µg/Kg	10000	1.00
1,2-Dichlorobenzene (ortho)		<10000	µg/Kg	10000	1.00
n-Butylbenzene		<10000	µg/Kg	10000	1.00
1,2-Dibromo-3-chloropropane		<50000	µg/Kg	10000	5.00
1,2,3-Trichlorobenzene		<50000	µg/Kg	10000	5.00
1,2,4-Trichlorobenzene		<50000	µg/Kg	10000	5.00
Naphthalene		<50000	µg/Kg	10000	5.00
Hexachlorobutadiene		<50000	µg/Kg	10000	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		46.4	µg/Kg	1	50.0	93	70 - 130
Toluene-d8		47.6	µg/Kg	1	50.0	95	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.8	µg/Kg	1	50.0	94	70 - 130

Sample: 33840 - HLSF-0154-SB-017-(26.5-27)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9866	Date Analyzed:	2004-05-13	Analyzed By:	JG
Prep Batch:	8743	Date Prepared:	2004-05-13	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00

continued . . .

sample 33840 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		146	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		188	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		477	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		84.7	µg/Kg	10	1.00
m,p-Xylene		181	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		80.1	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		10.7	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		15.2	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		57.9	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00

continued . . .

sample 33840 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		45.7	µg/Kg	1	50.0	91	70 - 130
Toluene-d8		48.4	µg/Kg	1	50.0	97	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.5	µg/Kg	1	50.0	93	70 - 130

Sample: 33841 - HLSF-0154-SB-017-(31.5-32)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9866	Date Analyzed:	2004-05-13	Analyzed By:	JG
Prep Batch:	8743	Date Prepared:	2004-05-13	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		125	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		241	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00

continued . . .

sample 33841 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		525	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		96.5	µg/Kg	10	1.00
m,p-Xylene		215	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		103	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		16.2	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		23.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		97.4	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		45.4	µg/Kg	1	50.0	91	70 - 130
Toluene-d8		47.7	µg/Kg	1	50.0	95	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.6	µg/Kg	1	50.0	93	70 - 130

Sample: 33842 - HLSF-0154-SB-017-(36.5-37)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9866	Date Analyzed:	2004-05-13	Analyzed By:	JG
Prep Batch:	8743	Date Prepared:	2004-05-13	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00

continued . . .

sample 33842 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		45.2	µg/Kg	1	50.0	90	70 - 130
Toluene-d8		47.9	µg/Kg	1	50.0	96	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.6	µg/Kg	1	50.0	93	70 - 130

Sample: 33843 - HLSF-0154-SB-017-(41.5-42)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9866	Date Analyzed:	2004-05-13	Analyzed By:	JG
Prep Batch:	8743	Date Prepared:	2004-05-13	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00

continued . . .

sample 33843 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		17.6	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		102	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		22.1	µg/Kg	10	1.00
m,p-Xylene		52.1	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		24.2	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		30.9	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00

continued . . .

sample 33843 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		46.0	µg/Kg	1	50.0	92	70 - 130
Toluene-d8		48.6	µg/Kg	1	50.0	97	70 - 130
4-Bromo?uorobenzene (4-BFB)		47.0	µg/Kg	1	50.0	94	70 - 130

Sample: 33844 - HLSF-0154-SB-018-(6.5-7.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9866	Date Analyzed:	2004-05-13	Analyzed By:	JG
Prep Batch:	8743	Date Prepared:	2004-05-13	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00

continued...

sample 33844 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		45.5	µg/Kg	1	50.0	91	70 - 130
Toluene-d8		48.4	µg/Kg	1	50.0	97	70 - 130
4-Bromo?uorobenzene (4-BFB)		45.8	µg/Kg	1	50.0	92	70 - 130

Sample: 33845 - HLSF-0154-SB-018-(11.5-12.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9866	Date Analyzed:	2004-05-13	Analyzed By:	JG
Prep Batch:	8743	Date Prepared:	2004-05-13	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00

continued . . .

sample 33845 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		46.0	µg/Kg	1	50.0	92	70 - 130
Toluene-d8		48.2	µg/Kg	1	50.0	96	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.0	µg/Kg	1	50.0	92	70 - 130

Sample: 33846 - HLSF-0154-SB-018-(16.5-17)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9866	Date Analyzed:	2004-05-13	Analyzed By:	JG
Prep Batch:	8743	Date Prepared:	2004-05-13	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00

continued . . .

sample 33846 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		<10.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		<10.0	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		<10.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00

continued . . .

sample 33846 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		46.2	µg/Kg	1	50.0	92	70 - 130
Toluene-d8		48.2	µg/Kg	1	50.0	96	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.5	µg/Kg	1	50.0	93	70 - 130

Sample: 33847 - HLSF-0154-SB-018-(20.5-21.0)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9866	Date Analyzed:	2004-05-13	Analyzed By:	JG
Prep Batch:	8743	Date Prepared:	2004-05-13	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10000	µg/Kg	10000	1.00
Dichlorodi?uoromethane		<10000	µg/Kg	10000	1.00
Chloromethane (methyl chloride)		<10000	µg/Kg	10000	1.00
Vinyl Chloride		<10000	µg/Kg	10000	1.00
Bromomethane (methyl bromide)		<50000	µg/Kg	10000	5.00
Chloroethane		<10000	µg/Kg	10000	1.00
Trichloro?uoromethane		<10000	µg/Kg	10000	1.00
Acetone		<100000	µg/Kg	10000	10.0
Iodomethane (methyl iodide)		<50000	µg/Kg	10000	5.00
Carbon Disul?de		<10000	µg/Kg	10000	1.00
Acrylonitrile		<10000	µg/Kg	10000	1.00
2-Butanone (MEK)		<50000	µg/Kg	10000	5.00
4-Methyl-2-pentanone (MIBK)		<50000	µg/Kg	10000	5.00
2-Hexanone		<50000	µg/Kg	10000	5.00
trans 1,4-Dichloro-2-butene		<100000	µg/Kg	10000	10.0
1,1-Dichloroethene		<10000	µg/Kg	10000	1.00
Methylene chloride		<50000	µg/Kg	10000	5.00
MTBE		<10000	µg/Kg	10000	1.00
trans-1,2-Dichloroethene		<10000	µg/Kg	10000	1.00
1,1-Dichloroethane		<10000	µg/Kg	10000	1.00
cis-1,2-Dichloroethene		<10000	µg/Kg	10000	1.00
2,2-Dichloropropane		<10000	µg/Kg	10000	1.00
1,2-Dichloroethane (EDC)		<10000	µg/Kg	10000	1.00
Chloroform		<10000	µg/Kg	10000	1.00
1,1,1-Trichloroethane		<10000	µg/Kg	10000	1.00
1,1-Dichloropropene		<10000	µg/Kg	10000	1.00
Benzene		<10000	µg/Kg	10000	1.00
Carbon Tetrachloride		<10000	µg/Kg	10000	1.00
1,2-Dichloropropane		<10000	µg/Kg	10000	1.00
Trichloroethene (TCE)		<10000	µg/Kg	10000	1.00
Dibromomethane (methylene bromide)		<10000	µg/Kg	10000	1.00
Bromodichloromethane		<10000	µg/Kg	10000	1.00
2-Chloroethyl vinyl ether		<50000	µg/Kg	10000	5.00

continued . . .

sample 33847 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
cis-1,3-Dichloropropene		<10000	µg/Kg	10000	1.00
trans-1,3-Dichloropropene		<10000	µg/Kg	10000	1.00
Toluene		<10000	µg/Kg	10000	1.00
1,1,2-Trichloroethane		<10000	µg/Kg	10000	1.00
1,3-Dichloropropane		<10000	µg/Kg	10000	1.00
Dibromochloromethane		<10000	µg/Kg	10000	1.00
1,2-Dibromoethane (EDB)		<10000	µg/Kg	10000	1.00
Tetrachloroethene (PCE)		<10000	µg/Kg	10000	1.00
Chlorobenzene		<10000	µg/Kg	10000	1.00
1,1,1,2-Tetrachloroethane		<10000	µg/Kg	10000	1.00
Ethylbenzene		149000	µg/Kg	10000	1.00
m,p-Xylene		340000	µg/Kg	10000	1.00
Bromoform		<10000	µg/Kg	10000	1.00
Styrene		<10000	µg/Kg	10000	1.00
o-Xylene		109000	µg/Kg	10000	1.00
1,1,2,2-Tetrachloroethane		<10000	µg/Kg	10000	1.00
2-Chlorotoluene		<10000	µg/Kg	10000	1.00
1,2,3-Trichloropropane		<10000	µg/Kg	10000	1.00
Isopropylbenzene		30900	µg/Kg	10000	1.00
Bromobenzene		<10000	µg/Kg	10000	1.00
n-Propylbenzene		92000	µg/Kg	10000	1.00
1,3,5-Trimethylbenzene		107000	µg/Kg	10000	1.00
tert-Butylbenzene		<10000	µg/Kg	10000	1.00
1,2,4-Trimethylbenzene		388000	µg/Kg	10000	1.00
1,4-Dichlorobenzene (para)		<10000	µg/Kg	10000	1.00
sec-Butylbenzene		<10000	µg/Kg	10000	1.00
1,3-Dichlorobenzene (meta)		<10000	µg/Kg	10000	1.00
p-Isopropyltoluene		<10000	µg/Kg	10000	1.00
4-Chlorotoluene		<10000	µg/Kg	10000	1.00
1,2-Dichlorobenzene (ortho)		<10000	µg/Kg	10000	1.00
n-Butylbenzene		19600	µg/Kg	10000	1.00
1,2-Dibromo-3-chloropropane		<50000	µg/Kg	10000	5.00
1,2,3-Trichlorobenzene		<50000	µg/Kg	10000	5.00
1,2,4-Trichlorobenzene		<50000	µg/Kg	10000	5.00
Naphthalene		<50000	µg/Kg	10000	5.00
Hexachlorobutadiene		<50000	µg/Kg	10000	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		48.8	µg/Kg	1	50.0	98	70 - 130
Toluene-d8		48.0	µg/Kg	1	50.0	96	70 - 130
4-Bromo?uorobenzene (4-BFB)		47.5	µg/Kg	1	50.0	95	70 - 130

Sample: 33848 - HLSF-0154-SB-018-(26.5-27)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9866	Date Analyzed:	2004-05-13	Analyzed By:	JG
Prep Batch:	8743	Date Prepared:	2004-05-13	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		19.3	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		30.8	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		22.0	µg/Kg	10	1.00
m,p-Xylene		53.0	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		20.6	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00

continued . . .

sample 33848 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		13.5	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		50.6	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		46.7	µg/Kg	1	50.0	93	70 - 130
Toluene-d8		47.8	µg/Kg	1	50.0	96	70 - 130
4-Bromo?uorobenzene (4-BFB)		47.0	µg/Kg	1	50.0	94	70 - 130

Sample: 33849 - HLSF-0154-SB-018-(30.5-31)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9866	Date Analyzed:	2004-05-13	Analyzed By:	JG
Prep Batch:	8743	Date Prepared:	2004-05-13	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10000	µg/Kg	10000	1.00
Dichlorodi?uoromethane		<10000	µg/Kg	10000	1.00
Chloromethane (methyl chloride)		<10000	µg/Kg	10000	1.00
Vinyl Chloride		<10000	µg/Kg	10000	1.00
Bromomethane (methyl bromide)		<50000	µg/Kg	10000	5.00
Chloroethane		<10000	µg/Kg	10000	1.00
Trichloro?uoromethane		<10000	µg/Kg	10000	1.00
Acetone		<100000	µg/Kg	10000	10.0
Iodomethane (methyl iodide)		<50000	µg/Kg	10000	5.00
Carbon Disul?de		<10000	µg/Kg	10000	1.00
Acrylonitrile		<10000	µg/Kg	10000	1.00
2-Butanone (MEK)		<50000	µg/Kg	10000	5.00
4-Methyl-2-pentanone (MIBK)		<50000	µg/Kg	10000	5.00
2-Hexanone		<50000	µg/Kg	10000	5.00
trans 1,4-Dichloro-2-butene		<100000	µg/Kg	10000	10.0
1,1-Dichloroethene		<10000	µg/Kg	10000	1.00
Methylene chloride		<50000	µg/Kg	10000	5.00

continued . . .

sample 33849 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<10000	µg/Kg	10000	1.00
trans-1,2-Dichloroethene		<10000	µg/Kg	10000	1.00
1,1-Dichloroethane		<10000	µg/Kg	10000	1.00
cis-1,2-Dichloroethene		<10000	µg/Kg	10000	1.00
2,2-Dichloropropane		<10000	µg/Kg	10000	1.00
1,2-Dichloroethane (EDC)		<10000	µg/Kg	10000	1.00
Chloroform		<10000	µg/Kg	10000	1.00
1,1,1-Trichloroethane		<10000	µg/Kg	10000	1.00
1,1-Dichloropropene		<10000	µg/Kg	10000	1.00
Benzene		80000	µg/Kg	10000	1.00
Carbon Tetrachloride		<10000	µg/Kg	10000	1.00
1,2-Dichloropropane		<10000	µg/Kg	10000	1.00
Trichloroethene (TCE)		<10000	µg/Kg	10000	1.00
Dibromomethane (methylene bromide)		<10000	µg/Kg	10000	1.00
Bromodichloromethane		<10000	µg/Kg	10000	1.00
2-Chloroethyl vinyl ether		<50000	µg/Kg	10000	5.00
cis-1,3-Dichloropropene		<10000	µg/Kg	10000	1.00
trans-1,3-Dichloropropene		<10000	µg/Kg	10000	1.00
Toluene		583000	µg/Kg	10000	1.00
1,1,2-Trichloroethane		<10000	µg/Kg	10000	1.00
1,3-Dichloropropane		<10000	µg/Kg	10000	1.00
Dibromochloromethane		<10000	µg/Kg	10000	1.00
1,2-Dibromoethane (EDB)		<10000	µg/Kg	10000	1.00
Tetrachloroethene (PCE)		<10000	µg/Kg	10000	1.00
Chlorobenzene		<10000	µg/Kg	10000	1.00
1,1,1,2-Tetrachloroethane		<10000	µg/Kg	10000	1.00
Ethylbenzene		210000	µg/Kg	10000	1.00
m,p-Xylene		442000	µg/Kg	10000	1.00
Bromoform		<10000	µg/Kg	10000	1.00
Styrene		<10000	µg/Kg	10000	1.00
o-Xylene		173000	µg/Kg	10000	1.00
1,1,2,2-Tetrachloroethane		<10000	µg/Kg	10000	1.00
2-Chlorotoluene		<10000	µg/Kg	10000	1.00
1,2,3-Trichloropropane		<10000	µg/Kg	10000	1.00
Isopropylbenzene		16300	µg/Kg	10000	1.00
Bromobenzene		<10000	µg/Kg	10000	1.00
n-Propylbenzene		45500	µg/Kg	10000	1.00
1,3,5-Trimethylbenzene		54000	µg/Kg	10000	1.00
tert-Butylbenzene		<10000	µg/Kg	10000	1.00
1,2,4-Trimethylbenzene		207000	µg/Kg	10000	1.00
1,4-Dichlorobenzene (para)		<10000	µg/Kg	10000	1.00
sec-Butylbenzene		<10000	µg/Kg	10000	1.00
1,3-Dichlorobenzene (meta)		<10000	µg/Kg	10000	1.00
p-Isopropyltoluene		<10000	µg/Kg	10000	1.00
4-Chlorotoluene		<10000	µg/Kg	10000	1.00
1,2-Dichlorobenzene (ortho)		<10000	µg/Kg	10000	1.00
n-Butylbenzene		<10000	µg/Kg	10000	1.00
1,2-Dibromo-3-chloropropane		<50000	µg/Kg	10000	5.00
1,2,3-Trichlorobenzene		<50000	µg/Kg	10000	5.00
1,2,4-Trichlorobenzene		<50000	µg/Kg	10000	5.00
Naphthalene		<50000	µg/Kg	10000	5.00

continued . . .

sample 33849 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobutadiene		<50000	µg/Kg	10000	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		48.2	µg/Kg	1	50.0	96	70 - 130
Toluene-d8		48.2	µg/Kg	1	50.0	96	70 - 130
4-Bromo?uorobenzene (4-BFB)		47.5	µg/Kg	1	50.0	95	70 - 130

Sample: 33850 - HLSF-0154-SB-018-(36.5-37)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9866	Date Analyzed:	2004-05-13	Analyzed By:	JG
Prep Batch:	8743	Date Prepared:	2004-05-13	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		12.8	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00

continued...

sample 33850 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		35.1	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		<10.0	µg/Kg	10	1.00
m,p-Xylene		13.5	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		<10.0	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		<10.0	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		<10.0	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		46.2	µg/Kg	1	50.0	92	70 - 130
Toluene-d8		48.2	µg/Kg	1	50.0	96	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.2	µg/Kg	1	50.0	92	70 - 130

Sample: 33851 - HLSF-0154-SB-018-(41.5-42)

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9866	Date Analyzed:	2004-05-13	Analyzed By:	JG
Prep Batch:	8743	Date Prepared:	2004-05-13	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	10	1.00
Dichlorodi?uoromethane		<10.0	µg/Kg	10	1.00
Chloromethane (methyl chloride)		<10.0	µg/Kg	10	1.00
Vinyl Chloride		<10.0	µg/Kg	10	1.00
Bromomethane (methyl bromide)		<50.0	µg/Kg	10	5.00
Chloroethane		<10.0	µg/Kg	10	1.00
Trichloro?uoromethane		<10.0	µg/Kg	10	1.00
Acetone		<100	µg/Kg	10	10.0
Iodomethane (methyl iodide)		<50.0	µg/Kg	10	5.00
Carbon Disul?de		<10.0	µg/Kg	10	1.00
Acrylonitrile		<10.0	µg/Kg	10	1.00
2-Butanone (MEK)		<50.0	µg/Kg	10	5.00
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	10	5.00
2-Hexanone		<50.0	µg/Kg	10	5.00
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10	10.0
1,1-Dichloroethene		<10.0	µg/Kg	10	1.00
Methylene chloride		<50.0	µg/Kg	10	5.00
MTBE		<10.0	µg/Kg	10	1.00
trans-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
1,1-Dichloroethane		<10.0	µg/Kg	10	1.00
cis-1,2-Dichloroethene		<10.0	µg/Kg	10	1.00
2,2-Dichloropropane		<10.0	µg/Kg	10	1.00
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	10	1.00
Chloroform		<10.0	µg/Kg	10	1.00
1,1,1-Trichloroethane		<10.0	µg/Kg	10	1.00
1,1-Dichloropropene		<10.0	µg/Kg	10	1.00
Benzene		38.0	µg/Kg	10	1.00
Carbon Tetrachloride		<10.0	µg/Kg	10	1.00
1,2-Dichloropropane		<10.0	µg/Kg	10	1.00
Trichloroethene (TCE)		<10.0	µg/Kg	10	1.00
Dibromomethane (methylene bromide)		<10.0	µg/Kg	10	1.00
Bromodichloromethane		<10.0	µg/Kg	10	1.00
2-Chloroethyl vinyl ether		<50.0	µg/Kg	10	5.00
cis-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
trans-1,3-Dichloropropene		<10.0	µg/Kg	10	1.00
Toluene		134	µg/Kg	10	1.00
1,1,2-Trichloroethane		<10.0	µg/Kg	10	1.00
1,3-Dichloropropane		<10.0	µg/Kg	10	1.00
Dibromochloromethane		<10.0	µg/Kg	10	1.00
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	10	1.00
Tetrachloroethene (PCE)		<10.0	µg/Kg	10	1.00
Chlorobenzene		<10.0	µg/Kg	10	1.00
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
Ethylbenzene		32.9	µg/Kg	10	1.00
m,p-Xylene		77.3	µg/Kg	10	1.00
Bromoform		<10.0	µg/Kg	10	1.00
Styrene		<10.0	µg/Kg	10	1.00
o-Xylene		34.3	µg/Kg	10	1.00
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	10	1.00
2-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2,3-Trichloropropane		<10.0	µg/Kg	10	1.00
Isopropylbenzene		<10.0	µg/Kg	10	1.00

continued . . .

sample 33851 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Bromobenzene		<10.0	µg/Kg	10	1.00
n-Propylbenzene		<10.0	µg/Kg	10	1.00
1,3,5-Trimethylbenzene		12.8	µg/Kg	10	1.00
tert-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2,4-Trimethylbenzene		56.5	µg/Kg	10	1.00
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	10	1.00
sec-Butylbenzene		<10.0	µg/Kg	10	1.00
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	10	1.00
p-Isopropyltoluene		<10.0	µg/Kg	10	1.00
4-Chlorotoluene		<10.0	µg/Kg	10	1.00
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	10	1.00
n-Butylbenzene		<10.0	µg/Kg	10	1.00
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	10	5.00
1,2,3-Trichlorobenzene		<50.0	µg/Kg	10	5.00
1,2,4-Trichlorobenzene		<50.0	µg/Kg	10	5.00
Naphthalene		<50.0	µg/Kg	10	5.00
Hexachlorobutadiene		<50.0	µg/Kg	10	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		46.4	µg/Kg	1	50.0	93	70 - 130
Toluene-d8		47.6	µg/Kg	1	50.0	95	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.8	µg/Kg	1	50.0	94	70 - 130

Method Blank (1) QC Batch: 9549

Parameter	Flag	Result	Units	RL
Bromochloromethane		<10.0	µg/Kg	1
Dichlorodi?uoromethane		<10.0	µg/Kg	1
Chloromethane (methyl chloride)		<10.0	µg/Kg	1
Vinyl Chloride		<10.0	µg/Kg	1
Bromomethane (methyl bromide)		<50.0	µg/Kg	5
Chloroethane		<10.0	µg/Kg	1
Trichloro?uoromethane		<10.0	µg/Kg	1
Acetone		<100	µg/Kg	10
Iodomethane (methyl iodide)		<50.0	µg/Kg	5
Carbon Disul?de		<10.0	µg/Kg	1
Acrylonitrile		<10.0	µg/Kg	1
2-Butanone (MEK)		<50.0	µg/Kg	5
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	5
2-Hexanone		<50.0	µg/Kg	5
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10
1,1-Dichloroethene		<10.0	µg/Kg	1
Methylene chloride		<50.0	µg/Kg	5
MTBE		<10.0	µg/Kg	1
trans-1,2-Dichloroethene		<10.0	µg/Kg	1
1,1-Dichloroethane		<10.0	µg/Kg	1
cis-1,2-Dichloroethene		<10.0	µg/Kg	1

continued...

method blank continued . . .

Parameter	Flag	Result	Units	RL
2,2-Dichloropropane		<10.0	µg/Kg	1
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	1
Chloroform		<10.0	µg/Kg	1
1,1,1-Trichloroethane		<10.0	µg/Kg	1
1,1-Dichloropropene		<10.0	µg/Kg.	1
Benzene		<10.0	µg/Kg	1
Carbon Tetrachloride		<10.0	µg/Kg	1
1,2-Dichloropropane		<10.0	µg/Kg	1
Trichloroethene (TCE)		<10.0	µg/Kg	1
Dibromomethane (methylene bromide)		<10.0	µg/Kg	1
Bromodichloromethane		<10.0	µg/Kg	1
2-Chloroethyl vinyl ether		<50.0	µg/Kg	5
cis-1,3-Dichloropropene		<10.0	µg/Kg	1
trans-1,3-Dichloropropene		<10.0	µg/Kg	1
Toluene		<10.0	µg/Kg	1
1,1,2-Trichloroethane		<10.0	µg/Kg	1
1,3-Dichloropropane		<10.0	µg/Kg	1
Dibromochloromethane		<10.0	µg/Kg	1
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	1
Tetrachloroethene (PCE)		<10.0	µg/Kg	1
Chlorobenzene		<10.0	µg/Kg	1
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	1
Ethylbenzene		<10.0	µg/Kg	1
m,p-Xylene		<10.0	µg/Kg	1
Bromoform		<10.0	µg/Kg	1
Styrene		<10.0	µg/Kg	1
o-Xylene		<10.0	µg/Kg	1
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	1
2-Chlorotoluene		<10.0	µg/Kg	1
1,2,3-Trichloropropane		<10.0	µg/Kg	1
Isopropylbenzene		<10.0	µg/Kg	1
Bromobenzene		<10.0	µg/Kg	1
n-Propylbenzene		<10.0	µg/Kg	1
1,3,5-Trimethylbenzene		<10.0	µg/Kg	1
tert-Butylbenzene		<10.0	µg/Kg	1
1,2,4-Trimethylbenzene		<10.0	µg/Kg	1
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	1
sec-Butylbenzene		<10.0	µg/Kg	1
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	1
p-Isopropyltoluene		<10.0	µg/Kg	1
4-Chlorotoluene		<10.0	µg/Kg	1
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	1
n-Butylbenzene		<10.0	µg/Kg	1
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	5
1,2,3-Trichlorobenzene		<50.0	µg/Kg	5
1,2,4-Trichlorobenzene		<50.0	µg/Kg	5
Naphthalene		<50.0	µg/Kg	5
Hexachlorobutadiene		<50.0	µg/Kg	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.9	µg/Kg	1	50.0	96	70 - 130

continued . . .

method blank continued . . .

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Toluene-d8		49.0	µg/Kg	1	50.0	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.6	µg/Kg	1	50.0	93	70 - 130

Method Blank (1) QC Batch: 9588

Parameter	Flag	Result	Units	RL
Bromochloromethane		<10.0	µg/Kg	1
Dichlorodi?uoromethane		<10.0	µg/Kg	1
Chloromethane (methyl chloride)		<10.0	µg/Kg	1
Vinyl Chloride		<10.0	µg/Kg	1
Bromomethane (methyl bromide)		<50.0	µg/Kg	5
Chloroethane		<10.0	µg/Kg	1
Trichloro?uoromethane		<10.0	µg/Kg	1
Acetone		<100	µg/Kg	10
Iodomethane (methyl iodide)		<50.0	µg/Kg	5
Carbon Disul?de		<10.0	µg/Kg	1
Acrylonitrile		<10.0	µg/Kg	1
2-Butanone (MEK)		<50.0	µg/Kg	5
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	5
2-Hexanone		<50.0	µg/Kg	5
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10
1,1-Dichloroethene		<10.0	µg/Kg	1
Methylene chloride		<50.0	µg/Kg	5
MTBE		<10.0	µg/Kg	1
trans-1,2-Dichloroethene		<10.0	µg/Kg	1
1,1-Dichloroethane		<10.0	µg/Kg	1
cis-1,2-Dichloroethene		<10.0	µg/Kg	1
2,2-Dichloropropane		<10.0	µg/Kg	1
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	1
Chloroform		<10.0	µg/Kg	1
1,1,1-Trichloroethane		<10.0	µg/Kg	1
1,1-Dichloropropene		<10.0	µg/Kg	1
Benzene		<10.0	µg/Kg	1
Carbon Tetrachloride		<10.0	µg/Kg	1
1,2-Dichloropropane		<10.0	µg/Kg	1
Trichloroethene (TCE)		<10.0	µg/Kg	1
Dibromomethane (methylene bromide)		<10.0	µg/Kg	1
Bromodichloromethane		<10.0	µg/Kg	1
2-Chloroethyl vinyl ether		<50.0	µg/Kg	5
cis-1,3-Dichloropropene		<10.0	µg/Kg	1
trans-1,3-Dichloropropene		<10.0	µg/Kg	1
Toluene		<10.0	µg/Kg	1
1,1,2-Trichloroethane		<10.0	µg/Kg	1
1,3-Dichloropropane		<10.0	µg/Kg	1
Dibromochloromethane		<10.0	µg/Kg	1
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	1
Tetrachloroethene (PCE)		<10.0	µg/Kg	1
Chlorobenzene		<10.0	µg/Kg	1
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	1

continued . . .

method blank continued . . .

Parameter	Flag	Result	Units	RL
Ethylbenzene		<10.0	µg/Kg	1
m,p-Xylene		<10.0	µg/Kg	1
Bromoform		<10.0	µg/Kg	1
Styrene		<10.0	µg/Kg	1
o-Xylene		<10.0	µg/Kg	1
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	1
2-Chlorotoluene		<10.0	µg/Kg	1
1,2,3-Trichloropropane		<10.0	µg/Kg	1
Isopropylbenzene		<10.0	µg/Kg	1
Bromobenzene		<10.0	µg/Kg	1
n-Propylbenzene		<10.0	µg/Kg	1
1,3,5-Trimethylbenzene		<10.0	µg/Kg	1
tert-Butylbenzene		<10.0	µg/Kg	1
1,2,4-Trimethylbenzene		<10.0	µg/Kg	1
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	1
sec-Butylbenzene		<10.0	µg/Kg	1
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	1
p-Isopropyltoluene		<10.0	µg/Kg	1
4-Chlorotoluene		<10.0	µg/Kg	1
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	1
n-Butylbenzene		<10.0	µg/Kg	1
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	5
1,2,3-Trichlorobenzene		<50.0	µg/Kg	5
1,2,4-Trichlorobenzene		<50.0	µg/Kg	5
Naphthalene		<50.0	µg/Kg	5
Hexachlorobutadiene		<50.0	µg/Kg	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		47.9	µg/Kg	1	50.0	96	70 - 130
Toluene-d8		49.0	µg/Kg	1	50.0	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.6	µg/Kg	1	50.0	93	70 - 130

Method Blank (1) QC Batch: 9783

Parameter	Flag	Result	Units	RL
Bromochloromethane		<10.0	µg/Kg	1
Dichlorodi?uoromethane		<10.0	µg/Kg	1
Chloromethane (methyl chloride)		<10.0	µg/Kg	1
Vinyl Chloride		<10.0	µg/Kg	1
Bromomethane (methyl bromide)		<50.0	µg/Kg	5
Chloroethane		<10.0	µg/Kg	1
Trichloro?uoromethane		<10.0	µg/Kg	1
Acetone		<100	µg/Kg	10
Iodomethane (methyl iodide)		<50.0	µg/Kg	5
Carbon Disul?de		<10.0	µg/Kg	1
Acrylonitrile		<10.0	µg/Kg	1
2-Butanone (MEK)		<50.0	µg/Kg	5
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	5

continued . . .

method blank continued . . .

Parameter	Flag	Result	Units	RL
2-Hexanone		<50.0	µg/Kg	5
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10
1,1-Dichloroethene		<10.0	µg/Kg	1
Methylene chloride		<50.0	µg/Kg	5
MTBE		<10.0	µg/Kg	1
trans-1,2-Dichloroethene		<10.0	µg/Kg	1
1,1-Dichloroethane		<10.0	µg/Kg	1
cis-1,2-Dichloroethene		<10.0	µg/Kg	1
2,2-Dichloropropane		<10.0	µg/Kg	1
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	1
Chloroform		<10.0	µg/Kg	1
1,1,1-Trichloroethane		<10.0	µg/Kg	1
1,1-Dichloropropene		<10.0	µg/Kg	1
Benzene		<10.0	µg/Kg	1
Carbon Tetrachloride		<10.0	µg/Kg	1
1,2-Dichloropropane		<10.0	µg/Kg	1
Trichloroethene (TCE)		<10.0	µg/Kg	1
Dibromomethane (methylene bromide)		<10.0	µg/Kg	1
Bromodichloromethane		<10.0	µg/Kg	1
2-Chloroethyl vinyl ether		<50.0	µg/Kg	5
cis-1,3-Dichloropropene		<10.0	µg/Kg	1
trans-1,3-Dichloropropene		<10.0	µg/Kg	1
Toluene		<10.0	µg/Kg	1
1,1,2-Trichloroethane		<10.0	µg/Kg	1
1,3-Dichloropropane		<10.0	µg/Kg	1
Dibromochloromethane		<10.0	µg/Kg	1
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	1
Tetrachloroethene (PCE)		<10.0	µg/Kg	1
Chlorobenzene		<10.0	µg/Kg	1
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	1
Ethylbenzene		<10.0	µg/Kg	1
m,p-Xylene		<10.0	µg/Kg	1
Bromoform		<10.0	µg/Kg	1
Styrene		<10.0	µg/Kg	1
o-Xylene		<10.0	µg/Kg	1
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	1
2-Chlorotoluene		<10.0	µg/Kg	1
1,2,3-Trichloropropane		<10.0	µg/Kg	1
Isopropylbenzene		<10.0	µg/Kg	1
Bromobenzene		<10.0	µg/Kg	1
n-Propylbenzene		<10.0	µg/Kg	1
1,3,5-Trimethylbenzene		<10.0	µg/Kg	1
tert-Butylbenzene		<10.0	µg/Kg	1
1,2,4-Trimethylbenzene		<10.0	µg/Kg	1
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	1
sec-Butylbenzene		<10.0	µg/Kg	1
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	1
p-Isopropyltoluene		<10.0	µg/Kg	1
4-Chlorotoluene		<10.0	µg/Kg	1
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	1
n-Butylbenzene		<10.0	µg/Kg	1
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	5

continued . . .

method blank continued . . .

Parameter	Flag	Result	Units	RL
1,2,3-Trichlorobenzene		<50.0	µg/Kg	5
1,2,4-Trichlorobenzene		<50.0	µg/Kg	5
Naphthalene		<50.0	µg/Kg	5
Hexachlorobutadiene		<50.0	µg/Kg	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		49.4	µg/Kg	1	50.0	99	70 - 130
Toluene-d8		49.8	µg/Kg	1	50.0	100	70 - 130
4-Bromo?uorobenzene (4-BFB)		45.7	µg/Kg	1	50.0	91	70 - 130

Method Blank (1) QC Batch: 9784

Parameter	Flag	Result	Units	RL
Bromochloromethane		<10.0	µg/Kg	1
Dichlorodi?uoromethane		<10.0	µg/Kg	1
Chloromethane (methyl chloride)		<10.0	µg/Kg	1
Vinyl Chloride		<10.0	µg/Kg	1
Bromomethane (methyl bromide)		<50.0	µg/Kg	5
Chloroethane		<10.0	µg/Kg	1
Trichloro?uoromethane		<10.0	µg/Kg	1
Acetone		<100	µg/Kg	10
Iodomethane (methyl iodide)		<50.0	µg/Kg	5
Carbon Disul?de		<10.0	µg/Kg	1
Acrylonitrile		<10.0	µg/Kg	1
2-Butanone (MEK)		<50.0	µg/Kg	5
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	5
2-Hexanone		<50.0	µg/Kg	5
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10
1,1-Dichloroethene		<10.0	µg/Kg	1
Methylene chloride		<50.0	µg/Kg	5
MTBE		<10.0	µg/Kg	1
trans-1,2-Dichloroethene		<10.0	µg/Kg	1
1,1-Dichloroethane		<10.0	µg/Kg	1
cis-1,2-Dichloroethene		<10.0	µg/Kg	1
2,2-Dichloropropane		<10.0	µg/Kg	1
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	1
Chloroform		<10.0	µg/Kg	1
1,1,1-Trichloroethane		<10.0	µg/Kg	1
1,1-Dichloropropene		<10.0	µg/Kg	1
Benzene		<10.0	µg/Kg	1
Carbon Tetrachloride		<10.0	µg/Kg	1
1,2-Dichloropropane		<10.0	µg/Kg	1
Trichloroethene (TCE)		<10.0	µg/Kg	1
Dibromomethane (methylene bromide)		<10.0	µg/Kg	1
Bromodichloromethane		<10.0	µg/Kg	1
2-Chloroethyl vinyl ether		<50.0	µg/Kg	5
cis-1,3-Dichloropropene		<10.0	µg/Kg	1
trans-1,3-Dichloropropene		<10.0	µg/Kg	1

continued . . .

method blank continued . . .

Parameter	Flag	Result	Units	RL
Toluene		<10.0	µg/Kg	1
1,1,2-Trichloroethane		<10.0	µg/Kg	1
1,3-Dichloropropane		<10.0	µg/Kg	1
Dibromochloromethane		<10.0	µg/Kg	1
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	1
Tetrachloroethene (PCE)		<10.0	µg/Kg	1
Chlorobenzene		<10.0	µg/Kg	1
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	1
Ethylbenzene		<10.0	µg/Kg	1
m,p-Xylene		<10.0	µg/Kg	1
Bromoform		<10.0	µg/Kg	1
Styrene		<10.0	µg/Kg	1
o-Xylene		<10.0	µg/Kg	1
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	1
2-Chlorotoluene		<10.0	µg/Kg	1
1,2,3-Trichloropropane		<10.0	µg/Kg	1
Isopropylbenzene		<10.0	µg/Kg	1
Bromobenzene		<10.0	µg/Kg	1
n-Propylbenzene		<10.0	µg/Kg	1
1,3,5-Trimethylbenzene		<10.0	µg/Kg	1
tert-Butylbenzene		<10.0	µg/Kg	1
1,2,4-Trimethylbenzene		<10.0	µg/Kg	1
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	1
sec-Butylbenzene		<10.0	µg/Kg	1
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	1
p-Isopropyltoluene		<10.0	µg/Kg	1
4-Chlorotoluene		<10.0	µg/Kg	1
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	1
n-Butylbenzene		<10.0	µg/Kg	1
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	5
1,2,3-Trichlorobenzene		<50.0	µg/Kg	5
1,2,4-Trichlorobenzene		<50.0	µg/Kg	5
Naphthalene		<50.0	µg/Kg	5
Hexachlorobutadiene		<50.0	µg/Kg	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		49.4	µg/Kg	1	50.0	99	70 - 130
Toluene-d8		49.8	µg/Kg	1	50.0	100	70 - 130
4-Bromo?uorobenzene (4-BFB)		45.7	µg/Kg	1	50.0	91	70 - 130

Method Blank (1) QC Batch: 9866

Parameter	Flag	Result	Units	RL
Bromochloromethane		<10.0	µg/Kg	1
Dichlorodi?uoromethane		<10.0	µg/Kg	1
Chloromethane (methyl chloride)		<10.0	µg/Kg	1
Vinyl Chloride		<10.0	µg/Kg	1
Bromomethane (methyl bromide)		<50.0	µg/Kg	5

continued . . .

method blank continued . . .

Parameter	Flag	Result	Units	RL
Chloroethane		<10.0	µg/Kg	1
Trichloro?uoromethane		<10.0	µg/Kg	1
Acetone		<100	µg/Kg	10
Iodomethane (methyl iodide)		<50.0	µg/Kg	5
Carbon Disul?de		<10.0	µg/Kg	1
Acrylonitrile		<10.0	µg/Kg	1
2-Butanone (MEK)		<50.0	µg/Kg	5
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	5
2-Hexanone		<50.0	µg/Kg	5
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10
1,1-Dichloroethene		<10.0	µg/Kg	1
Methylene chloride		<50.0	µg/Kg	5
MTBE		<10.0	µg/Kg	1
trans-1,2-Dichloroethene		<10.0	µg/Kg	1
1,1-Dichloroethane		<10.0	µg/Kg	1
cis-1,2-Dichloroethene		<10.0	µg/Kg	1
2,2-Dichloropropane		<10.0	µg/Kg	1
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	1
Chloroform		<10.0	µg/Kg	1
1,1,1-Trichloroethane		<10.0	µg/Kg	1
1,1-Dichloropropene		<10.0	µg/Kg	1
Benzene		<10.0	µg/Kg	1
Carbon Tetrachloride		<10.0	µg/Kg	1
1,2-Dichloropropane		<10.0	µg/Kg	1
Trichloroethene (TCE)		<10.0	µg/Kg	1
Dibromomethane (methylene bromide)		<10.0	µg/Kg	1
Bromodichloromethane		<10.0	µg/Kg	1
2-Chloroethyl vinyl ether		<50.0	µg/Kg	5
cis-1,3-Dichloropropene		<10.0	µg/Kg	1
trans-1,3-Dichloropropene		<10.0	µg/Kg	1
Toluene		<10.0	µg/Kg	1
1,1,2-Trichloroethane		<10.0	µg/Kg	1
1,3-Dichloropropane		<10.0	µg/Kg	1
Dibromochloromethane		<10.0	µg/Kg	1
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	1
Tetrachloroethene (PCE)		<10.0	µg/Kg	1
Chlorobenzene		<10.0	µg/Kg	1
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	1
Ethylbenzene		<10.0	µg/Kg	1
m,p-Xylene		<10.0	µg/Kg	1
Bromoform		<10.0	µg/Kg	1
Styrene		<10.0	µg/Kg	1
o-Xylene		<10.0	µg/Kg	1
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	1
2-Chlorotoluene		<10.0	µg/Kg	1
1,2,3-Trichloropropane		<10.0	µg/Kg	1
Isopropylbenzene		<10.0	µg/Kg	1
Bromobenzene		<10.0	µg/Kg	1
n-Propylbenzene		<10.0	µg/Kg	1
1,3,5-Trimethylbenzene		<10.0	µg/Kg	1
tert-Butylbenzene		<10.0	µg/Kg	1
1,2,4-Trimethylbenzene		<10.0	µg/Kg	1

continued . . .

method blank continued . . .

Parameter	Flag	Result	Units	RL
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	1
sec-Butylbenzene		<10.0	µg/Kg	1
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	1
p-Isopropyltoluene		<10.0	µg/Kg	1
4-Chlorotoluene		<10.0	µg/Kg	1
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	1
n-Butylbenzene		<10.0	µg/Kg	1
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	5
1,2,3-Trichlorobenzene		<50.0	µg/Kg	5
1,2,4-Trichlorobenzene		<50.0	µg/Kg	5
Naphthalene		<50.0	µg/Kg	5
Hexachlorobutadiene		<50.0	µg/Kg	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		45.8	µg/Kg	1	50.0	92	70 - 130
Toluene-d8		48.3	µg/Kg	1	50.0	97	70 - 130
4-Bromo?uorobenzene (4-BFB)		46.4	µg/Kg	1	50.0	93	70 - 130

Method Blank (1) QC Batch: 9942

Parameter	Flag	Result	Units	RL
Bromochloromethane		<10.0	µg/Kg	1
Dichlorodi?uoromethane		<10.0	µg/Kg	1
Chloromethane (methyl chloride)		<10.0	µg/Kg	1
Vinyl Chloride		<10.0	µg/Kg	1
Bromomethane (methyl bromide)		<50.0	µg/Kg	5
Chloroethane		<10.0	µg/Kg	1
Trichloro?uoromethane		<10.0	µg/Kg	1
Acetone		<100	µg/Kg	10
Iodomethane (methyl iodide)		<50.0	µg/Kg	5
Carbon Disul?de		<10.0	µg/Kg	1
Acrylonitrile		<10.0	µg/Kg	1
2-Butanone (MEK)		<50.0	µg/Kg	5
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	5
2-Hexanone		<50.0	µg/Kg	5
trans 1,4-Dichloro-2-butene		<100	µg/Kg	10
1,1-Dichloroethene		<10.0	µg/Kg	1
Methylene chloride		<50.0	µg/Kg	5
MTBE		<10.0	µg/Kg	1
trans-1,2-Dichloroethene		<10.0	µg/Kg	1
1,1-Dichloroethane		<10.0	µg/Kg	1
cis-1,2-Dichloroethene		<10.0	µg/Kg	1
2,2-Dichloropropane		<10.0	µg/Kg	1
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	1
Chloroform		<10.0	µg/Kg	1
1,1,1-Trichloroethane		<10.0	µg/Kg	1
1,1-Dichloropropene		<10.0	µg/Kg	1
Benzene		<10.0	µg/Kg	1

continued . . .

method blank continued . . .

Parameter	Flag	Result	Units	RL
Carbon Tetrachloride		<10.0	µg/Kg	1
1,2-Dichloropropane		<10.0	µg/Kg	1
Trichloroethene (TCE)		<10.0	µg/Kg	1
Dibromomethane (methylene bromide)		<10.0	µg/Kg	1
Bromodichloromethane		<10.0	µg/Kg	1
2-Chloroethyl vinyl ether		<50.0	µg/Kg	5
cis-1,3-Dichloropropene		<10.0	µg/Kg	1
trans-1,3-Dichloropropene		<10.0	µg/Kg	1
Toluene		<10.0	µg/Kg	1
1,1,2-Trichloroethane		<10.0	µg/Kg	1
1,3-Dichloropropane		<10.0	µg/Kg	1
Dibromochloromethane		<10.0	µg/Kg	1
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	1
Tetrachloroethene (PCE)		<10.0	µg/Kg	1
Chlorobenzene		<10.0	µg/Kg	1
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	1
Ethylbenzene		<10.0	µg/Kg	1
m,p-Xylene		<10.0	µg/Kg	1
Bromoform		<10.0	µg/Kg	1
Styrene		<10.0	µg/Kg	1
o-Xylene		<10.0	µg/Kg	1
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	1
2-Chlorotoluene		<10.0	µg/Kg	1
1,2,3-Trichloropropane		<10.0	µg/Kg	1
Isopropylbenzene		<10.0	µg/Kg	1
Bromobenzene		<10.0	µg/Kg	1
n-Propylbenzene		<10.0	µg/Kg	1
1,3,5-Trimethylbenzene		<10.0	µg/Kg	1
tert-Butylbenzene		<10.0	µg/Kg	1
1,2,4-Trimethylbenzene		<10.0	µg/Kg	1
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	1
sec-Butylbenzene		<10.0	µg/Kg	1
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	1
p-Isopropyltoluene		<10.0	µg/Kg	1
4-Chlorotoluene		<10.0	µg/Kg	1
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	1
n-Butylbenzene		<10.0	µg/Kg	1
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	5
1,2,3-Trichlorobenzene		<50.0	µg/Kg	5
1,2,4-Trichlorobenzene		<50.0	µg/Kg	5
Naphthalene		<50.0	µg/Kg	5
Hexachlorobutadiene		<50.0	µg/Kg	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromo?uoromethane		53.1	µg/Kg	1	50.0	106	70 - 130
Toluene-d8		44.3	µg/Kg	1	50.0	89	70 - 130
4-Bromo?uorobenzene (4-BFB)		48.4	µg/Kg	1	50.0	97	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 9549

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	955	984	µg/Kg	10	100	<2.44	96	3	74.8 - 118	20
Benzene	927	948	µg/Kg	10	100	<1.84	93	2	87.9 - 112	20
Trichloroethene (TCE)	954	967	µg/Kg	10	100	<7.08	95	1	78.9 - 118	20
Toluene	885	904	µg/Kg	10	100	1.9	88	2	86.6 - 111	20
Chlorobenzene	907	925	µg/Kg	10	100	<1.45	91	2	89.9 - 108	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromo?uoromethane	49.9	50.5	µg/Kg	1	50.0	100	101	70 - 130
Toluene-d8	49.5	49.9	µg/Kg	1	50.0	99	100	70 - 130
4-Bromo?uorobenzene (4-BFB)	47.8	47.7	µg/Kg	1	50.0	96	95	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 9588

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	1030	1010	µg/Kg	10	100	<2.44	103	2	74.8 - 118	20
Benzene	959	948	µg/Kg	10	100	<1.84	96	1	87.9 - 112	20
Trichloroethene (TCE)	956	950	µg/Kg	10	100	<7.08	96	1	78.9 - 118	20
Toluene	904	902	µg/Kg	10	100	1.9	90	0	86.6 - 111	20
Chlorobenzene	928	919	µg/Kg	10	100	<1.45	93	1	89.9 - 108	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromo?uoromethane	50.0	51.0	µg/Kg	1	50.0	100	102	70 - 130
Toluene-d8	49.2	49.5	µg/Kg	1	50.0	98	99	70 - 130
4-Bromo?uorobenzene (4-BFB)	47.4	46.5	µg/Kg	1	50.0	95	93	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 9783

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	1020	1020	µg/Kg	10	100	<2.44	102	0	74.8 - 118	20
Benzene	964	975	µg/Kg	10	100	<1.84	96	1	87.9 - 112	20
Trichloroethene (TCE)	968	980	µg/Kg	10	100	<7.08	97	1	78.9 - 118	20
Toluene	928	940	µg/Kg	10	100	2.1	93	1	86.6 - 111	20
Chlorobenzene	941	942	µg/Kg	10	100	<1.45	94	0	89.9 - 108	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromo?uoromethane	52.1	52.3	µg/Kg	1	50.0	104	105	70 - 130
Toluene-d8	50.2	49.4	µg/Kg	1	50.0	100	99	70 - 130
4-Bromo?uorobenzene (4-BFB)	46.7	45.5	µg/Kg	1	50.0	93	91	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 9784

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	916	905	µg/Kg	10	100	<2.44	92	1	74.8 - 118	20
Benzene	926	925	µg/Kg	10	100	<1.84	93	0	87.9 - 112	20
Trichloroethene (TCE)	953	953	µg/Kg	10	100	<7.08	95	0	78.9 - 118	20
Toluene	898	893	µg/Kg	10	100	2.1	90	0	86.6 - 111	20
Chlorobenzene	896	905	µg/Kg	10	100	<1.45	90	1	89.9 - 108	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromo?uoromethane	47.5	47.9	µg/Kg	1	50.0	95	96	70 - 130
Toluene-d8	48.1	48.9	µg/Kg	1	50.0	96	98	70 - 130
4-Bromo?uorobenzene (4-BFB)	47.5	47.8	µg/Kg	1	50.0	95	96	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 9866

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	945	943	µg/Kg	10	100	<2.44	94	0	74.8 - 118	20
Benzene	925	926	µg/Kg	10	100	<1.84	92	0	87.9 - 112	20
Trichloroethene (TCE)	938	940	µg/Kg	10	100	<7.08	94	0	78.9 - 118	20
Toluene	891	895	µg/Kg	10	100	2.3	89	0	86.6 - 111	20
Chlorobenzene	895	910	µg/Kg	10	100	<1.45	90	2	89.9 - 108	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromo?uoromethane	48.1	49.5	µg/Kg	1	50.0	96	99	70 - 130
Toluene-d8	48.8	48.6	µg/Kg	1	50.0	98	97	70 - 130
4-Bromo?uorobenzene (4-BFB)	47.1	47.5	µg/Kg	1	50.0	94	95	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 9942

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	1020	1010	µg/Kg	10	100	<2.44	102	1	74.8 - 118	20
Benzene	1020	1020	µg/Kg	10	100	<1.84	102	0	87.9 - 112	20
Trichloroethene (TCE)	970	970	µg/Kg	10	100	<7.08	97	0	78.9 - 118	20
Toluene	1000	990	µg/Kg	10	100	1.9	100	1	86.6 - 111	20
Chlorobenzene	940	940	µg/Kg	10	100	<1.45	94	0	89.9 - 108	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromo?uoromethane	55.2	54.8	µg/Kg	1	50.0	110	110	70 - 130
Toluene-d8	44.8	44.4	µg/Kg	1	50.0	90	89	70 - 130
4-Bromo?uorobenzene (4-BFB)	49.1	48.9	µg/Kg	1	50.0	98	98	70 - 130

Matrix Spike (MS-1) QC Batch: 9549

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	999	1020	µg/Kg	10	100	<2.44	100	2	82.5 - 117	20
Benzene	946	962	µg/Kg	10	100	<1.84	95	2	89 - 115	20
Trichloroethene (TCE)	949	959	µg/Kg	10	100	<7.08	95	1	81.6 - 113	20
Toluene	906	918	µg/Kg	10	100	<1.50	91	1	82.1 - 116	20
Chlorobenzene	915	928	µg/Kg	10	100	<1.45	92	1	81.9 - 119	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	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Dibromo?uoromethane	51.4	51.5	µg/Kg	1	50	103	103	70 - 130
Toluene-d8	49.5	48.8	µg/Kg	1	50	99	98	70 - 130
4-Bromo?uorobenzene (4-BFB)	46.9	46.7	µg/Kg	1	50	94	93	70 - 130

Matrix Spike (MS-1) QC Batch: 9588

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	1000	1010	µg/Kg	10	100	<2.44	100	1	82.5 - 117	20
Benzene	946	944	µg/Kg	10	100	<1.84	95	0	89 - 115	20
Trichloroethene (TCE)	940	943	µg/Kg	10	100	<7.08	94	0	81.6 - 113	20
Toluene	904	908	µg/Kg	10	100	<1.50	90	0	82.1 - 116	20
Chlorobenzene	918	910	µg/Kg	10	100	<1.45	92	1	81.9 - 119	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	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Dibromo?uoromethane	52.9	53.3	µg/Kg	1	50	106	107	70 - 130
Toluene-d8	49.9	49.6	µg/Kg	1	50	100	99	70 - 130
4-Bromo?uorobenzene (4-BFB)	45.9	45.2	µg/Kg	1	50	92	90	70 - 130

Matrix Spike (MS-1) QC Batch: 9783

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	927	916	µg/Kg	10	100	<2.44	93	1	82.5 - 117	20
Benzene	936	922	µg/Kg	10	100	<1.84	94	2	89 - 115	20
Trichloroethene (TCE)	963	945	µg/Kg	10	100	<7.08	96	2	81.6 - 113	20
Toluene	903	893	µg/Kg	10	100	<1.50	90	1	82.1 - 116	20
Chlorobenzene	905	892	µg/Kg	10	100	<1.45	90	1	81.9 - 119	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	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Dibromo?uoromethane	48.6	49.2	µg/Kg	1	50	97	98	70 - 130
Toluene-d8	49.2	48.7	µg/Kg	1	50	98	97	70 - 130
4-Bromo?uorobenzene (4-BFB)	46.7	47.1	µg/Kg	1	50	93	94	70 - 130

Matrix Spike (MS-1) QC Batch: 9784

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	898	897	µg/Kg	10	100	<2.44	90	0	82.5 - 117	20
Benzene	914	915	µg/Kg	10	100	<1.84	91	0	89 - 115	20
Trichloroethene (TCE)	936	940	µg/Kg	10	100	<7.08	94	0	81.6 - 113	20
Toluene	879	887	µg/Kg	10	100	<1.50	88	1	82.1 - 116	20
Chlorobenzene	892	892	µg/Kg	10	100	<1.45	89	0	81.9 - 119	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	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Dibromo?uoromethane	47.8	48.1	µg/Kg	1	50	96	96	70 - 130
Toluene-d8	48.4	48.8	µg/Kg	1	50	97	98	70 - 130
4-Bromo?uorobenzene (4-BFB)	47.1	46.9	µg/Kg	1	50	94	94	70 - 130

Matrix Spike (MS-1) QC Batch: 9866

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	860	872	µg/Kg	10	100	<2.44	86	1	82.5 - 117	20
Benzene [1]	884	903	µg/Kg	10	100	<1.84	88	2	89 - 115	20
Trichloroethene (TCE)	913	929	µg/Kg	10	100	<7.08	91	2	81.6 - 113	20
Toluene	859	873	µg/Kg	10	100	<1.50	86	2	82.1 - 116	20
Chlorobenzene	872	886	µg/Kg	10	100	<1.45	87	2	81.9 - 119	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	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Dibromo?uoromethane	48.1	48.5	µg/Kg	1	50	96	97	70 - 130
Toluene-d8	48.8	49.0	µg/Kg	1	50	98	98	70 - 130
4-Bromo?uorobenzene (4-BFB)	47.1	46.7	µg/Kg	1	50	94	93	70 - 130

Matrix Spike (MS-1) QC Batch: 9942

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	990	990	µg/Kg	10	100	<2.44	99	0	82.5 - 117	20
Benzene	990	970	µg/Kg	10	100	<1.84	99	2	89 - 115	20
Trichloroethene (TCE)	950	940	µg/Kg	10	100	<7.08	95	1	81.6 - 113	20
Toluene	990	970	µg/Kg	10	100	<1.50	99	2	82.1 - 116	20
Chlorobenzene	920	900	µg/Kg	10	100	<1.45	92	2	81.9 - 119	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	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Dibromo?uoromethane	52.2	51.9	µg/Kg	1	50	104	104	70 - 130
Toluene-d8	44.9	44.6	µg/Kg	1	50	90	89	70 - 130
4-Bromo?uorobenzene (4-BFB)	48.6	48.2	µg/Kg	1	50	97	96	70 - 130

Standard (CCV-1) QC Batch: 9549

[1] low recovery due to matrix. Lcs/Lcsd were within acceptable limits.

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/Kg	50.0	46.0	92	80 - 120	2004-05-11
1,1-Dichloroethene		µg/Kg	50.0	48.3	97	80 - 120	2004-05-11
Chloroform		µg/Kg	50.0	47.1	94	80 - 120	2004-05-11
1,2-Dichloropropane		µg/Kg	50.0	48.0	96	80 - 120	2004-05-11
Toluene		µg/Kg	50.0	47.7	95	80 - 120	2004-05-11
Chlorobenzene		µg/Kg	50.0	47.7	95	80 - 120	2004-05-11
Ethylbenzene		µg/Kg	50.0	49.3	99	80 - 120	2004-05-11

Standard (CCV-1) QC Batch: 9588

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/Kg	50.0	44.0	88	80 - 120	2004-05-11
1,1-Dichloroethene		µg/Kg	50.0	48.7	97	80 - 120	2004-05-11
Chloroform		µg/Kg	50.0	47.6	95	80 - 120	2004-05-11
1,2-Dichloropropane		µg/Kg	50.0	48.4	97	80 - 120	2004-05-11
Toluene		µg/Kg	50.0	48.1	96	80 - 120	2004-05-11
Chlorobenzene		µg/Kg	50.0	48.1	96	80 - 120	2004-05-11
Ethylbenzene		µg/Kg	50.0	49.4	99	80 - 120	2004-05-11

Standard (CCV-1) QC Batch: 9783

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/Kg	50.0	45.3	91	80 - 120	2004-05-12
1,1-Dichloroethene		µg/Kg	50.0	49.4	99	80 - 120	2004-05-12
Chloroform		µg/Kg	50.0	49.0	98	80 - 120	2004-05-12
1,2-Dichloropropane		µg/Kg	50.0	50.0	100	80 - 120	2004-05-12
Toluene		µg/Kg	50.0	49.5	99	80 - 120	2004-05-12
Chlorobenzene		µg/Kg	50.0	48.5	97	80 - 120	2004-05-12
Ethylbenzene		µg/Kg	50.0	50.8	102	80 - 120	2004-05-12

Standard (CCV-1) QC Batch: 9784

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/Kg	50.0	42.7	85	80 - 120	2004-05-12
1,1-Dichloroethene		µg/Kg	50.0	46.6	93	80 - 120	2004-05-12
Chloroform		µg/Kg	50.0	46.8	94	80 - 120	2004-05-12
1,2-Dichloropropane		µg/Kg	50.0	47.1	94	80 - 120	2004-05-12
Toluene		µg/Kg	50.0	47.4	95	80 - 120	2004-05-12
Chlorobenzene		µg/Kg	50.0	46.9	94	80 - 120	2004-05-12
Ethylbenzene		µg/Kg	50.0	48.4	97	80 - 120	2004-05-12

Standard (CCV-1) QC Batch: 9866

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/Kg	50.0	40.8	82	80 - 120	2004-05-13
1,1-Dichloroethene		µg/Kg	50.0	44.9	90	80 - 120	2004-05-13
Chloroform		µg/Kg	50.0	44.9	90	80 - 120	2004-05-13
1,2-Dichloropropane		µg/Kg	50.0	45.6	91	80 - 120	2004-05-13
Toluene		µg/Kg	50.0	46.4	93	80 - 120	2004-05-13
Chlorobenzene		µg/Kg	50.0	46.1	92	80 - 120	2004-05-13
Ethylbenzene		µg/Kg	50.0	47.9	96	80 - 120	2004-05-13

Standard (CCV-1) QC Batch: 9942

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/Kg	50.0	55.0	110	80 - 120	2004-05-12
1,1-Dichloroethene		µg/Kg	50.0	59.0	118	80 - 120	2004-05-12
Chloroform		µg/Kg	50.0	51.0	102	80 - 120	2004-05-12
1,2-Dichloropropane		µg/Kg	50.0	51.0	102	80 - 120	2004-05-12
Toluene		µg/Kg	50.0	53.0	106	80 - 120	2004-05-12
Chlorobenzene		µg/Kg	50.0	49.0	98	80 - 120	2004-05-12
Ethylbenzene		µg/Kg	50.0	47.0	94	80 - 120	2004-05-12

Analytical and Quality Control Report

Rene Rodriguez
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: May 28, 2004

Work Order: 4051107

Project Name: HELSTE TSA Fuel Spill Investigation
Project Number: 2080.414

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
33541	HLSF-0154-SB-010-(6.5-7)	soil	2004-05-10	08:30	2004-05-11
33542	HLSF-0154-SB-010-(11.5-12)	soil	2004-05-10	08:45	2004-05-11
33543	HLSF-0154-SB-010-(16.5-17)	soil	2004-05-10	08:55	2004-05-11
33544	HLSF-0154-SB-010-(21.5-22)	soil	2004-05-10	09:00	2004-05-11
33545	HLSF-0154-SB-010-(31.5-32)	soil	2004-05-10	09:32	2004-05-11
33546	HLSF-0154-SB-010-(26.5-27)	soil	2004-05-10	09:15	2004-05-11
33547	HLSF-0154-SB-110-(26.5-27)	soil	2004-05-10	09:15	2004-05-11
33548	HLSF-0154-SB-010-(36.5-37)	soil	2004-05-10	09:40	2004-05-11
33549	HLSF-0154-SB-010-(41.5-42)	soil	2004-05-10	09:50	2004-05-11
33550	HLSF-0154-SB-011-(6.5-7.0)	soil	2004-05-10	10:40	2004-05-11
33551	HLSF-0154-SB-011-(11.5-12.0)	soil	2004-05-10	10:45	2004-05-11
33552	HLSF-0154-SB-011-(16.5-17.0)	soil	2004-05-10	11:00	2004-05-11
33553	HLSF-0154-SB-011-(21.5-22)	soil	2004-05-10	11:10	2004-05-11
33554	HLSF-0154-SB-111-(21.5-22)	soil	2004-05-10	11:10	2004-05-11
33555	HLSF-0154-SB-011-(26.5-27)	soil	2004-05-10	11:20	2004-05-11
33556	HLSF-0154-SB-011-(31.5-32)	soil	2004-05-10	11:35	2004-05-11
33557	HLSF-0154-SB-011-(36.5-37)	soil	2004-05-10	11:45	2004-05-11
33558	HLSF-0154-SB-011-(41.5-42)	soil	2004-05-10	11:56	2004-05-11
33559	HLSF-0154-SB-012-(6.5-7.0)	soil	2004-05-10	13:30	2004-05-11
33560	HLSF-0154-SB-012-(11.5-12.0)	soil	2004-05-10	13:40	2004-05-11
33561	HLSF-0154-SB-012-(16.5-17.0)	soil	2004-05-10	14:00	2004-05-11
33562	HLSF-0154-SB-012-(20.5-21.0)	soil	2004-05-10	14:20	2004-05-11
33563	HLSF-0154-SB-112-(20.5-21.0)	soil	2004-05-10	14:20	2004-05-11
33564	HLSF-0154-SB-012-(26.5-27.0)	soil	2004-05-10	14:30	2004-05-11
33565	HLSF-0154-SB-012-(31.5-32)	soil	2004-05-10	14:45	2004-05-11
33566	HLSF-0154-SB-012-(36.5-37)	soil	2004-05-10	14:55	2004-05-11
33567	HLSF-0154-SB-012-(41.5-42.0)	soil	2004-05-10	15:00	2004-05-11
33624	HLSF-0154-SB-013-(6.5-7.0)	soil	2004-05-11	07:00	2004-05-12
33625	HLSF-0154-SB-013-(11.5-12.0)	soil	2004-05-11	07:10	2004-05-12
33626	HLSF-0154-SB-013-(16.5-17.0)	soil	2004-05-11	07:20	2004-05-12
33627	HLSF-0154-SB-013-(20-20.5)	soil	2004-05-11	07:35	2004-05-12
33628	HLSF-0154-SB-013-(26.5-27.0)	soil	2004-05-11	07:45	2004-05-12
33629	HLSF-0154-SB-013-(30.5-31.0)	soil	2004-05-11	07:55	2004-05-12
33630	HLSF-0154-SB-113-(30.5-31)	soil	2004-05-11	07:55	2004-05-12

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
33631	HLSF-0154-SB-013-(35-35.5)	soil	2004-05-11	08:10	2004-05-12
33632	HLSF-0154-SB-013-(41.5-42.0)	soil	2004-05-11	08:20	2004-05-12
33633	HLSF-0154-SB-014-(6.5-7.0)	soil	2004-05-11	09:15	2004-05-12
33634	HLSF-0154-SB-014-(11.5-12)	soil	2004-05-11	09:30	2004-05-12
33635	HLSF-0154-SB-014-(16.5-17.0)	soil	2004-05-11	09:40	2004-05-12
33636	HLSF-0154-SB-014-(21.5-22.0)	soil	2004-05-11	09:45	2004-05-12
33637	HLSF-0154-SB-014-(30-30.5)	soil	2004-05-11	10:05	2004-05-12
33638	HLSF-0154-SB-114-(30-30.5)	soil	2004-05-11	10:05	2004-05-12
33639	HLSF-0154-SB-014-(36.5-37)	soil	2004-05-11	10:15	2004-05-12
33640	HLSF-0154-SB-014-(41.5-42)	soil	2004-05-11	10:25	2004-05-12
33641	HLSF-0154-SB-015-(6.5-7.0)	soil	2004-05-11	11:25	2004-05-12
33642	HLSF-0154-SB-015-(11.5-12.0)	soil	2004-05-11	11:35	2004-05-12
33643	HLSF-0154-SB-015-(16.5-17.0)	soil	2004-05-11	12:10	2004-05-12
33644	HLSF-0154-SB-015-(21.5-22)	soil	2004-05-11	12:20	2004-05-12
33645	HLSF-0154-SB-115-(21.5-22)	soil	2004-05-11	12:20	2004-05-12
33646	HLSF-0154-SB-015-(26.5-27)	soil	2004-05-11	12:30	2004-05-12
33647	HLSF-0154-SB-015-(31.5-32)	soil	2004-05-11	12:40	2004-05-12
33648	HLSF-0154-SB-015-(36.5-37)	soil	2004-05-11	12:50	2004-05-12
33649	HLSF-0154-SB-015-(41.5-42)	soil	2004-05-11	13:00	2004-05-12
33650	HLSF-0154-SB-016-(6.5-7.0)	soil	2004-05-11	14:05	2004-05-12
33651	HLSF-0154-SB-016-(11.5-12.0)	soil	2004-05-11	14:15	2004-05-12
33652	HLSF-0154-SB-016-(16.5-17.0)	soil	2004-05-11	14:20	2004-05-12
33653	HLSF-0154-SB-016-(20.5-21.0)	soil	2004-05-11	14:40	2004-05-12
33654	HLSF-0154-SB-116-(20.5-21.0)	soil	2004-05-11	14:40	2004-05-12
33655	HLSF-0154-SB-016-(26.5-27)	soil	2004-05-11	14:45	2004-05-12
33656	HLSF-0154-SB-016-(30.5-31.0)	soil	2004-05-11	14:55	2004-05-12
33657	HLSF-0154-SB-016-(35.5-36)	soil	2004-05-11	15:10	2004-05-12
33658	HLSF-0154-SB-016-(41.5-42.0)	soil	2004-05-11	15:20	2004-05-12
33659	HLSF-0154-SB-014-(26.5-27)	soil	2004-05-11	09:58	2004-05-12
33836	HLSF-0154-SB-017-(6.5-7.0)	soil	2004-05-12	07:00	2004-05-13
33837	HLSF-0154-SB-017-(11.5-12.0)	soil	2004-05-12	07:10	2004-05-13
33838	HLSF-0154-SB-017-(16.5-17.0)	soil	2004-05-12	07:20	2004-05-13
33839	HLSF-0154-SB-017-(21.0-21.5)	soil	2004-05-12	07:40	2004-05-13
33840	HLSF-0154-SB-017-(26.5-27)	soil	2004-05-12	07:50	2004-05-13
33841	HLSF-0154-SB-017-(31.5-32)	soil	2004-05-12	08:00	2004-05-13
33842	HLSF-0154-SB-017-(36.5-37)	soil	2004-05-12	08:15	2004-05-13
33843	HLSF-0154-SB-017-(41.5-42)	soil	2004-05-12	08:30	2004-05-13
33844	HLSF-0154-SB-018-(6.5-7.0)	soil	2004-05-12	09:20	2004-05-13
33845	HLSF-0154-SB-018-(11.5-12.0)	soil	2004-05-12	09:45	2004-05-13
33846	HLSF-0154-SB-018-(16.5-17)	soil	2004-05-12	09:50	2004-05-13
33847	HLSF-0154-SB-018-(20.5-21.0)	soil	2004-05-12	10:15	2004-05-13
33848	HLSF-0154-SB-018-(26.5-27)	soil	2004-05-12	10:25	2004-05-13
33849	HLSF-0154-SB-018-(30.5-31)	soil	2004-05-12	10:35	2004-05-13
33850	HLSF-0154-SB-018-(36.5-37)	soil	2004-05-12	10:50	2004-05-13
33851	HLSF-0154-SB-018-(41.5-42)	soil	2004-05-12	11:00	2004-05-13

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 192 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 33541 - HLSF-0154-SB-010-(6.5-7)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9652	Date Analyzed:	2004-05-13	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33541 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.56	mg/Kg	0.033	80.0	59	0 - 139
Phenol-d5		1.58	mg/Kg	0.033	80.0	60	0 - 137
Nitrobenzene-d5		1.54	mg/Kg	0.033	80.0	58	5.8 - 137
2-Fluorobiphenyl		1.71	mg/Kg	0.033	80.0	65	13.1 - 127
2,4,6-Tribromophenol		1.77	mg/Kg	0.033	80.0	67	0 - 154
Terphenyl-d14		2.00	mg/Kg	0.033	80.0	76	9.5 - 150

Sample: 33542 - HLSF-0154-SB-010-(11.5-12)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9652	Date Analyzed:	2004-05-13	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33542 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33542 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.73	mg/Kg	0.033	80.0	65	0 - 139
Phenol-d5		1.76	mg/Kg	0.033	80.0	67	0 - 137
Nitrobenzene-d5		1.68	mg/Kg	0.033	80.0	64	5.8 - 137
2-Fluorobiphenyl		1.83	mg/Kg	0.033	80.0	69	13.1 - 127
2,4,6-Tribromophenol		1.92	mg/Kg	0.033	80.0	73	0 - 154
Terphenyl-d14		2.11	mg/Kg	0.033	80.0	80	9.5 - 150

Sample: 33543 - HLSF-0154-SB-010-(16.5-17)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9652	Date Analyzed:	2004-05-13	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33543 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33543 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.68	mg/Kg	0.033	80.0	64	0 - 139
Phenol-d5		1.69	mg/Kg	0.033	80.0	64	0 - 137
Nitrobenzene-d5		1.61	mg/Kg	0.033	80.0	61	5.8 - 137
2-Fluorobiphenyl		1.88	mg/Kg	0.033	80.0	71	13.1 - 127
2,4,6-Tribromophenol		2.00	mg/Kg	0.033	80.0	76	0 - 154
Terphenyl-d14		2.21	mg/Kg	0.033	80.0	84	9.5 - 150

Sample: 33544 - HLSF-0154-SB-010-(21.5-22)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9652	Date Analyzed:	2004-05-13	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33544 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33544 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.64	mg/Kg	0.033	80.0	62	0 - 139
Phenol-d5		1.64	mg/Kg	0.033	80.0	62	0 - 137
Nitrobenzene-d5		1.58	mg/Kg	0.033	80.0	60	5.8 - 137
2-Fluorobiphenyl		1.77	mg/Kg	0.033	80.0	67	13.1 - 127
2,4,6-Tribromophenol		1.80	mg/Kg	0.033	80.0	68	0 - 154
Terphenyl-d14		1.98	mg/Kg	0.033	80.0	75	9.5 - 150

Sample: 33545 - HLSF-0154-SB-010-(31.5-32)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9652	Date Analyzed:	2004-05-13	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50

continued...

sample 33545 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33545 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.60	mg/Kg	0.033	80.0	61	0 - 139
Phenol-d5		1.60	mg/Kg	0.033	80.0	61	0 - 137
Nitrobenzene-d5		1.56	mg/Kg	0.033	80.0	59	5.8 - 137
2-Fluorobiphenyl		1.75	mg/Kg	0.033	80.0	66	13.1 - 127
2,4,6-Tribromophenol		1.85	mg/Kg	0.033	80.0	70	0 - 154
Terphenyl-d14		2.04	mg/Kg	0.033	80.0	77	9.5 - 150

Sample: 33546 - HLSF-0154-SB-010-(26.5-27)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9652	Date Analyzed:	2004-05-13	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33546 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.75	mg/Kg	0.033	80.0	66	0 - 139
Phenol-d5		1.75	mg/Kg	0.033	80.0	66	0 - 137
Nitrobenzene-d5		1.67	mg/Kg	0.033	80.0	63	5.8 - 137
2-Fluorobiphenyl		1.86	mg/Kg	0.033	80.0	70	13.1 - 127

continued . . .

sample continued . . .

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2,4,6-Tribromophenol		1.94	mg/Kg	0.033	80.0	73	0 - 154
Terphenyl-d14		2.05	mg/Kg	0.033	80.0	78	9.5 - 150

Sample: 33547 - HLSF-0154-SB-110-(26.5-27)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9652	Date Analyzed:	2004-05-13	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33547 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50

continued...

sample 33547 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.77	mg/Kg	0.033	80.0	67	0 - 139
Phenol-d5		1.79	mg/Kg	0.033	80.0	68	0 - 137
Nitrobenzene-d5		1.68	mg/Kg	0.033	80.0	64	5.8 - 137
2-Fluorobiphenyl		1.80	mg/Kg	0.033	80.0	68	13.1 - 127
2,4,6-Tribromophenol		1.96	mg/Kg	0.033	80.0	74	0 - 154
Terphenyl-d14		2.06	mg/Kg	0.033	80.0	78	9.5 - 150

Sample: 33548 - HLSF-0154-SB-010-(36.5-37)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9652	Date Analyzed:	2004-05-13	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33548 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33548 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.80	mg/Kg	0.033	80.0	68	0 - 139
Phenol-d5		1.83	mg/Kg	0.033	80.0	69	0 - 137
Nitrobenzene-d5		1.79	mg/Kg	0.033	80.0	68	5.8 - 137
2-Fluorobiphenyl		1.88	mg/Kg	0.033	80.0	71	13.1 - 127
2,4,6-Tribromophenol		1.96	mg/Kg	0.033	80.0	74	0 - 154
Terphenyl-d14		2.01	mg/Kg	0.033	80.0	76	9.5 - 150

Sample: 33549 - HLSF-0154-SB-010-(41.5-42)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9652	Date Analyzed:	2004-05-13	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33549 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33549 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.71	mg/Kg	0.033	80.0	65	0 - 139
Phenol-d5		1.72	mg/Kg	0.033	80.0	65	0 - 137
Nitrobenzene-d5		1.70	mg/Kg	0.033	80.0	64	5.8 - 137
2-Fluorobiphenyl		1.74	mg/Kg	0.033	80.0	66	13.1 - 127
2,4,6-Tribromophenol		1.88	mg/Kg	0.033	80.0	71	0 - 154
Terphenyl-d14		1.99	mg/Kg	0.033	80.0	75	9.5 - 150

Sample: 33550 - HLSF-0154-SB-011-(6.5-7.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9652	Date Analyzed:	2004-05-13	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33550 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33550 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.47	mg/Kg	0.033	80.0	56	0 - 139
Phenol-d5		1.46	mg/Kg	0.033	80.0	55	0 - 137
Nitrobenzene-d5		1.49	mg/Kg	0.033	80.0	56	5.8 - 137
2-Fluorobiphenyl		1.52	mg/Kg	0.033	80.0	58	13.1 - 127
2,4,6-Tribromophenol		1.54	mg/Kg	0.033	80.0	58	0 - 154
Terphenyl-d14		1.72	mg/Kg	0.033	80.0	65	9.5 - 150

Sample: 33551 - HLSF-0154-SB-011-(11.5-12.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9652	Date Analyzed:	2004-05-13	Analyzed By:	RC

Prep Batch: 8470 Date Prepared: 2004-05-12 Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50

continued . . .

ample 33551 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)? uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)? uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.79	mg/Kg	0.033	80.0	68	0 - 139
Phenol-d5		1.82	mg/Kg	0.033	80.0	69	0 - 137
Nitrobenzene-d5		1.81	mg/Kg	0.033	80.0	68	5.8 - 137
2-Fluorobiphenyl		1.92	mg/Kg	0.033	80.0	73	13.1 - 127
2,4,6-Tribromophenol		2.03	mg/Kg	0.033	80.0	77	0 - 154
Terphenyl-d14		2.07	mg/Kg	0.033	80.0	78	9.5 - 150

Sample: 33552 - HLSF-0154-SB-011-(16.5-17.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9652	Date Analyzed:	2004-05-13	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33552 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.64	mg/Kg	0.033	80.0	62	0 - 139
Phenol-d5		1.66	mg/Kg	0.033	80.0	63	0 - 137

continued...

sample continued . . .

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		1.62	mg/Kg	0.033	80.0	61	5.8 - 137
2-Fluorobiphenyl		1.74	mg/Kg	0.033	80.0	66	13.1 - 127
2,4,6-Tribromophenol		1.86	mg/Kg	0.033	80.0	70	0 - 154
Terphenyl-d14		2.07	mg/Kg	0.033	80.0	78	9.5 - 150

Sample: 33553 - HLSF-0154-SB-011-(21.5-22)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9652	Date Analyzed:	2004-05-13	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33553 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33553 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.84	mg/Kg	0.033	80.0	70	0 - 139
Phenol-d5		1.85	mg/Kg	0.033	80.0	70	0 - 137
Nitrobenzene-d5		1.78	mg/Kg	0.033	80.0	67	5.8 - 137
2-Fluorobiphenyl		1.94	mg/Kg	0.033	80.0	73	13.1 - 127
2,4,6-Tribromophenol		2.07	mg/Kg	0.033	80.0	78	0 - 154
Terphenyl-d14		2.09	mg/Kg	0.033	80.0	79	9.5 - 150

Sample: 33554 - HLSF-0154-SB-111-(21.5-22)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9652	Date Analyzed:	2004-05-13	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33554 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33554 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)? uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)? uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.82	mg/Kg	0.033	80.0	69	0 - 139
Phenol-d5		1.85	mg/Kg	0.033	80.0	70	0 - 137
Nitrobenzene-d5		1.78	mg/Kg	0.033	80.0	67	5.8 - 137
2-Fluorobiphenyl		1.93	mg/Kg	0.033	80.0	73	13.1 - 127
2,4,6-Tribromophenol		2.05	mg/Kg	0.033	80.0	78	0 - 154
Terphenyl-d14		2.10	mg/Kg	0.033	80.0	80	9.5 - 150

Sample: 33555 - HLSF-0154-SB-011-(26.5-27)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9652	Date Analyzed:	2004-05-13	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33555 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50

continued...

sample 33555 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)? uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)? uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.75	mg/Kg	0.033	80.0	66	0 - 139
Phenol-d5		1.81	mg/Kg	0.033	80.0	68	0 - 137
Nitrobenzene-d5		1.69	mg/Kg	0.033	80.0	64	5.8 - 137
2-Fluorobiphenyl		1.86	mg/Kg	0.033	80.0	70	13.1 - 127
2,4,6-Tribromophenol		2.00	mg/Kg	0.033	80.0	76	0 - 154
Terphenyl-d14		2.06	mg/Kg	0.033	80.0	78	9.5 - 150

Sample: 33556 - HLSF-0154-SB-011-(31.5-32)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9652	Date Analyzed:	2004-05-13	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50

continued...

sample 33556 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50

continued...

sample 33556 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.74	mg/Kg	0.033	80.0	66	0 - 139
Phenol-d5		1.79	mg/Kg	0.033	80.0	68	0 - 137
Nitrobenzene-d5		1.70	mg/Kg	0.033	80.0	64	5.8 - 137
2-Fluorobiphenyl		1.85	mg/Kg	0.033	80.0	70	13.1 - 127
2,4,6-Tribromophenol		1.92	mg/Kg	0.033	80.0	73	0 - 154
Terphenyl-d14		1.99	mg/Kg	0.033	80.0	75	9.5 - 150

Sample: 33557 - HLSF-0154-SB-011-(36.5-37)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9652	Date Analyzed:	2004-05-13	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33557 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.87	mg/Kg	0.033	80.0	71	0 - 139
Phenol-d5		1.90	mg/Kg	0.033	80.0	72	0 - 137
Nitrobenzene-d5		1.83	mg/Kg	0.033	80.0	69	5.8 - 137
2-Fluorobiphenyl		2.00	mg/Kg	0.033	80.0	76	13.1 - 127

continued . . .

sample continued . . .

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2,4,6-Tribromophenol		2.02	mg/Kg	0.033	80.0	76	0 - 154
Terphenyl-d14		2.11	mg/Kg	0.033	80.0	80	9.5 - 150

Sample: 33558 - HLSF-0154-SB-011-(41.5-42)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9652	Date Analyzed:	2004-05-13	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33558 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33558 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.89	mg/Kg	0.033	80.0	72	0 - 139
Phenol-d5		1.92	mg/Kg	0.033	80.0	73	0 - 137
Nitrobenzene-d5		1.90	mg/Kg	0.033	80.0	72	5.8 - 137
2-Fluorobiphenyl		2.05	mg/Kg	0.033	80.0	78	13.1 - 127
2,4,6-Tribromophenol		2.14	mg/Kg	0.033	80.0	81	0 - 154
Terphenyl-d14		2.22	mg/Kg	0.033	80.0	84	9.5 - 150

Sample: 33559 - HLSF-0154-SB-012-(6.5-7.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9652	Date Analyzed:	2004-05-13	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33559 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50

continued...

ample 33559 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)? uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)? uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.61	mg/Kg	0.033	80.0	61	0 - 139
Phenol-d5		1.67	mg/Kg	0.033	80.0	63	0 - 137
Nitrobenzene-d5		1.70	mg/Kg	0.033	80.0	64	5.8 - 137
2-Fluorobiphenyl		1.83	mg/Kg	0.033	80.0	69	13.1 - 127
2,4,6-Tribromophenol		1.74	mg/Kg	0.033	80.0	66	0 - 154
Terphenyl-d14		1.91	mg/Kg	0.033	80.0	72	9.5 - 150

Sample: 33560 - HLSF-0154-SB-012-(11.5-12.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9652	Date Analyzed:	2004-05-13	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33560 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33560 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.63	mg/Kg	0.033	80.0	62	0 - 139
Phenol-d5		1.63	mg/Kg	0.033	80.0	62	0 - 137
Nitrobenzene-d5		1.64	mg/Kg	0.033	80.0	62	5.8 - 137
2-Fluorobiphenyl		1.77	mg/Kg	0.033	80.0	67	13.1 - 127
2,4,6-Tribromophenol		1.82	mg/Kg	0.033	80.0	69	0 - 154
Terphenyl-d14		1.88	mg/Kg	0.033	80.0	71	9.5 - 150

Sample: 33561 - HLSF-0154-SB-012-(16.5-17.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9706	Date Analyzed:	2004-05-17	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33561 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33561 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.73	mg/Kg	0.033	80.0	66	0 - 139
Phenol-d5		1.72	mg/Kg	0.033	80.0	65	0 - 137
Nitrobenzene-d5		1.75	mg/Kg	0.033	80.0	66	5.8 - 137
2-Fluorobiphenyl		1.80	mg/Kg	0.033	80.0	68	13.1 - 127
2,4,6-Tribromophenol		1.94	mg/Kg	0.033	80.0	73	0 - 154
Terphenyl-d14		1.95	mg/Kg	0.033	80.0	74	9.5 - 150

Sample: 33562 - HLSF-0154-SB-012-(20.5-21.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9706	Date Analyzed:	2004-05-17	Analyzed By:	RC

Prep Batch: 8470 Date Prepared: 2004-05-12 Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33562 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.67	mg/Kg	0.033	80.0	63	0 - 139
Phenol-d5		1.68	mg/Kg	0.033	80.0	64	0 - 137
Nitrobenzene-d5		1.73	mg/Kg	0.033	80.0	66	5.8 - 137
2-Fluorobiphenyl		1.74	mg/Kg	0.033	80.0	66	13.1 - 127
2,4,6-Tribromophenol		1.88	mg/Kg	0.033	80.0	71	0 - 154
Terphenyl-d14		1.88	mg/Kg	0.033	80.0	71	9.5 - 150

Sample: 33563 - HLSF-0154-SB-112-(20.5-21.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9706	Date Analyzed:	2004-05-17	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33563 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.67	mg/Kg	0.033	80.0	63	0 - 139
Phenol-d5		1.67	mg/Kg	0.033	80.0	63	0 - 137

continued . . .

sample continued . . .

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		1.70	mg/Kg	0.033	80.0	64	5.8 - 137
2-Fluorobiphenyl		1.72	mg/Kg	0.033	80.0	65	13.1 - 127
2,4,6-Tribromophenol		1.94	mg/Kg	0.033	80.0	73	0 - 154
Terphenyl-d14		1.86	mg/Kg	0.033	80.0	70	9.5 - 150

Sample: 33564 - HLSF-0154-SB-012-(26.5-27.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9706	Date Analyzed:	2004-05-17	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33564 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33564 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.84	mg/Kg	0.033	80.0	70	0 - 139
Phenol-d5		1.83	mg/Kg	0.033	80.0	69	0 - 137
Nitrobenzene-d5		1.93	mg/Kg	0.033	80.0	73	5.8 - 137
2-Fluorobiphenyl		1.92	mg/Kg	0.033	80.0	73	13.1 - 127
2,4,6-Tribromophenol		2.00	mg/Kg	0.033	80.0	76	0 - 154
Terphenyl-d14		1.98	mg/Kg	0.033	80.0	75	9.5 - 150

Sample: 33565 - HLSF-0154-SB-012-(31.5-32)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9706	Date Analyzed:	2004-05-17	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33565 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50

continued...

sample 33565 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.57	mg/Kg	0.033	80.0	59	0 - 139
Phenol-d5		1.60	mg/Kg	0.033	80.0	61	0 - 137
Nitrobenzene-d5		1.59	mg/Kg	0.033	80.0	60	5.8 - 137
2-Fluorobiphenyl		1.60	mg/Kg	0.033	80.0	61	13.1 - 127
2,4,6-Tribromophenol		1.83	mg/Kg	0.033	80.0	69	0 - 154
Terphenyl-d14		1.98	mg/Kg	0.033	80.0	75	9.5 - 150

Sample: 33566 - HLSF-0154-SB-012-(36.5-37)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9706	Date Analyzed:	2004-05-17	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33566 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33566 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.85	mg/Kg	0.033	80.0	70	0 - 139
Phenol-d5		1.90	mg/Kg	0.033	80.0	72	0 - 137
Nitrobenzene-d5		1.94	mg/Kg	0.033	80.0	73	5.8 - 137
2-Fluorobiphenyl		1.90	mg/Kg	0.033	80.0	72	13.1 - 127
2,4,6-Tribromophenol		2.06	mg/Kg	0.033	80.0	78	0 - 154
Terphenyl-d14		2.13	mg/Kg	0.033	80.0	81	9.5 - 150

Sample: 33567 - HLSF-0154-SB-012-(41.5-42.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9706	Date Analyzed:	2004-05-17	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33567 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33567 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.91	mg/Kg	0.033	80.0	72	0 - 139
Phenol-d5		1.94	mg/Kg	0.033	80.0	73	0 - 137
Nitrobenzene-d5		1.93	mg/Kg	0.033	80.0	73	5.8 - 137
2-Fluorobiphenyl		1.96	mg/Kg	0.033	80.0	74	13.1 - 127
2,4,6-Tribromophenol		2.02	mg/Kg	0.033	80.0	76	0 - 154
Terphenyl-d14		2.10	mg/Kg	0.033	80.0	80	9.5 - 150

Sample: 33624 - HLSF-0154-SB-013-(6.5-7.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9706	Date Analyzed:	2004-05-17	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33624 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.42	mg/Kg	0.033	80.0	54	0 - 139
Phenol-d5		1.49	mg/Kg	0.033	80.0	56	0 - 137
Nitrobenzene-d5		1.52	mg/Kg	0.033	80.0	58	5.8 - 137
2-Fluorobiphenyl		1.51	mg/Kg	0.033	80.0	57	13.1 - 127

continued . . .

sample continued . . .

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2,4,6-Tribromophenol		1.52	mg/Kg	0.033	80.0	58	0 - 154
Terphenyl-d14		1.50	mg/Kg	0.033	80.0	57	9.5 - 150

Sample: 33625 - HLSF-0154-SB-013-(11.5-12.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9706	Date Analyzed:	2004-05-17	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33625 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50

continued . . .

:ample 33625 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.41	mg/Kg	0.033	80.0	53	0 - 139
Phenol-d5		1.44	mg/Kg	0.033	80.0	54	0 - 137
Nitrobenzene-d5		1.44	mg/Kg	0.033	80.0	54	5.8 - 137
2-Fluorobiphenyl		1.47	mg/Kg	0.033	80.0	56	13.1 - 127
2,4,6-Tribromophenol		1.51	mg/Kg	0.033	80.0	57	0 - 154
Terphenyl-d14		1.47	mg/Kg	0.033	80.0	56	9.5 - 150

Sample: 33626 - HLSF-0154-SB-013-(16.5-17.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9706	Date Analyzed:	2004-05-17	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33626 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33626 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.32	mg/Kg	0.033	80.0	50	0 - 139
Phenol-d5		1.36	mg/Kg	0.033	80.0	52	0 - 137
Nitrobenzene-d5		1.35	mg/Kg	0.033	80.0	51	5.8 - 137
2-Fluorobiphenyl		1.40	mg/Kg	0.033	80.0	53	13.1 - 127
2,4,6-Tribromophenol		1.56	mg/Kg	0.033	80.0	59	0 - 154
Terphenyl-d14		1.59	mg/Kg	0.033	80.0	60	9.5 - 150

Sample: 33627 - HLSF-0154-SB-013-(20-20.5)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9706	Date Analyzed:	2004-05-17	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50

continued...

sample 33627 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33627 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.24	mg/Kg	0.033	80.0	47	0 - 139
Phenol-d5		1.28	mg/Kg	0.033	80.0	48	0 - 137
Nitrobenzene-d5		1.28	mg/Kg	0.033	80.0	48	5.8 - 137
2-Fluorobiphenyl		1.31	mg/Kg	0.033	80.0	50	13.1 - 127
2,4,6-Tribromophenol		1.49	mg/Kg	0.033	80.0	56	0 - 154
Terphenyl-d14		1.44	mg/Kg	0.033	80.0	54	9.5 - 150

Sample: 33628 - HLSF-0154-SB-013-(26.5-27.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9706	Date Analyzed:	2004-05-17	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33628 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50

continued...

sample 33628 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.47	mg/Kg	0.033	80.0	56	0 - 139
Phenol-d5		1.49	mg/Kg	0.033	80.0	56	0 - 137
Nitrobenzene-d5		1.51	mg/Kg	0.033	80.0	57	5.8 - 137
2-Fluorobiphenyl		1.56	mg/Kg	0.033	80.0	59	13.1 - 127
2,4,6-Tribromophenol		1.68	mg/Kg	0.033	80.0	64	0 - 154
Terphenyl-d14		1.63	mg/Kg	0.033	80.0	62	9.5 - 150

Sample: 33629 - HLSF-0154-SB-013-(30.5-31.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9706	Date Analyzed:	2004-05-17	Analyzed By:	RC

Prep Batch: 8470 Date Prepared: 2004-05-12 Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		8.52	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		4.20	mg/Kg	0.033	7.50
2-Methylnaphthalene		7.95	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33629 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.75	mg/Kg	0.033	80.0	66	0 - 139
Phenol-d5		1.84	mg/Kg	0.033	80.0	70	0 - 137
Nitrobenzene-d5		1.72	mg/Kg	0.033	80.0	65	5.8 - 137
2-Fluorobiphenyl		1.74	mg/Kg	0.033	80.0	66	13.1 - 127
2,4,6-Tribromophenol		1.64	mg/Kg	0.033	80.0	62	0 - 154
Terphenyl-d14		1.66	mg/Kg	0.033	80.0	63	9.5 - 150

Sample: 33630 - HLSF-0154-SB-113-(30.5-31)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9706	Date Analyzed:	2004-05-17	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		8.57	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		4.22	mg/Kg	0.033	7.50
2-Methylnaphthalene		7.97	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33630 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.75	mg/Kg	0.033	80.0	66	0 - 139
Phenol-d5		1.82	mg/Kg	0.033	80.0	69	0 - 137

continued . . .

sample continued . . .

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		1.98	mg/Kg	0.033	80.0	75	5.8 - 137
2-Fluorobiphenyl		1.71	mg/Kg	0.033	80.0	65	13.1 - 127
2,4,6-Tribromophenol		1.61	mg/Kg	0.033	80.0	61	0 - 154
Terphenyl-d14		1.67	mg/Kg	0.033	80.0	63	9.5 - 150

Sample: 33631 - HLSF-0154-SB-013-(35-35.5)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9706	Date Analyzed:	2004-05-17	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33631 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33631 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.32	mg/Kg	0.033	80.0	50	0 - 139
Phenol-d5		1.34	mg/Kg	0.033	80.0	51	0 - 137
Nitrobenzene-d5		1.32	mg/Kg	0.033	80.0	50	5.8 - 137
2-Fluorobiphenyl		1.39	mg/Kg	0.033	80.0	53	13.1 - 127
2,4,6-Tribromophenol		1.57	mg/Kg	0.033	80.0	59	0 - 154
Terphenyl-d14		1.49	mg/Kg	0.033	80.0	56	9.5 - 150

Sample: 33632 - HLSF-0154-SB-013-(41.5-42.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9706	Date Analyzed:	2004-05-17	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50

continued...

sample 33632 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33632 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.33	mg/Kg	0.033	80.0	50	0 - 139
Phenol-d5		1.37	mg/Kg	0.033	80.0	52	0 - 137
Nitrobenzene-d5		1.33	mg/Kg	0.033	80.0	50	5.8 - 137
2-Fluorobiphenyl		1.42	mg/Kg	0.033	80.0	54	13.1 - 127
2,4,6-Tribromophenol		1.56	mg/Kg	0.033	80.0	59	0 - 154
Terphenyl-d14		1.56	mg/Kg	0.033	80.0	59	9.5 - 150

Sample: 33633 - HLSF-0154-SB-014-(6.5-7.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9706	Date Analyzed:	2004-05-17	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50

continued...

sample 33633 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33633 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.37	mg/Kg	0.033	80.0	52	0 - 139
Phenol-d5		1.43	mg/Kg	0.033	80.0	54	0 - 137
Nitrobenzene-d5		1.39	mg/Kg	0.033	80.0	53	5.8 - 137
2-Fluorobiphenyl		1.52	mg/Kg	0.033	80.0	58	13.1 - 127
2,4,6-Tribromophenol		1.78	mg/Kg	0.033	80.0	67	0 - 154
Terphenyl-d14		1.68	mg/Kg	0.033	80.0	64	9.5 - 150

Sample: 33634 - HLSF-0154-SB-014-(11.5-12)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9706	Date Analyzed:	2004-05-17	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50

continued...

sample 33634 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50

continued...

sample 33634 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.56	mg/Kg	0.033	80.0	59	0 - 139
Phenol-d5		1.63	mg/Kg	0.033	80.0	62	0 - 137
Nitrobenzene-d5		1.59	mg/Kg	0.033	80.0	60	5.8 - 137
2-Fluorobiphenyl		1.69	mg/Kg	0.033	80.0	64	13.1 - 127
2,4,6-Tribromophenol		1.82	mg/Kg	0.033	80.0	69	0 - 154
Terphenyl-d14		1.74	mg/Kg	0.033	80.0	66	9.5 - 150

Sample: 33635 - HLSF-0154-SB-014-(16.5-17.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9687	Date Analyzed:	2004-05-14	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33635 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.37	mg/Kg	0.033	80.0	52	0 - 139
Phenol-d5		1.41	mg/Kg	0.033	80.0	54	0 - 137
Nitrobenzene-d5		1.38	mg/Kg	0.033	80.0	52	5.8 - 137
2-Fluorobiphenyl		1.46	mg/Kg	0.033	80.0	55	13.1 - 127

continued . . .

sample continued . . .

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2,4,6-Tribromophenol		1.61	mg/Kg	0.033	80.0	61	0 - 154
Terphenyl-d14		1.62	mg/Kg	0.033	80.0	61	9.5 - 150

Sample: 33636 - HLSF-0154-SB-014-(21.5-22.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9687	Date Analyzed:	2004-05-14	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33636 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33636 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.26	mg/Kg	0.033	80.0	48	0 - 139
Phenol-d5		1.27	mg/Kg	0.033	80.0	48	0 - 137
Nitrobenzene-d5		1.22	mg/Kg	0.033	80.0	46	5.8 - 137
2-Fluorobiphenyl		1.38	mg/Kg	0.033	80.0	52	13.1 - 127
2,4,6-Tribromophenol		1.58	mg/Kg	0.033	80.0	60	0 - 154
Terphenyl-d14		1.52	mg/Kg	0.033	80.0	58	9.5 - 150

Sample: 33637 - HLSF-0154-SB-014-(30-30.5)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9687	Date Analyzed:	2004-05-14	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33637 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50

continued...

sample 33637 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.92	mg/Kg	0.033	80.0	73	0 - 139
Phenol-d5		1.96	mg/Kg	0.033	80.0	74	0 - 137
Nitrobenzene-d5		1.90	mg/Kg	0.033	80.0	72	5.8 - 137
2-Fluorobiphenyl		2.10	mg/Kg	0.033	80.0	80	13.1 - 127
2,4,6-Tribromophenol		2.12	mg/Kg	0.033	80.0	80	0 - 154
Terphenyl-d14		2.22	mg/Kg	0.033	80.0	84	9.5 - 150

Sample: 33638 - HLSF-0154-SB-114-(30-30.5)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9687	Date Analyzed:	2004-05-14	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33638 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33638 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.92	mg/Kg	0.033	80.0	73	0 - 139
Phenol-d5		1.97	mg/Kg	0.033	80.0	75	0 - 137
Nitrobenzene-d5		1.92	mg/Kg	0.033	80.0	73	5.8 - 137
2-Fluorobiphenyl		2.11	mg/Kg	0.033	80.0	80	13.1 - 127
2,4,6-Tribromophenol		2.21	mg/Kg	0.033	80.0	84	0 - 154
Terphenyl-d14		2.24	mg/Kg	0.033	80.0	85	9.5 - 150

Sample: 33639 - HLSF-0154-SB-014-(36.5-37)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9687	Date Analyzed:	2004-05-14	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33639 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33639 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.67	mg/Kg	0.033	80.0	63	0 - 139
Phenol-d5		1.68	mg/Kg	0.033	80.0	64	0 - 137
Nitrobenzene-d5		1.67	mg/Kg	0.033	80.0	63	5.8 - 137
2-Fluorobiphenyl		1.80	mg/Kg	0.033	80.0	68	13.1 - 127
2,4,6-Tribromophenol		2.01	mg/Kg	0.033	80.0	76	0 - 154
Terphenyl-d14		1.98	mg/Kg	0.033	80.0	75	9.5 - 150

Sample: 33640 - HLSF-0154-SB-014-(41.5-42)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9687	Date Analyzed:	2004-05-14	Analyzed By:	RC

Prep Batch: 8470 Date Prepared: 2004-05-12 Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33640 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.93	mg/Kg	0.033	80.0	73	0 - 139
Phenol-d5		1.89	mg/Kg	0.033	80.0	72	0 - 137
Nitrobenzene-d5		1.97	mg/Kg	0.033	80.0	75	5.8 - 137
2-Fluorobiphenyl		2.14	mg/Kg	0.033	80.0	81	13.1 - 127
2,4,6-Tribromophenol		2.26	mg/Kg	0.033	80.0	86	0 - 154
Terphenyl-d14		2.36	mg/Kg	0.033	80.0	89	9.5 - 150

Sample: 33641 - HLSF-0154-SB-015-(6.5-7.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9687	Date Analyzed:	2004-05-14	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33641 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.928	mg/Kg	0.033	80.0	35	0 - 139
Phenol-d5		0.943	mg/Kg	0.033	80.0	36	0 - 137

continued...

sample continued . . .

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.928	mg/Kg	0.033	80.0	35	5.8 - 137
2-Fluorobiphenyl		0.998	mg/Kg	0.033	80.0	38	13.1 - 127
2,4,6-Tribromophenol		1.46	mg/Kg	0.033	80.0	55	0 - 154
Terphenyl-d14		1.49	mg/Kg	0.033	80.0	56	9.5 - 150

Sample: 33642 - HLSF-0154-SB-015-(11.5-12.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9687	Date Analyzed:	2004-05-14	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33642 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33642 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.74	mg/Kg	0.033	80.0	66	0 - 139
Phenol-d5		1.77	mg/Kg	0.033	80.0	67	0 - 137
Nitrobenzene-d5		1.77	mg/Kg	0.033	80.0	67	5.8 - 137
2-Fluorobiphenyl		1.92	mg/Kg	0.033	80.0	73	13.1 - 127
2,4,6-Tribromophenol		2.11	mg/Kg	0.033	80.0	80	0 - 154
Terphenyl-d14		2.09	mg/Kg	0.033	80.0	79	9.5 - 150

Sample: 33643 - HLSF-0154-SB-015-(16.5-17.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9687	Date Analyzed:	2004-05-14	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33643 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33643 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.66	mg/Kg	0.033	80.0	63	0 - 139
Phenol-d5		1.67	mg/Kg	0.033	80.0	63	0 - 137
Nitrobenzene-d5		1.70	mg/Kg	0.033	80.0	64	5.8 - 137
2-Fluorobiphenyl		1.79	mg/Kg	0.033	80.0	68	13.1 - 127
2,4,6-Tribromophenol		1.90	mg/Kg	0.033	80.0	72	0 - 154
Terphenyl-d14		1.91	mg/Kg	0.033	80.0	72	9.5 - 150

Sample: 33644 - HLSF-0154-SB-015-(21.5-22)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9687	Date Analyzed:	2004-05-14	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33644 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50

continued...

sample 33644 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.42	mg/Kg	0.033	80.0	54	0 - 139
Phenol-d5		1.51	mg/Kg	0.033	80.0	57	0 - 137
Nitrobenzene-d5		1.44	mg/Kg	0.033	80.0	54	5.8 - 137
2-Fluorobiphenyl		1.61	mg/Kg	0.033	80.0	61	13.1 - 127
2,4,6-Tribromophenol		2.18	mg/Kg	0.033	80.0	82	0 - 154
Terphenyl-d14		2.42	mg/Kg	0.033	80.0	92	9.5 - 150

Sample: 33645 - HLSF-0154-SB-115-(21.5-22)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9687	Date Analyzed:	2004-05-14	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33645 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50

continued...

sample 33645 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	[illegible]
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.40	mg/Kg	0.033	80.0	53	0 - 139
Phenol-d5		1.49	mg/Kg	0.033	80.0	56	0 - 137
Nitrobenzene-d5		1.42	mg/Kg	0.033	80.0	54	5.8 - 137
2-Fluorobiphenyl		1.63	mg/Kg	0.033	80.0	62	13.1 - 127
2,4,6-Tribromophenol		2.21	mg/Kg	0.033	80.0	84	0 - 154
Terphenyl-d14		2.42	mg/Kg	0.033	80.0	92	9.5 - 150

Sample: 33646 - HLSF-0154-SB-015-(26.5-27)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9687	Date Analyzed:	2004-05-14	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33646 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.42	mg/Kg	0.033	80.0	54	0 - 139
Phenol-d5		1.43	mg/Kg	0.033	80.0	54	0 - 137
Nitrobenzene-d5		1.47	mg/Kg	0.033	80.0	56	5.8 - 137
2-Fluorobiphenyl		1.59	mg/Kg	0.033	80.0	60	13.1 - 127

continued . . .

sample continued...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2,4,6-Tribromophenol		1.90	mg/Kg	0.033	80.0	72	0 - 154
Terphenyl-d14		1.84	mg/Kg	0.033	80.0	70	9.5 - 150

Sample: 33647 - HLSF-0154-SB-015-(31.5-32)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9687	Date Analyzed:	2004-05-14	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50

continued...

sample 33647 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33647 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.79	mg/Kg	0.033	80.0	68	0 - 139
Phenol-d5		1.79	mg/Kg	0.033	80.0	68	0 - 137
Nitrobenzene-d5		1.83	mg/Kg	0.033	80.0	69	5.8 - 137
2-Fluorobiphenyl		1.93	mg/Kg	0.033	80.0	73	13.1 - 127
2,4,6-Tribromophenol		2.04	mg/Kg	0.033	80.0	77	0 - 154
Terphenyl-d14		2.03	mg/Kg	0.033	80.0	77	9.5 - 150

Sample: 33648 - HLSF-0154-SB-015-(36.5-37)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9687	Date Analyzed:	2004-05-14	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33648 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33648 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.80	mg/Kg	0.033	80.0	68	0 - 139
Phenol-d5		1.82	mg/Kg	0.033	80.0	69	0 - 137
Nitrobenzene-d5		1.83	mg/Kg	0.033	80.0	69	5.8 - 137
2-Fluorobiphenyl		1.90	mg/Kg	0.033	80.0	72	13.1 - 127
2,4,6-Tribromophenol		2.08	mg/Kg	0.033	80.0	79	0 - 154
Terphenyl-d14		1.99	mg/Kg	0.033	80.0	75	9.5 - 150

Sample: 33649 - HLSF-0154-SB-015-(41.5-42)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9687	Date Analyzed:	2004-05-14	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50

continued...

sample 33649 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33649 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.06	mg/Kg	0.033	80.0	40	0 - 139
Phenol-d5		1.09	mg/Kg	0.033	80.0	41	0 - 137
Nitrobenzene-d5		1.06	mg/Kg	0.033	80.0	40	5.8 - 137
2-Fluorobiphenyl		1.12	mg/Kg	0.033	80.0	42	13.1 - 127
2,4,6-Tribromophenol		1.10	mg/Kg	0.033	80.0	42	0 - 154
Terphenyl-d14		1.19	mg/Kg	0.033	80.0	45	9.5 - 150

Sample: 33650 - HLSF-0154-SB-016-(6.5-7.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9687	Date Analyzed:	2004-05-14	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50

continued...

sample 33650 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33650 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.18	mg/Kg	0.033	80.0	45	0 - 139
Phenol-d5		1.37	mg/Kg	0.033	80.0	52	0 - 137
Nitrobenzene-d5		1.67	mg/Kg	0.033	80.0	63	5.8 - 137
2-Fluorobiphenyl		1.81	mg/Kg	0.033	80.0	68	13.1 - 127
2,4,6-Tribromophenol		1.42	mg/Kg	0.033	80.0	54	0 - 154
Terphenyl-d14		1.88	mg/Kg	0.033	80.0	71	9.5 - 150

Sample: 33651 - HLSF-0154-SB-016-(11.5-12.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9687	Date Analyzed:	2004-05-14	Analyzed By:	RC

Prep Batch: 8470 Date Prepared: 2004-05-12 Prepared By: JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33651 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.60	mg/Kg	0.033	80.0	61	0 - 139
Phenol-d5		1.62	mg/Kg	0.033	80.0	61	0 - 137
Nitrobenzene-d5		1.65	mg/Kg	0.033	80.0	62	5.8 - 137
2-Fluorobiphenyl		1.78	mg/Kg	0.033	80.0	67	13.1 - 127
2,4,6-Tribromophenol		1.95	mg/Kg	0.033	80.0	74	0 - 154
Terphenyl-d14		1.86	mg/Kg	0.033	80.0	70	9.5 - 150

Sample: 33652 - HLSF-0154-SB-016-(16.5-17.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9687	Date Analyzed:	2004-05-14	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33652 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.64	mg/Kg	0.033	80.0	62	0 - 139
Phenol-d5		1.64	mg/Kg	0.033	80.0	62	0 - 137

continued . . .

sample continued . . .

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		1.64	mg/Kg	0.033	80.0	62	5.8 - 137
2-Fluorobiphenyl		1.80	mg/Kg	0.033	80.0	68	13.1 - 127
2,4,6-Tribromophenol		1.94	mg/Kg	0.033	80.0	73	0 - 154
Terphenyl-d14		1.87	mg/Kg	0.033	80.0	71	9.5 - 150

Sample: 33653 - HLSF-0154-SB-016-(20.5-21.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9687	Date Analyzed:	2004-05-14	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		13.4	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		7.96	mg/Kg	0.033	7.50
2-Methylnaphthalene		14.6	mg/Kg	0.033	7.50

continued . . .

sample 33653 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50

continued...

sample 33653 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		2.27	mg/Kg	0.033	80.0	86	0 - 139
Phenol-d5		2.32	mg/Kg	0.033	80.0	88	0 - 137
Nitrobenzene-d5		2.09	mg/Kg	0.033	80.0	79	5.8 - 137
2-Fluorobiphenyl		2.08	mg/Kg	0.033	80.0	79	13.1 - 127
2,4,6-Tribromophenol		2.12	mg/Kg	0.033	80.0	80	0 - 154
Terphenyl-d14		2.08	mg/Kg	0.033	80.0	79	9.5 - 150

Sample: 33654 - HLSF-0154-SB-116-(20.5-21.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9687	Date Analyzed:	2004-05-14	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50

continued...

sample 33654 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		14.1	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		7.76	mg/Kg	0.033	7.50
2-Methylnaphthalene		14.6	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33654 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		2.28	mg/Kg	0.033	80.0	86	0 - 139
Phenol-d5		2.39	mg/Kg	0.033	80.0	90	0 - 137
Nitrobenzene-d5		2.33	mg/Kg	0.033	80.0	88	5.8 - 137
2-Fluorobiphenyl		2.12	mg/Kg	0.033	80.0	80	13.1 - 127
2,4,6-Tribromophenol		2.17	mg/Kg	0.033	80.0	82	0 - 154
Terphenyl-d14		2.04	mg/Kg	0.033	80.0	77	9.5 - 150

Sample: 33655 - HLSF-0154-SB-016-(26.5-27)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9687	Date Analyzed:	2004-05-14	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33655 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50

continued...

sample 33655 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.29	mg/Kg	0.033	80.0	49	0 - 139
Phenol-d5		1.32	mg/Kg	0.033	80.0	50	0 - 137
Nitrobenzene-d5		1.27	mg/Kg	0.033	80.0	48	5.8 - 137
2-Fluorobiphenyl		1.44	mg/Kg	0.033	80.0	54	13.1 - 127
2,4,6-Tribromophenol		1.65	mg/Kg	0.033	80.0	62	0 - 154
Terphenyl-d14		1.62	mg/Kg	0.033	80.0	61	9.5 - 150

Sample: 33656 - HLSF-0154-SB-016-(30.5-31.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9687	Date Analyzed:	2004-05-14	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33656 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33656 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0 033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.65	mg/Kg	0.033	80.0	62	0 - 139
Phenol-d5		1.65	mg/Kg	0.033	80.0	62	0 - 137
Nitrobenzene-d5		1.68	mg/Kg	0.033	80.0	64	5.8 - 137
2-Fluorobiphenyl		1.80	mg/Kg	0.033	80.0	68	13.1 - 127
2,4,6-Tribromophenol		1.88	mg/Kg	0.033	80.0	71	0 - 154
Terphenyl-d14		1.89	mg/Kg	0.033	80.0	72	9.5 - 150

Sample: 33657 - HLSF-0154-SB-016-(35.5-36)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9687	Date Analyzed:	2004-05-14	Analyzed By:	RC
Prep Batch:	8470	Date Prepared:	2004-05-12	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33657 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.42	mg/Kg	0.033	80.0	54	0 - 139
Phenol-d5		1.50	mg/Kg	0.033	80.0	57	0 - 137
Nitrobenzene-d5		1.48	mg/Kg	0.033	80.0	56	5.8 - 137
2-Fluorobiphenyl		1.69	mg/Kg	0.033	80.0	64	13.1 - 127

continued...

sample continued . . .

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2,4,6-Tribromophenol		2.10	mg/Kg	0.033	80.0	80	0 - 154
Terphenyl-d14		2.01	mg/Kg	0.033	80.0	76	9.5 - 150

Sample: 33658 - HLSF-0154-SB-016-(41.5-42.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9766	Date Analyzed:	2004-05-18	Analyzed By:	RC
Prep Batch:	8546	Date Prepared:	2004-05-14	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33658 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33658 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.71	mg/Kg	0.033	80.0	65	0 - 139
Phenol-d5		1.74	mg/Kg	0.033	80.0	66	0 - 137
Nitrobenzene-d5		1.73	mg/Kg	0.033	80.0	66	5.8 - 137
2-Fluorobiphenyl		1.78	mg/Kg	0.033	80.0	67	13.1 - 127
2,4,6-Tribromophenol		2.04	mg/Kg	0.033	80.0	77	0 - 154
Terphenyl-d14		2.04	mg/Kg	0.033	80.0	77	9.5 - 150

Sample: 33659 - HLSF-0154-SB-014-(26.5-27)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9766	Date Analyzed:	2004-05-18	Analyzed By:	RC
Prep Batch:	8546	Date Prepared:	2004-05-14	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50

continued...

sample 33659 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33659 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.57	mg/Kg	0.033	80.0	59	0 - 139
Phenol-d5		1.62	mg/Kg	0.033	80.0	61	0 - 137
Nitrobenzene-d5		1.58	mg/Kg	0.033	80.0	60	5.8 - 137
2-Fluorobiphenyl		1.67	mg/Kg	0.033	80.0	63	13.1 - 127
2,4,6-Tribromophenol		1.98	mg/Kg	0.033	80.0	75	0 - 154
Terphenyl-d14		1.95	mg/Kg	0.033	80.0	74	9.5 - 150

Sample: 33836 - HLSF-0154-SB-017-(6.5-7.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9766	Date Analyzed:	2004-05-18	Analyzed By:	RC
Prep Batch:	8546	Date Prepared:	2004-05-14	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33836 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33836 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.48	mg/Kg	0.033	80.0	56	0 - 139
Phenol-d5		1.52	mg/Kg	0.033	80.0	58	0 - 137
Nitrobenzene-d5		1.52	mg/Kg	0.033	80.0	58	5.8 - 137
2-Fluorobiphenyl		1.62	mg/Kg	0.033	80.0	61	13.1 - 127
2,4,6-Tribromophenol		1.87	mg/Kg	0.033	80.0	71	0 - 154
Terphenyl-d14		2.02	mg/Kg	0.033	80.0	76	9.5 - 150

Sample: 33837 - HLSF-0154-SB-017-(11.5-12.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9766	Date Analyzed:	2004-05-18	Analyzed By:	RC
Prep Batch:	8546	Date Prepared:	2004-05-14	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33837 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33837 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.0578	mg/Kg	0.033	80.0	2	0 - 139
Phenol-d5		0.372	mg/Kg	0.033	80.0	14	0 - 137
Nitrobenzene-d5	[1]	0.0297	mg/Kg	0.033	80.0	1	5.8 - 137
2-Fluorobiphenyl		0.568	mg/Kg	0.033	80.0	22	13.1 - 127
2,4,6-Tribromophenol		1.67	mg/Kg	0.033	80.0	63	0 - 154
Terphenyl-d14		1.97	mg/Kg	0.033	80.0	75	9.5 - 150

Sample: 33838 - HLSF-0154-SB-017-(16.5-17.0)

[1] Sample surrogate result out of limits due to sample matrix.

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9766	Date Analyzed:	2004-05-18	Analyzed By:	RC
Prep Batch:	8546	Date Prepared:	2004-05-14	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33838 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.0251	mg/Kg	0.033	80.0	1	0 - 139
Phenol-d5		0.345	mg/Kg	0.033	80.0	13	0 - 137

continued . . .

sample continued . . .

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5	[2]	0.0109	mg/Kg	0.033	80.0	0	5.8 - 137
2-Fluorobiphenyl		0.576	mg/Kg	0.033	80.0	22	13.1 - 127
2,4,6-Tribromophenol		1.62	mg/Kg	0.033	80.0	61	0 - 154
Terphenyl-d14		1.84	mg/Kg	0.033	80.0	70	9.5 - 150

Sample: 33839 - HLSF-0154-SB-017-(21.0-21.5)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9766	Date Analyzed:	2004-05-18	Analyzed By:	RC
Prep Batch:	8546	Date Prepared:	2004-05-14	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		5.72	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		2.83	mg/Kg	0.033	7.50

continued . . .

[2]Sample surrogate result out of limits due to sample matrix.

sample 33839 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2-Methylnaphthalene		5.33	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33839 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.33	mg/Kg	0.033	80.0	50	0 - 139
Phenol-d5		1.41	mg/Kg	0.033	80.0	53	0 - 137
Nitrobenzene-d5		1.34	mg/Kg	0.033	80.0	51	5.8 - 137
2-Fluorobiphenyl		1.50	mg/Kg	0.033	80.0	57	13.1 - 127
2,4,6-Tribromophenol		1.94	mg/Kg	0.033	80.0	73	0 - 154
Terphenyl-d14		1.96	mg/Kg	0.033	80.0	74	9.5 - 150

Sample: 33840 - HLSF-0154-SB-017-(26.5-27)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9766	Date Analyzed:	2004-05-18	Analyzed By:	RC
Prep Batch:	8546	Date Prepared:	2004-05-14	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33840 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33840 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.0690	mg/Kg	0.033	80.0	3	0 - 139
Phenol-d5		0.504	mg/Kg	0.033	80.0	19	0 - 137
Nitrobenzene-d5	3	0.0439	mg/Kg	0.033	80.0	2	5.8 - 137
2-Fluorobiphenyl		0.693	mg/Kg	0.033	80.0	26	13.1 - 127
2,4,6-Tribromophenol		1.70	mg/Kg	0.033	80.0	64	0 - 154
Terphenyl-d14		1.93	mg/Kg	0.033	80.0	73	9.5 - 150

Sample: 33841 - HLSF-0154-SB-017-(31.5-32)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9766	Date Analyzed:	2004-05-18	Analyzed By:	RC
Prep Batch:	8546	Date Prepared:	2004-05-14	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50

continued . . .

[3]Sample surrogate result out of limits due to sample matrix.

sample 33841 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33841 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.69	mg/Kg	0.033	80.0	64	0 - 139
Phenol-d5		1.74	mg/Kg	0.033	80.0	66	0 - 137
Nitrobenzene-d5		1.72	mg/Kg	0.033	80.0	65	5.8 - 137
2-Fluorobiphenyl		1.74	mg/Kg	0.033	80.0	66	13.1 - 127
2,4,6-Tribromophenol		2.06	mg/Kg	0.033	80.0	78	0 - 154
Terphenyl-d14		1.98	mg/Kg	0.033	80.0	75	9.5 - 150

Sample: 33842 - HLSF-0154-SB-017-(36.5-37)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9766	Date Analyzed:	2004-05-18	Analyzed By:	RC
Prep Batch:	8546	Date Prepared:	2004-05-14	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33842 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33842 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.68	mg/Kg	0.033	80.0	64	0 - 139
Phenol-d5		1.70	mg/Kg	0.033	80.0	64	0 - 137
Nitrobenzene-d5		1.68	mg/Kg	0.033	80.0	64	5.8 - 137
2-Fluorobiphenyl		1.71	mg/Kg	0.033	80.0	65	13.1 - 127
2,4,6-Tribromophenol		2.15	mg/Kg	0.033	80.0	81	0 - 154
Terphenyl-d14		2.19	mg/Kg	0.033	80.0	83	9.5 - 150

Sample: 33843 - HLSF-0154-SB-017-(41.5-42)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9766	Date Analyzed:	2004-05-18	Analyzed By:	RC
Prep Batch:	8546	Date Prepared:	2004-05-14	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33843 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.85	mg/Kg	0.033	80.0	70	0 - 139
Phenol-d5		1.87	mg/Kg	0.033	80.0	71	0 - 137

continued . . .

sample continued . . .

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		1.87	mg/Kg	0.033	80.0	71	5.8 - 137
2-Fluorobiphenyl		1.95	mg/Kg	0.033	80.0	74	13.1 - 127
2,4,6-Tribromophenol		2.14	mg/Kg	0.033	80.0	81	0 - 154
Terphenyl-d14		2.14	mg/Kg	0.033	80.0	81	9.5 - 150

Sample: 33844 - HLSF-0154-SB-018-(6.5-7.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9766	Date Analyzed:	2004-05-18	Analyzed By:	RC
Prep Batch:	8546	Date Prepared:	2004-05-14	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33844 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33844 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.74	mg/Kg	0.033	80.0	66	0 - 139
Phenol-d5		1.77	mg/Kg	0.033	80.0	67	0 - 137
Nitrobenzene-d5		1.76	mg/Kg	0.033	80.0	67	5.8 - 137
2-Fluorobiphenyl		1.83	mg/Kg	0.033	80.0	69	13.1 - 127
2,4,6-Tribromophenol		2.15	mg/Kg	0.033	80.0	81	0 - 154
Terphenyl-d14		2.05	mg/Kg	0.033	80.0	78	9.5 - 150

Sample: 33845 - HLSF-0154-SB-018-(11.5-12.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9766	Date Analyzed:	2004-05-18	Analyzed By:	RC
Prep Batch:	8546	Date Prepared:	2004-05-14	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33845 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33845 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.69	mg/Kg	0.033	80.0	64	0 - 139
Phenol-d5		1.74	mg/Kg	0.033	80.0	66	0 - 137
Nitrobenzene-d5		1.69	mg/Kg	0.033	80.0	64	5.8 - 137
2-Fluorobiphenyl		1.73	mg/Kg	0.033	80.0	66	13.1 - 127
2,4,6-Tribromophenol		1.95	mg/Kg	0.033	80.0	74	0 - 154
Terphenyl-d14		1.87	mg/Kg	0.033	80.0	71	9.5 - 150

Sample: 33846 - HLSF-0154-SB-018-(16.5-17)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9766	Date Analyzed:	2004-05-18	Analyzed By:	RC
Prep Batch:	8546	Date Prepared:	2004-05-14	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50

continued...

sample 33846 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33846 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.800	mg/Kg	0.033	80.0	30	0 - 139
Phenol-d5		0.979	mg/Kg	0.033	80.0	37	0 - 137
Nitrobenzene-d5		0.780	mg/Kg	0.033	80.0	30	5.8 - 137
2-Fluorobiphenyl		1.02	mg/Kg	0.033	80.0	39	13.1 - 127
2,4,6-Tribromophenol		1.54	mg/Kg	0.033	80.0	58	0 - 154
Terphenyl-d14		1.70	mg/Kg	0.033	80.0	64	9.5 - 150

Sample: 33847 - HLSF-0154-SB-018-(20.5-21.0)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9766	Date Analyzed:	2004-05-18	Analyzed By:	RC
Prep Batch:	8546	Date Prepared:	2004-05-14	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33847 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		19.9	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		13.0	mg/Kg	0.033	7.50
2-Methylnaphthalene		23.8	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50

continued...

sample 33847 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.76	mg/Kg	0.033	80.0	67	0 - 139
Phenol-d5		2.03	mg/Kg	0.033	80.0	77	0 - 137
Nitrobenzene-d5		1.94	mg/Kg	0.033	80.0	73	5.8 - 137
2-Fluorobiphenyl		1.72	mg/Kg	0.033	80.0	65	13.1 - 127
2,4,6-Tribromophenol		1.28	mg/Kg	0.033	80.0	48	0 - 154
Terphenyl-d14		1.70	mg/Kg	0.033	80.0	64	9.5 - 150

Sample: 33848 - HLSF-0154-SB-018-(26.5-27)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9766	Date Analyzed:	2004-05-18	Analyzed By:	RC
Prep Batch:	8546	Date Prepared:	2004-05-14	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33848 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.71	mg/Kg	0.033	80.0	65	0 - 139
Phenol-d5		1.79	mg/Kg	0.033	80.0	68	0 - 137
Nitrobenzene-d5		1.71	mg/Kg	0.033	80.0	65	5.8 - 137
2-Fluorobiphenyl		1.75	mg/Kg	0.033	80.0	66	13.1 - 127

continued . . .

sample continued . . .

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2,4,6-Tribromophenol		1.99	mg/Kg	0.033	80.0	75	0 - 154
Terphenyl-d14		1.90	mg/Kg	0.033	80.0	72	9.5 - 150

Sample: 33849 - HLSF-0154-SB-018-(30.5-31)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9766	Date Analyzed:	2004-05-18	Analyzed By:	RC
Prep Batch:	8546	Date Prepared:	2004-05-14	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		0.249	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		14.6	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		7.18	mg/Kg	0.033	7.50
2-Methylnaphthalene		13.5	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33849 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33849 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.84	mg/Kg	0.033	80.0	70	0 - 139
Phenol-d5		2.08	mg/Kg	0.033	80.0	79	0 - 137
Nitrobenzene-d5		2.29	mg/Kg	0.033	80.0	87	5.8 - 137
2-Fluorobiphenyl		1.95	mg/Kg	0.033	80.0	74	13.1 - 127
2,4,6-Tribromophenol		1.50	mg/Kg	0.033	80.0	57	0 - 154
Terphenyl-d14		1.90	mg/Kg	0.033	80.0	72	9.5 - 150

Sample: 33850 - HLSF-0154-SB-018-(36.5-37)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9766	Date Analyzed:	2004-05-18	Analyzed By:	RC
Prep Batch:	8546	Date Prepared:	2004-05-14	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33850 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33850 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.56	mg/Kg	0.033	80.0	59	0 - 139
Phenol-d5		1.62	mg/Kg	0.033	80.0	61	0 - 137
Nitrobenzene-d5		1.59	mg/Kg	0.033	80.0	60	5.8 - 137
2-Fluorobiphenyl		1.66	mg/Kg	0.033	80.0	63	13.1 - 127
2,4,6-Tribromophenol		1.85	mg/Kg	0.033	80.0	70	0 - 154
Terphenyl-d14		1.96	mg/Kg	0.033	80.0	74	9.5 - 150

Sample: 33851 - HLSF-0154-SB-018-(41.5-42)

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3550
QC Batch:	9766	Date Analyzed:	2004-05-18	Analyzed By:	RC
Prep Batch:	8546	Date Prepared:	2004-05-14	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.248	mg/Kg	0.033	7.50
n-Nitrosodimethylamine		<0.248	mg/Kg	0.033	7.50
2-Picoline		<0.248	mg/Kg	0.033	7.50
Methyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Ethyl methanesulfonate		<0.248	mg/Kg	0.033	7.50
Phenol		<0.248	mg/Kg	0.033	7.50
Aniline		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethyl)ether		<0.248	mg/Kg	0.033	7.50
2-Chlorophenol		<0.248	mg/Kg	0.033	7.50
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	0.033	7.50
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	0.033	7.50
Benzyl alcohol		<0.248	mg/Kg	0.033	7.50
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	0.033	7.50
2-Methylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	0.033	7.50
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	0.033	7.50
Acetophenone		<0.248	mg/Kg	0.033	7.50

continued . . .

sample 33851 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	0.033	7.50
Hexachloroethane		<0.248	mg/Kg	0.033	7.50
Nitrobenzene		<0.248	mg/Kg	0.033	7.50
n-Nitrosopiperidine		<0.248	mg/Kg	0.033	7.50
Isophorone		<0.248	mg/Kg	0.033	7.50
2-Nitrophenol		<0.248	mg/Kg	0.033	7.50
2,4-Dimethylphenol		<0.248	mg/Kg	0.033	7.50
bis(2-chloroethoxy)methane		<0.248	mg/Kg	0.033	7.50
Benzoic acid		<0.248	mg/Kg	0.033	7.50
2,4-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
1,2,4-Trichlorobenzene		<0.248	mg/Kg	0.033	7.50
a,a-Dimethylphenethylamine		<0.248	mg/Kg	0.033	7.50
Naphthalene		<0.248	mg/Kg	0.033	7.50
4-Chloroaniline		<0.248	mg/Kg	0.033	7.50
2,6-Dichlorophenol		<0.248	mg/Kg	0.033	7.50
Hexachlorobutadiene		<0.248	mg/Kg	0.033	7.50
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	0.033	7.50
4-Chloro-3-methylphenol		<0.248	mg/Kg	0.033	7.50
1-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
2-Methylnaphthalene		<0.248	mg/Kg	0.033	7.50
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	0.033	7.50
Hexachlorocyclopentadiene		<0.248	mg/Kg	0.033	7.50
2,4,6-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2,4,5-Trichlorophenol		<0.248	mg/Kg	0.033	7.50
2-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
1-Chloronaphthalene		<0.248	mg/Kg	0.033	7.50
2-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Dimethylphthalate		<0.248	mg/Kg	0.033	7.50
Acenaphthylene		<0.248	mg/Kg	0.033	7.50
2,6-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
3-Nitroaniline		<0.248	mg/Kg	0.033	7.50
Acenaphthene		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrophenol		<0.248	mg/Kg	0.033	7.50
Dibenzofuran		<0.248	mg/Kg	0.033	7.50
Pentachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Nitrophenol		<0.248	mg/Kg	0.033	7.50
1-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,4-Dinitrotoluene		<0.248	mg/Kg	0.033	7.50
2-Naphthylamine		<0.248	mg/Kg	0.033	7.50
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	0.033	7.50
Fluorene		<0.248	mg/Kg	0.033	7.50
Diethylphthalate		<0.248	mg/Kg	0.033	7.50
4-Chlorophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
4-Nitroaniline		<0.248	mg/Kg	0.033	7.50
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	0.033	7.50
Diphenylamine		<0.248	mg/Kg	0.033	7.50
Diphenylhydrazine		<0.248	mg/Kg	0.033	7.50
4-Bromophenyl-phenylether		<0.248	mg/Kg	0.033	7.50
Phenacetin		<0.248	mg/Kg	0.033	7.50
Hexachlorobenzene		<0.248	mg/Kg	0.033	7.50
4-Aminobiphenyl		<0.248	mg/Kg	0.033	7.50

continued...

sample 33851 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Pentachlorophenol		<0.248	mg/Kg	0.033	7.50
Pentachloronitrobenzene		<0.248	mg/Kg	0.033	7.50
Pronamide		<0.248	mg/Kg	0.033	7.50
Phenanthrene		<0.248	mg/Kg	0.033	7.50
Anthracene		<0.248	mg/Kg	0.033	7.50
Di-n-butylphthalate		<0.248	mg/Kg	0.033	7.50
Fluoranthene		<0.248	mg/Kg	0.033	7.50
Benzidine		<0.248	mg/Kg	0.033	7.50
Pyrene		<0.248	mg/Kg	0.033	7.50
p-Dimethylaminoazobenzene		<0.248	mg/Kg	0.033	7.50
Butylbenzylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(a)anthracene		<0.248	mg/Kg	0.033	7.50
3,3-Dichlorobenzidine		<0.248	mg/Kg	0.033	7.50
Chrysene		<0.248	mg/Kg	0.033	7.50
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	0.033	7.50
Di-n-octylphthalate		<0.248	mg/Kg	0.033	7.50
Benzo(b)?uoranthene		<0.248	mg/Kg	0.033	7.50
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(k)?uoranthene		<0.248	mg/Kg	0.033	7.50
Benzo(a)pyrene		<0.248	mg/Kg	0.033	7.50
3-Methylcholanthrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,j)acridine		<0.248	mg/Kg	0.033	7.50
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	0.033	7.50
Dibenzo(a,h)anthracene		<0.248	mg/Kg	0.033	7.50
Benzo(g,h,i)perylene		<0.248	mg/Kg	0.033	7.50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.74	mg/Kg	0.033	80.0	66	0 - 139
Phenol-d5		1.75	mg/Kg	0.033	80.0	66	0 - 137
Nitrobenzene-d5		1.73	mg/Kg	0.033	80.0	66	5.8 - 137
2-Fluorobiphenyl		1.80	mg/Kg	0.033	80.0	68	13.1 - 127
2,4,6-Tribromophenol		1.99	mg/Kg	0.033	80.0	75	0 - 154
Terphenyl-d14		1.97	mg/Kg	0.033	80.0	75	9.5 - 150

Method Blank (1) QC Batch: 9652

Parameter	Flag	Result	Units	RL
Pyridine		<0.248	mg/Kg	7.5
n-Nitrosodimethylamine		<0.248	mg/Kg	7.5
2-Picoline		<0.248	mg/Kg	7.5
Methyl methanesulfonate		<0.248	mg/Kg	7.5
Ethyl methanesulfonate		<0.248	mg/Kg	7.5
Phenol		<0.248	mg/Kg	7.5
Aniline		<0.248	mg/Kg	7.5
bis(2-chloroethyl)ether		<0.248	mg/Kg	7.5
2-Chlorophenol		<0.248	mg/Kg	7.5
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	7.5

continued...

method blank continued . . .

Parameter	Flag	Result	Units	RL
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	7.5
Benzyl alcohol		<0.248	mg/Kg	7.5
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	7.5
2-Methylphenol		<0.248	mg/Kg	7.5
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	7.5
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	7.5
Acetophenone		<0.248	mg/Kg	7.5
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	7.5
Hexachloroethane		<0.248	mg/Kg	7.5
Nitrobenzene		<0.248	mg/Kg	7.5
n-Nitrosopiperidine		<0.248	mg/Kg	7.5
Isophorone		<0.248	mg/Kg	7.5
2-Nitrophenol		<0.248	mg/Kg	7.5
2,4-Dimethylphenol		<0.248	mg/Kg	7.5
bis(2-chloroethoxy)methane		<0.248	mg/Kg	7.5
Benzoic acid		<0.248	mg/Kg	7.5
2,4-Dichlorophenol		<0.248	mg/Kg	7.5
1,2,4-Trichlorobenzene		<0.248	mg/Kg	7.5
a,a-Dimethylphenethylamine		<0.248	mg/Kg	7.5
Naphthalene		<0.248	mg/Kg	7.5
4-Chloroaniline		<0.248	mg/Kg	7.5
2,6-Dichlorophenol		<0.248	mg/Kg	7.5
Hexachlorobutadiene		<0.248	mg/Kg	7.5
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	7.5
4-Chloro-3-methylphenol		<0.248	mg/Kg	7.5
1-Methylnaphthalene		<0.248	mg/Kg	7.5
2-Methylnaphthalene		<0.248	mg/Kg	7.5
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	7.5
Hexachlorocyclopentadiene		<0.248	mg/Kg	7.5
2,4,6-Trichlorophenol		<0.248	mg/Kg	7.5
2,4,5-Trichlorophenol		<0.248	mg/Kg	7.5
2-Chloronaphthalene		<0.248	mg/Kg	7.5
1-Chloronaphthalene		<0.248	mg/Kg	7.5
2-Nitroaniline		<0.248	mg/Kg	7.5
Dimethylphthalate		<0.248	mg/Kg	7.5
Acenaphthylene		<0.248	mg/Kg	7.5
2,6-Dinitrotoluene		<0.248	mg/Kg	7.5
3-Nitroaniline		<0.248	mg/Kg	7.5
Acenaphthene		<0.248	mg/Kg	7.5
2,4-Dinitrophenol		<0.248	mg/Kg	7.5
Dibenzofuran		<0.248	mg/Kg	7.5
Pentachlorobenzene		<0.248	mg/Kg	7.5
4-Nitrophenol		<0.248	mg/Kg	7.5
1-Naphthylamine		<0.248	mg/Kg	7.5
2,4-Dinitrotoluene		<0.248	mg/Kg	7.5
2-Naphthylamine		<0.248	mg/Kg	7.5
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	7.5
Fluorene		<0.248	mg/Kg	7.5
Diethylphthalate		<0.248	mg/Kg	7.5
4-Chlorophenyl-phenylether		<0.248	mg/Kg	7.5
4-Nitroaniline		<0.248	mg/Kg	7.5
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	7.5

continued . . .

method blank continued . . .

Parameter	Flag	Result	Units	RL
Diphenylamine		<0.248	mg/Kg	7.5
Diphenylhydrazine		<0.248	mg/Kg	7.5
4-Bromophenyl-phenylether		<0.248	mg/Kg	7.5
Phenacetin		<0.248	mg/Kg	7.5
Hexachlorobenzene		<0.248	mg/Kg	7.5
4-Aminobiphenyl		<0.248	mg/Kg	7.5
Pentachlorophenol		<0.248	mg/Kg	7.5
Pentachloronitrobenzene		<0.248	mg/Kg	7.5
Pronamide		<0.248	mg/Kg	7.5
Phenanthrene		<0.248	mg/Kg	7.5
Anthracene		<0.248	mg/Kg	7.5
Di-n-butylphthalate		<0.248	mg/Kg	7.5
Fluoranthene		<0.248	mg/Kg	7.5
Benzidine		<0.248	mg/Kg	7.5
Pyrene		<0.248	mg/Kg	7.5
p-Dimethylaminoazobenzene		<0.248	mg/Kg	7.5
Butylbenzylphthalate		<0.248	mg/Kg	7.5
Benzo(a)anthracene		<0.248	mg/Kg	7.5
3,3-Dichlorobenzidine		<0.248	mg/Kg	7.5
Chrysene		<0.248	mg/Kg	7.5
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	7.5
Di-n-octylphthalate		<0.248	mg/Kg	7.5
Benzo(b)?uoranthene		<0.248	mg/Kg	7.5
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	7.5
Benzo(k)?uoranthene		<0.248	mg/Kg	7.5
Benzo(a)pyrene		<0.248	mg/Kg	7.5
3-Methylcholanthrene		<0.248	mg/Kg	7.5
Dibenzo(a,j)acridine		<0.248	mg/Kg	7.5
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	7.5
Dibenzo(a,h)anthracene		<0.248	mg/Kg	7.5
Benzo(g,h,i)perylene		<0.248	mg/Kg	7.5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.89	mg/Kg	0.033	80.0	72	0 - 139
Phenol-d5		1.96	mg/Kg	0.033	80.0	74	0 - 137
Nitrobenzene-d5		1.76	mg/Kg	0.033	80.0	67	5.8 - 137
2-Fluorobiphenyl		1.97	mg/Kg	0.033	80.0	75	13.1 - 127
2,4,6-Tribromophenol		2.26	mg/Kg	0.033	80.0	86	0 - 154
Terphenyl-d14		2.43	mg/Kg	0.033	80.0	92	9.5 - 150

Method Blank (1) QC Batch: 9687

Parameter	Flag	Result	Units	RL
Pyridine		<0.248	mg/Kg	7.5
n-Nitrosodimethylamine		<0.248	mg/Kg	7.5
2-Picoline		<0.248	mg/Kg	7.5
Methyl methanesulfonate		<0.248	mg/Kg	7.5
Ethyl methanesulfonate		<0.248	mg/Kg	7.5

continued . . .

method blank continued . . .

Parameter	Flag	Result	Units	RL
Phenol		<0.248	mg/Kg	7.5
Aniline		<0.248	mg/Kg	7.5
bis(2-chloroethyl)ether		<0.248	mg/Kg	7.5
2-Chlorophenol		<0.248	mg/Kg	7.5
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	7.5
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	7.5
Benzyl alcohol		<0.248	mg/Kg	7.5
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	7.5
2-Methylphenol		<0.248	mg/Kg	7.5
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	7.5
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	7.5
Acetophenone		<0.248	mg/Kg	7.5
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	7.5
Hexachloroethane		<0.248	mg/Kg	7.5
Nitrobenzene		<0.248	mg/Kg	7.5
n-Nitrosopiperidine		<0.248	mg/Kg	7.5
Isophorone		<0.248	mg/Kg	7.5
2-Nitrophenol		<0.248	mg/Kg	7.5
2,4-Dimethylphenol		<0.248	mg/Kg	7.5
bis(2-chloroethoxy)methane		<0.248	mg/Kg	7.5
Benzoic acid		<0.248	mg/Kg	7.5
2,4-Dichlorophenol		<0.248	mg/Kg	7.5
1,2,4-Trichlorobenzene		<0.248	mg/Kg	7.5
a,a-Dimethylphenethylamine		<0.248	mg/Kg	7.5
Naphthalene		<0.248	mg/Kg	7.5
4-Chloroaniline		<0.248	mg/Kg	7.5
2,6-Dichlorophenol		<0.248	mg/Kg	7.5
Hexachlorobutadiene		<0.248	mg/Kg	7.5
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	7.5
4-Chloro-3-methylphenol		<0.248	mg/Kg	7.5
1-Methylnaphthalene		<0.248	mg/Kg	7.5
2-Methylnaphthalene		<0.248	mg/Kg	7.5
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	7.5
Hexachlorocyclopentadiene		<0.248	mg/Kg	7.5
2,4,6-Trichlorophenol		<0.248	mg/Kg	7.5
2,4,5-Trichlorophenol		<0.248	mg/Kg	7.5
2-Chloronaphthalene		<0.248	mg/Kg	7.5
1-Chloronaphthalene		<0.248	mg/Kg	7.5
2-Nitroaniline		<0.248	mg/Kg	7.5
Dimethylphthalate		<0.248	mg/Kg	7.5
Acenaphthylene		<0.248	mg/Kg	7.5
2,6-Dinitrotoluene		<0.248	mg/Kg	7.5
3-Nitroaniline		<0.248	mg/Kg	7.5
Acenaphthene		<0.248	mg/Kg	7.5
2,4-Dinitrophenol		<0.248	mg/Kg	7.5
Dibenzofuran		<0.248	mg/Kg	7.5
Pentachlorobenzene		<0.248	mg/Kg	7.5
4-Nitrophenol		<0.248	mg/Kg	7.5
1-Naphthylamine		<0.248	mg/Kg	7.5
2,4-Dinitrotoluene		<0.248	mg/Kg	7.5
2-Naphthylamine		<0.248	mg/Kg	7.5
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	7.5

continued . . .

method blank continued . . .

Parameter	Flag	Result	Units	RL
Fluorene		<0.248	mg/Kg	7.5
Diethylphthalate		<0.248	mg/Kg	7.5
4-Chlorophenyl-phenylether		<0.248	mg/Kg	7.5
4-Nitroaniline		<0.248	mg/Kg	7.5
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	7.5
Diphenylamine		<0.248	mg/Kg	7.5
Diphenylhydrazine		<0.248	mg/Kg	7.5
4-Bromophenyl-phenylether		<0.248	mg/Kg	7.5
Phenacetin		<0.248	mg/Kg	7.5
Hexachlorobenzene		<0.248	mg/Kg	7.5
4-Aminobiphenyl		<0.248	mg/Kg	7.5
Pentachlorophenol		<0.248	mg/Kg	7.5
Pentachloronitrobenzene		<0.248	mg/Kg	7.5
Pronamide		<0.248	mg/Kg	7.5
Phenanthrene		<0.248	mg/Kg	7.5
Anthracene		<0.248	mg/Kg	7.5
Di-n-butylphthalate		<0.248	mg/Kg	7.5
Fluoranthene		<0.248	mg/Kg	7.5
Benzidine		<0.248	mg/Kg	7.5
Pyrene		<0.248	mg/Kg	7.5
p-Dimethylaminoazobenzene		<0.248	mg/Kg	7.5
Butylbenzylphthalate		<0.248	mg/Kg	7.5
Benzo(a)anthracene		<0.248	mg/Kg	7.5
3,3-Dichlorobenzidine		<0.248	mg/Kg	7.5
Chrysene		<0.248	mg/Kg	7.5
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	7.5
Di-n-octylphthalate		<0.248	mg/Kg	7.5
Benzo(b)?uoranthene		<0.248	mg/Kg	7.5
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	7.5
Benzo(k)?uoranthene		<0.248	mg/Kg	7.5
Benzo(a)pyrene		<0.248	mg/Kg	7.5
3-Methylcholanthrene		<0.248	mg/Kg	7.5
Dibenzo(a,j)acridine		<0.248	mg/Kg	7.5
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	7.5
Dibenzo(a,h)anthracene		<0.248	mg/Kg	7.5
Benzo(g,h,i)perylene		<0.248	mg/Kg	7.5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.88	mg/Kg	0.033	80.0	71	0 - 139
Phenol-d5		1.97	mg/Kg	0.033	80.0	75	0 - 137
Nitrobenzene-d5		1.80	mg/Kg	0.033	80.0	68	5.8 - 137
2-Fluorobiphenyl		2.00	mg/Kg	0.033	80.0	76	13.1 - 127
2,4,6-Tribromophenol		2.27	mg/Kg	0.033	80.0	86	0 - 154
Terphenyl-d14		2.42	mg/Kg	0.033	80.0	92	9.5 - 150

Method Blank (1) QC Batch: 9706

Parameter	Flag	Result	Units	RL
Pyridine		<0.248	mg/Kg	7.5
n-Nitrosodimethylamine		<0.248	mg/Kg	7.5
2-Picoline		<0.248	mg/Kg	7.5
Methyl methanesulfonate		<0.248	mg/Kg	7.5
Ethyl methanesulfonate		<0.248	mg/Kg	7.5
Phenol		<0.248	mg/Kg	7.5
Aniline		<0.248	mg/Kg	7.5
bis(2-chloroethyl)ether		<0.248	mg/Kg	7.5
2-Chlorophenol		<0.248	mg/Kg	7.5
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	7.5
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	7.5
Benzyl alcohol		<0.248	mg/Kg	7.5
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	7.5
2-Methylphenol		<0.248	mg/Kg	7.5
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	7.5
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	7.5
Acetophenone		<0.248	mg/Kg	7.5
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	7.5
Hexachloroethane		<0.248	mg/Kg	7.5
Nitrobenzene		<0.248	mg/Kg	7.5
n-Nitrosopiperidine		<0.248	mg/Kg	7.5
Isophorone		<0.248	mg/Kg	7.5
2-Nitrophenol		<0.248	mg/Kg	7.5
2,4-Dimethylphenol		<0.248	mg/Kg	7.5
bis(2-chloroethoxy)methane		<0.248	mg/Kg	7.5
Benzoic acid		<0.248	mg/Kg	7.5
2,4-Dichlorophenol		<0.248	mg/Kg	7.5
1,2,4-Trichlorobenzene		<0.248	mg/Kg	7.5
a,a-Dimethylphenethylamine		<0.248	mg/Kg	7.5
Naphthalene		<0.248	mg/Kg	7.5
4-Chloroaniline		<0.248	mg/Kg	7.5
2,6-Dichlorophenol		<0.248	mg/Kg	7.5
Hexachlorobutadiene		<0.248	mg/Kg	7.5
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	7.5
4-Chloro-3-methylphenol		<0.248	mg/Kg	7.5
1-Methylnaphthalene		<0.248	mg/Kg	7.5
2-Methylnaphthalene		<0.248	mg/Kg	7.5
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	7.5
Hexachlorocyclopentadiene		<0.248	mg/Kg	7.5
2,4,6-Trichlorophenol		<0.248	mg/Kg	7.5
2,4,5-Trichlorophenol		<0.248	mg/Kg	7.5
2-Chloronaphthalene		<0.248	mg/Kg	7.5
1-Chloronaphthalene		<0.248	mg/Kg	7.5
2-Nitroaniline		<0.248	mg/Kg	7.5
Dimethylphthalate		<0.248	mg/Kg	7.5
Acenaphthylene		<0.248	mg/Kg	7.5
2,6-Dinitrotoluene		<0.248	mg/Kg	7.5
3-Nitroaniline		<0.248	mg/Kg	7.5
Acenaphthene		<0.248	mg/Kg	7.5
2,4-Dinitrophenol		<0.248	mg/Kg	7.5
Dibenzofuran		<0.248	mg/Kg	7.5
Pentachlorobenzene		<0.248	mg/Kg	7.5

continued . . .

method blank continued . . .

Parameter	Flag	Result	Units	RL
4-Nitrophenol		<0.248	mg/Kg	7.5
1-Naphthylamine		<0.248	mg/Kg	7.5
2,4-Dinitrotoluene		<0.248	mg/Kg	7.5
2-Naphthylamine		<0.248	mg/Kg	7.5
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	7.5
Fluorene		<0.248	mg/Kg	7.5
Diethylphthalate		<0.248	mg/Kg	7.5
4-Chlorophenyl-phenylether		<0.248	mg/Kg	7.5
4-Nitroaniline		<0.248	mg/Kg	7.5
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	7.5
Diphenylamine		<0.248	mg/Kg	7.5
Diphenylhydrazine		<0.248	mg/Kg	7.5
4-Bromophenyl-phenylether		<0.248	mg/Kg	7.5
Phenacetin		<0.248	mg/Kg	7.5
Hexachlorobenzene		<0.248	mg/Kg	7.5
4-Aminobiphenyl		<0.248	mg/Kg	7.5
Pentachlorophenol		<0.248	mg/Kg	7.5
Pentachloronitrobenzene		<0.248	mg/Kg	7.5
Pronamide		<0.248	mg/Kg	7.5
Phenanthrene		<0.248	mg/Kg	7.5
Anthracene		<0.248	mg/Kg	7.5
Di-n-butylphthalate		<0.248	mg/Kg	7.5
Fluoranthene		<0.248	mg/Kg	7.5
Benzidine		<0.248	mg/Kg	7.5
Pyrene		<0.248	mg/Kg	7.5
p-Dimethylaminoazobenzene		<0.248	mg/Kg	7.5
Butylbenzylphthalate		<0.248	mg/Kg	7.5
Benzo(a)anthracene		<0.248	mg/Kg	7.5
3,3-Dichlorobenzidine		<0.248	mg/Kg	7.5
Chrysene		<0.248	mg/Kg	7.5
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	7.5
Di-n-octylphthalate		<0.248	mg/Kg	7.5
Benzo(b)?uoranthene		<0.248	mg/Kg	7.5
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	7.5
Benzo(k)?uoranthene		<0.248	mg/Kg	7.5
Benzo(a)pyrene		<0.248	mg/Kg	7.5
3-Methylcholanthrene		<0.248	mg/Kg	7.5
Dibenzo(a,j)acridine		<0.248	mg/Kg	7.5
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	7.5
Dibenzo(a,h)anthracene		<0.248	mg/Kg	7.5
Benzo(g,h,i)perylene		<0.248	mg/Kg	7.5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		1.92	mg/Kg	0.033	80.0	73	0 - 139
Phenol-d5		2.03	mg/Kg	0.033	80.0	77	0 - 137
Nitrobenzene-d5		1.83	mg/Kg	0.033	80.0	69	5.8 - 137
2-Fluorobiphenyl		1.99	mg/Kg	0.033	80.0	75	13.1 - 127
2,4,6-Tribromophenol		2.38	mg/Kg	0.033	80.0	90	0 - 154
Terphenyl-d14		2.48	mg/Kg	0.033	80.0	94	9.5 - 150

Method Blank (1) QC Batch: 9766

Parameter	Flag	Result	Units	RL
Pyridine		<0.248	mg/Kg	7.5
n-Nitrosodimethylamine		<0.248	mg/Kg	7.5
2-Picoline		<0.248	mg/Kg	7.5
Methyl methanesulfonate		<0.248	mg/Kg	7.5
Ethyl methanesulfonate		<0.248	mg/Kg	7.5
Phenol		<0.248	mg/Kg	7.5
Aniline		<0.248	mg/Kg	7.5
bis(2-chloroethyl)ether		<0.248	mg/Kg	7.5
2-Chlorophenol		<0.248	mg/Kg	7.5
1,3-Dichlorobenzene (meta)		<0.248	mg/Kg	7.5
1,4-Dichlorobenzene (para)		<0.248	mg/Kg	7.5
Benzyl alcohol		<0.248	mg/Kg	7.5
1,2-Dichlorobenzene (ortho)		<0.248	mg/Kg	7.5
2-Methylphenol		<0.248	mg/Kg	7.5
bis(2-chloroisopropyl)ether		<0.248	mg/Kg	7.5
4-Methylphenol / 3-Methylphenol		<0.248	mg/Kg	7.5
Acetophenone		<0.248	mg/Kg	7.5
n-Nitrosodi-n-propylamine		<0.248	mg/Kg	7.5
Hexachloroethane		<0.248	mg/Kg	7.5
Nitrobenzene		<0.248	mg/Kg	7.5
n-Nitrosopiperidine		<0.248	mg/Kg	7.5
Isophorone		<0.248	mg/Kg	7.5
2-Nitrophenol		<0.248	mg/Kg	7.5
2,4-Dimethylphenol		<0.248	mg/Kg	7.5
bis(2-chloroethoxy)methane		<0.248	mg/Kg	7.5
Benzoic acid		<0.248	mg/Kg	7.5
2,4-Dichlorophenol		<0.248	mg/Kg	7.5
1,2,4-Trichlorobenzene		<0.248	mg/Kg	7.5
a,a-Dimethylphenethylamine		<0.248	mg/Kg	7.5
Naphthalene		<0.248	mg/Kg	7.5
4-Chloroaniline		<0.248	mg/Kg	7.5
2,6-Dichlorophenol		<0.248	mg/Kg	7.5
Hexachlorobutadiene		<0.248	mg/Kg	7.5
n-Nitroso-di-n-butylamine		<0.248	mg/Kg	7.5
4-Chloro-3-methylphenol		<0.248	mg/Kg	7.5
1-Methylnaphthalene		<0.248	mg/Kg	7.5
2-Methylnaphthalene		<0.248	mg/Kg	7.5
1,2,4,5-Tetrachlorobenzene		<0.248	mg/Kg	7.5
Hexachlorocyclopentadiene		<0.248	mg/Kg	7.5
2,4,6-Trichlorophenol		<0.248	mg/Kg	7.5
2,4,5-Trichlorophenol		<0.248	mg/Kg	7.5
2-Chloronaphthalene		<0.248	mg/Kg	7.5
1-Chloronaphthalene		<0.248	mg/Kg	7.5
2-Nitroaniline		<0.248	mg/Kg	7.5
Dimethylphthalate		<0.248	mg/Kg	7.5
Acenaphthylene		<0.248	mg/Kg	7.5
2,6-Dinitrotoluene		<0.248	mg/Kg	7.5
3-Nitroaniline		<0.248	mg/Kg	7.5
Acenaphthene		<0.248	mg/Kg	7.5
2,4-Dinitrophenol		<0.248	mg/Kg	7.5
Dibenzofuran		<0.248	mg/Kg	7.5

continued...

method blank continued . . .

Parameter	Flag	Result	Units	RL
Pentachlorobenzene		<0.248	mg/Kg	7.5
4-Nitrophenol		<0.248	mg/Kg	7.5
1-Naphthylamine		<0.248	mg/Kg	7.5
2,4-Dinitrotoluene		<0.248	mg/Kg	7.5
2-Naphthylamine		<0.248	mg/Kg	7.5
2,3,4,6-Tetrachlorophenol		<0.248	mg/Kg	7.5
Fluorene		<0.248	mg/Kg	7.5
Diethylphthalate		<0.248	mg/Kg	7.5
4-Chlorophenyl-phenylether		<0.248	mg/Kg	7.5
4-Nitroaniline		<0.248	mg/Kg	7.5
4,6-Dinitro-2-methylphenol		<0.248	mg/Kg	7.5
Diphenylamine		<0.248	mg/Kg	7.5
Diphenylhydrazine		<0.248	mg/Kg	7.5
4-Bromophenyl-phenylether		<0.248	mg/Kg	7.5
Phenacetin		<0.248	mg/Kg	7.5
Hexachlorobenzene		<0.248	mg/Kg	7.5
4-Aminobiphenyl		<0.248	mg/Kg	7.5
Pentachlorophenol		<0.248	mg/Kg	7.5
Pentachloronitrobenzene		<0.248	mg/Kg	7.5
Pronamide		<0.248	mg/Kg	7.5
Phenanthrene		<0.248	mg/Kg	7.5
Anthracene		<0.248	mg/Kg	7.5
Di-n-butylphthalate		<0.248	mg/Kg	7.5
Fluoranthene		<0.248	mg/Kg	7.5
Benzidine		<0.248	mg/Kg	7.5
Pyrene		<0.248	mg/Kg	7.5
p-Dimethylaminoazobenzene		<0.248	mg/Kg	7.5
Butylbenzylphthalate		<0.248	mg/Kg	7.5
Benzo(a)anthracene		<0.248	mg/Kg	7.5
3,3-Dichlorobenzidine		<0.248	mg/Kg	7.5
Chrysene		<0.248	mg/Kg	7.5
bis(2-ethylhexyl)phthalate		<0.248	mg/Kg	7.5
Di-n-octylphthalate		<0.248	mg/Kg	7.5
Benzo(b)?uoranthene		<0.248	mg/Kg	7.5
7,12-Dimethylbenz(a)anthracene		<0.248	mg/Kg	7.5
Benzo(k)?uoranthene		<0.248	mg/Kg	7.5
Benzo(a)pyrene		<0.248	mg/Kg	7.5
3-Methylcholanthrene		<0.248	mg/Kg	7.5
Dibenzo(a,j)acridine		<0.248	mg/Kg	7.5
Indeno(1,2,3-cd)pyrene		<0.248	mg/Kg	7.5
Dibenzo(a,h)anthracene		<0.248	mg/Kg	7.5
Benzo(g,h,i)perylene		<0.248	mg/Kg	7.5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.554	mg/Kg	0.033	80.0	21	0 - 139
Phenol-d5		0.543	mg/Kg	0.033	80.0	20	0 - 137
Nitrobenzene-d5		0.622	mg/Kg	0.033	80.0	24	5.8 - 137
2-Fluorobiphenyl		0.729	mg/Kg	0.033	80.0	28	13.1 - 127
2,4,6-Tribromophenol		2.14	mg/Kg	0.033	80.0	81	0 - 154
Terphenyl-d14		2.56	mg/Kg	0.033	80.0	97	9.5 - 150

Laboratory Control Spike (LCS-1) QC Batch: 9652

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Phenol	29.2	29.4	mg/Kg	1	80.0	<0.0923	36	1	0 - 108	20
2-Chlorophenol	23.2	23.2	mg/Kg	1	80.0	<0.0785	29	0	0 - 135	20
1,4-Dichlorobenzene (para)	12.0	12.1	mg/Kg	1	80.0	<0.0708	15	1	0 - 150	20
n-Nitrosodi-n-propylamine	48.9	50.3	mg/Kg	1	80.0	<0.0839	61	3	0 - 170	20
1,2,4-Trichlorobenzene	23.4	23.0	mg/Kg	1	80.0	<0.0807	29	2	0 - 161	20
4-Chloro-3-methylphenol	55.8	59.2	mg/Kg	1	80.0	<0.0929	70	6	0 - 137	20
Acenaphthene	61.6	61.7	mg/Kg	1	80.0	<0.0558	77	0	0 - 140	20
4-Nitrophenol	10.7	10.7	mg/Kg	1	80.0	<0.223	13	0	0 - 106	20
2,4-Dinitrotoluene	62.6	63.7	mg/Kg	1	80.0	<0.0361	78	2	0 - 185	20
Pentachlorophenol	54.4	55.1	mg/Kg	1	80.0	<0.0653	68	1	0 - 85.3	20
Pyrene	69.1	69.9	mg/Kg	1	80.0	<0.0568	86	1	0 - 164	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
2-Fluorophenol	22.4	22.1	mg/Kg	1	80.0	28	28	0 - 139
Phenol-d5	30.2	29.8	mg/Kg	1	80.0	38	37	0 - 137
Nitrobenzene-d5	23.5	23.3	mg/Kg	1	80.0	29	29	5.8 - 137
2-Fluorobiphenyl	48.7	48.8	mg/Kg	1	80.0	61	61	13.1 - 127
2,4,6-Tribromophenol	65.7	68.1	mg/Kg	1	80.0	82	85	0 - 154
Terphenyl-d14	65.9	66.0	mg/Kg	1	80.0	82	82	9.5 - 150

Laboratory Control Spike (LCS-1) QC Batch: 9687

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Phenol [4]	<0.0923	<0.0923	mg/Kg	1	80.0	<0.0923	0	0	0 - 108	20
2-Chlorophenol	<0.0785	<0.0785	mg/Kg	1	80.0	<0.0785	0	0	0 - 135	20
1,4-Dichlorobenzene (para)	<0.0708	<0.0708	mg/Kg	1	80.0	<0.0708	0	0	0 - 150	20
n-Nitrosodi-n-propylamine	<0.0839	<0.0839	mg/Kg	1	80.0	<0.0839	0	0	0 - 170	20
1,2,4-Trichlorobenzene	<0.0807	<0.0807	mg/Kg	1	80.0	<0.0807	0	0	0 - 161	20
4-Chloro-3-methylphenol	<0.0929	<0.0929	mg/Kg	1	80.0	<0.0929	0	0	0 - 137	20
Acenaphthene	0.120	0.110	mg/Kg	1	80.0	<0.0558	0	9	0 - 140	20
4-Nitrophenol	<0.223	<0.223	mg/Kg	1	80.0	<0.223	0	0	0 - 106	20
2,4-Dinitrotoluene	<0.0361	<0.0361	mg/Kg	1	80.0	<0.0361	0	0	0 - 185	20
Pentachlorophenol	<0.0653	<0.0653	mg/Kg	1	80.0	<0.0653	0	0	0 - 85.3	20
Pyrene	0.160	0.170	mg/Kg	1	80.0	<0.0568	0	6	0 - 164	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
2-Fluorophenol	56.4	53.8	mg/Kg	1	80.0	70	67	0 - 139
Phenol-d5	58.3	57.4	mg/Kg	1	80.0	73	72	0 - 137
Nitrobenzene-d5	53.0	53.2	mg/Kg	1	80.0	66	66	5.8 - 137
2-Fluorobiphenyl	61.1	60.1	mg/Kg	1	80.0	76	75	13.1 - 127
2,4,6-Tribromophenol	67.0	66.4	mg/Kg	1	80.0	84	83	0 - 154
Terphenyl-d14	74.6	73.8	mg/Kg	1	80.0	93	92	9.5 - 150

[4]LCS/LCSD were not spiked, but MS/MSD are within recovery limits. Therefore, the process is in control.

Laboratory Control Spike (LCS-1) QC Batch: 9706

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Phenol	30.3	31.1	mg/Kg	1	80.0	<0.0923	38	3	0 - 108	20
2-Chlorophenol	23.7	24.2	mg/Kg	1	80.0	<0.0785	30	2	0 - 135	20
1,4-Dichlorobenzene (para)	12.2	12.6	mg/Kg	1	80.0	<0.0708	15	3	0 - 150	20
n-Nitrosodi-n-propylamine	49.3	51.3	mg/Kg	1	80.0	<0.0839	62	4	0 - 170	20
1,2,4-Trichlorobenzene	24.3	23.9	mg/Kg	1	80.0	<0.0807	30	2	0 - 161	20
4-Chloro-3-methylphenol	59.5	59.4	mg/Kg	1	80.0	<0.0929	74	0	0 - 137	20
Acenaphthene	63.2	62.5	mg/Kg	1	80.0	<0.0558	79	1	0 - 140	20
4-Nitrophenol	24.3	13.1	mg/Kg	1	80.0	<0.223	30	60	0 - 106	20
2,4-Dinitrotoluene	71.2	72.0	mg/Kg	1	80.0	<0.0361	89	1	0 - 185	20
Pentachlorophenol	62.2	62.6	mg/Kg	1	80.0	<0.0653	78	1	0 - 85.3	20
Pyrene	70.6	71.1	mg/Kg	1	80.0	<0.0568	88	1	0 - 164	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
2-Fluorophenol	22.5	23.1	mg/Kg	1	80.0	28	29	0 - 139
Phenol-d5	31.3	31.9	mg/Kg	1	80.0	39	40	0 - 137
Nitrobenzene-d5	24.7	24.6	mg/Kg	1	80.0	31	31	5.8 - 137
2-Fluorobiphenyl	51.0	49.7	mg/Kg	1	80.0	64	62	13.1 - 127
2,4,6-Tribromophenol	69.7	70.3	mg/Kg	1	80.0	87	88	0 - 154
Terphenyl-d14	67.4	67.8	mg/Kg	1	80.0	84	85	9.5 - 150

Laboratory Control Spike (LCS-1) QC Batch: 9766

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Phenol	30.4	31.4	mg/Kg	1	80.0	<0.0923	38	3	0 - 108	20
2-Chlorophenol	23.9	25.1	mg/Kg	1	80.0	<0.0785	30	5	0 - 135	20
1,4-Dichlorobenzene (para)	12.3	12.5	mg/Kg	1	80.0	<0.0708	15	1	0 - 150	20
n-Nitrosodi-n-propylamine	51.7	54.4	mg/Kg	1	80.0	<0.0839	65	5	0 - 170	20
1,2,4-Trichlorobenzene	24.1	24.3	mg/Kg	1	80.0	<0.0807	30	1	0 - 161	20
4-Chloro-3-methylphenol	63.4	65.4	mg/Kg	1	80.0	<0.0929	79	3	0 - 137	20
Acenaphthene	61.4	63.4	mg/Kg	1	80.0	<0.0558	77	3	0 - 140	20
4-Nitrophenol	13.2	13.8	mg/Kg	1	80.0	<0.223	16	4	0 - 106	20
2,4-Dinitrotoluene	63.1	66.1	mg/Kg	1	80.0	<0.0361	79	5	0 - 185	20
Pentachlorophenol	64.4	65.9	mg/Kg	1	80.0	<0.0653	80	2	0 - 85.3	20
Pyrene	70.4	74.1	mg/Kg	1	80.0	<0.0568	88	5	0 - 164	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
2-Fluorophenol	22.8	23.6	mg/Kg	1	80.0	28	30	0 - 139
Phenol-d5	31.9	33.0	mg/Kg	1	80.0	40	41	0 - 137
Nitrobenzene-d5	24.6	25.4	mg/Kg	1	80.0	31	32	5.8 - 137
2-Fluorobiphenyl	49.6	50.2	mg/Kg	1	80.0	62	63	13.1 - 127
2,4,6-Tribromophenol	69.5	71.6	mg/Kg	1	80.0	87	90	0 - 154
Terphenyl-d14	69.4	71.9	mg/Kg	1	80.0	87	90	9.5 - 150

Matrix Spike (MS-1) QC Batch: 9652

Param		MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Phenol		55.0	53.2	mg/Kg	1	80.0	<0.0923	69	3	18 - 70	20
2-Chlorophenol	[5][6]	56.9	56.1	mg/Kg	1	80.0	<0.0785	71	1	17 - 69	20
1,4-Dichlorobenzene (para)		54.7	54.5	mg/Kg	1	80.0	<0.0708	68	0	15 - 72	20
n-Nitrosodi-n-propylamine	[7][8]	61.0	59.5	mg/Kg	1	80.0	<0.0839	76	2	18 - 73	20
1,2,4-Trichlorobenzene		57.7	57.7	mg/Kg	1	80.0	<0.0807	72	0	15 - 77	20
4-Chloro-3-methylphenol		56.9	58.2	mg/Kg	1	80.0	<0.0929	71	2	19 - 76	20
Acenaphthene		60.2	60.3	mg/Kg	1	80.0	<0.0558	75	0	18 - 82	20
4-Nitrophenol		12.3	11.0	mg/Kg	1	80.0	<0.223	15	11	0 - 86	20
2,4-Dinitrotoluene		51.1	51.8	mg/Kg	1	80.0	<0.0361	64	1	18 - 81	20
Pentachlorophenol		45.7	45.8	mg/Kg	1	80.0	<0.0653	57	0	0 - 67	20
Pyrene		67.3	66.7	mg/Kg	1	80.0	<0.0568	84	1	0 - 159	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	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
2-Fluorophenol		58.5	58.7	mg/Kg	1	80	73	73	9 - 77
Phenol-d5	[9]	63.4	60.7	mg/Kg	1	80	79	76	14 - 77
Nitrobenzene-d5		58.7	58.7	mg/Kg	1	80	73	73	17 - 81
2-Fluorobiphenyl		63.0	62.2	mg/Kg	1	80	79	78	12 - 91
2,4,6-Tribromophenol		67.7	69.1	mg/Kg	1	80	85	86	0 - 146
Terphenyl-d14		69.5	70.2	mg/Kg	1	80	87	88	2 - 106

Matrix Spike (MS-1) QC Batch: 9706

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Phenol	50.0	50.3	mg/Kg	1	80.0	<0.0923	62	0	18 - 70	20
2-Chlorophenol	53.2	52.5	mg/Kg	1	80.0	<0.0785	66	1	17 - 69	20
1,4-Dichlorobenzene (para)	51.0	51.1	mg/Kg	1	80.0	<0.0708	64	0	15 - 72	20
n-Nitrosodi-n-propylamine	54.2	53.0	mg/Kg	1	80.0	<0.0839	68	2	18 - 73	20
1,2,4-Trichlorobenzene	54.0	53.8	mg/Kg	1	80.0	<0.0807	68	0	15 - 77	20
4-Chloro-3-methylphenol	53.7	55.6	mg/Kg	1	80.0	<0.0929	67	3	19 - 76	20
Acenaphthene	55.4	55.0	mg/Kg	1	80.0	<0.0558	69	1	18 - 82	20
4-Nitrophenol	11.3	10.3	mg/Kg	1	80.0	<0.223	14	9	0 - 86	20
2,4-Dinitrotoluene	48.4	48.6	mg/Kg	1	80.0	<0.0361	60	0	18 - 81	20
Pentachlorophenol	41.6	41.1	mg/Kg	1	80.0	<0.0653	52	1	0 - 67	20
Pyrene	61.4	60.7	mg/Kg	1	80.0	<0.0568	77	1	0 - 159	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	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
2-Fluorophenol	54.2	54.6	mg/Kg	1	80	68	68	9 - 77
Phenol-d5	56.6	56.2	mg/Kg	1	80	71	70	14 - 77
Nitrobenzene-d5	54.4	55.6	mg/Kg	1	80	68	70	17 - 81

continued . . .

[5]Spike compounds out of control. Other analytes show process is in control.
[6]Spike compounds out of control. Other analytes show process is in control.
[7]Spike compounds out of control. Other analytes show process is in control.
[8]Spike compounds out of control. Other analytes show process is in control.
[9]Spike compounds out of control. Other analytes show process is in control.

matrix spikes continued . . .

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
2-Fluorobiphenyl	56.4	55.6	mg/Kg	1	80	70	70	12 - 91
2,4,6-Tribromophenol	62.4	61.5	mg/Kg	1	80	78	77	0 - 146
Terphenyl-d14	63.6	62.9	mg/Kg	1	80	80	79	2 - 106

Matrix Spike (MS-1) QC Batch: 9766

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Phenol	1.61	1.64	mg/Kg	0.033	80.0	<0.00304	61	2	18 - 70	20
2-Chlorophenol	1.68	1.70	mg/Kg	0.033	80.0	<0.00259	64	1	17 - 69	20
1,4-Dichlorobenzene (para)	1.62	1.64	mg/Kg	0.033	80.0	<0.00234	61	1	15 - 72	20
n-Nitrosodi-n-propylamine	1.77	1.81	mg/Kg	0.033	80.0	<0.00277	67	2	18 - 73	20
1,2,4-Trichlorobenzene	1.67	1.71	mg/Kg	0.033	80.0	<0.00266	63	2	15 - 77	20
4-Chloro-3-methylphenol	1.91	1.88	mg/Kg	0.033	80.0	<0.00306	72	2	19 - 76	20
Acenaphthene	1.79	1.82	mg/Kg	0.033	80.0	<0.00184	68	2	18 - 82	20
4-Nitrophenol	0.382	0.381	mg/Kg	0.033	80.0	<0.00736	14	0	0 - 86	20
2,4-Dinitrotoluene	1.58	1.58	mg/Kg	0.033	80.0	<0.00119	60	0	18 - 81	20
Pentachlorophenol	1.64	1.68	mg/Kg	0.033	80.0	<0.00215	62	2	0 - 67	20
Pyrene	2.10	2.11	mg/Kg	0.033	80.0	<0.00187	80	0	0 - 159	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	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
2-Fluorophenol	1.76	1.80	mg/Kg	0.033	80	67	68	9 - 77
Phenol-d5	1.86	1.88	mg/Kg	0.033	80	70	71	14 - 77
Nitrobenzene-d5	1.80	1.83	mg/Kg	0.033	80	68	69	17 - 81
2-Fluorobiphenyl	1.82	1.87	mg/Kg	0.033	80	69	71	12 - 91
2,4,6-Tribromophenol	2.18	2.16	mg/Kg	0.033	80	82	82	0 - 146
Terphenyl-d14	2.28	2.25	mg/Kg	0.033	80	86	85	2 - 106

Standard (CCV-1) QC Batch: 9652

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Phenol		mg/Kg	60.0	57.5	96	80 - 120	2004-05-13
1,4-Dichlorobenzene (para)		mg/Kg	60.0	60.3	100	80 - 120	2004-05-13
2-Nitrophenol		mg/Kg	60.0	59.7	100	80 - 120	2004-05-13
2,4-Dichlorophenol		mg/Kg	60.0	63.3	106	80 - 120	2004-05-13
Hexachlorobutadiene		mg/Kg	60.0	64.1	107	80 - 120	2004-05-13
4-Chloro-3-methylphenol		mg/Kg	60.0	64.8	108	80 - 120	2004-05-13
2,4,6-Trichlorophenol		mg/Kg	60.0	62.7	104	80 - 120	2004-05-13
Acenaphthene		mg/Kg	60.0	60.4	101	80 - 120	2004-05-13
Diphenylamine		mg/Kg	60.0	60.1	100	80 - 120	2004-05-13
Pentachlorophenol		mg/Kg	60.0	59.2	99	80 - 120	2004-05-13
Fluoranthene		mg/Kg	60.0	61.6	103	80 - 120	2004-05-13
Di-n-octylphthalate		mg/Kg	60.0	63.2	105	80 - 120	2004-05-13
Benzo(a)pyrene		mg/Kg	60.0	62.7	104	80 - 120	2004-05-13

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorophenol		59.6	mg/Kg	1	60.0	99	80 - 120
Phenol-d5		57.3	mg/Kg	1	60.0	96	80 - 120
Nitrobenzene-d5		59.4	mg/Kg	1	60.0	99	80 - 120
2-Fluorobiphenyl		58.6	mg/Kg	1	60.0	98	80 - 120
2,4,6-Tribromophenol		61.6	mg/Kg	1	60.0	103	80 - 120
Terphenyl-d14		60.4	mg/Kg	1	60.0	101	80 - 120

Standard (CCV-2) QC Batch: 9652

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Phenol		mg/Kg	60.0	63.4	106	80 - 120	2004-05-13
1,4-Dichlorobenzene (para)		mg/Kg	60.0	60.5	101	80 - 120	2004-05-13
2-Nitrophenol		mg/Kg	60.0	60.4	101	80 - 120	2004-05-13
2,4-Dichlorophenol		mg/Kg	60.0	63.1	105	80 - 120	2004-05-13
Hexachlorobutadiene		mg/Kg	60.0	63.8	106	80 - 120	2004-05-13
4-Chloro-3-methylphenol		mg/Kg	60.0	66.0	110	80 - 120	2004-05-13
2,4,6-Trichlorophenol		mg/Kg	60.0	63.7	106	80 - 120	2004-05-13
Acenaphthene		mg/Kg	60.0	60.3	100	80 - 120	2004-05-13
Diphenylamine		mg/Kg	60.0	61.0	102	80 - 120	2004-05-13
Pentachlorophenol		mg/Kg	60.0	63.3	106	80 - 120	2004-05-13
Fluoranthene		mg/Kg	60.0	62.3	104	80 - 120	2004-05-13
Di-n-octylphthalate		mg/Kg	60.0	62.0	103	80 - 120	2004-05-13
Benzo(a)pyrene		mg/Kg	60.0	62.1	103	80 - 120	2004-05-13

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorophenol		60.2	mg/Kg	1	60.0	100	80 - 120
Phenol-d5		57.9	mg/Kg	1	60.0	96	80 - 120
Nitrobenzene-d5		59.6	mg/Kg	1	60.0	99	80 - 120
2-Fluorobiphenyl		58.5	mg/Kg	1	60.0	98	80 - 120
2,4,6-Tribromophenol		63.9	mg/Kg	1	60.0	106	80 - 120
Terphenyl-d14		59.8	mg/Kg	1	60.0	100	80 - 120

Standard (CCV-1) QC Batch: 9687

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Phenol		mg/Kg	60.0	57.2	95	80 - 120	2004-05-14
1,4-Dichlorobenzene (para)		mg/Kg	60.0	60.5	101	80 - 120	2004-05-14
2-Nitrophenol		mg/Kg	60.0	60.8	101	80 - 120	2004-05-14
2,4-Dichlorophenol		mg/Kg	60.0	62.1	104	80 - 120	2004-05-14
Hexachlorobutadiene		mg/Kg	60.0	63.5	106	80 - 120	2004-05-14
4-Chloro-3-methylphenol		mg/Kg	60.0	63.4	106	80 - 120	2004-05-14
2,4,6-Trichlorophenol		mg/Kg	60.0	62.9	105	80 - 120	2004-05-14
Acenaphthene		mg/Kg	60.0	60.1	100	80 - 120	2004-05-14
Diphenylamine		mg/Kg	60.0	60.4	101	80 - 120	2004-05-14
Pentachlorophenol		mg/Kg	60.0	61.9	103	80 - 120	2004-05-14
Fluoranthene		mg/Kg	60.0	62.1	104	80 - 120	2004-05-14

continued . . .

standard continued . . .

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Di-n-octylphthalate		mg/Kg	60.0	62.9	105	80 - 120	2004-05-14
Benzo(a)pyrene		mg/Kg	60.0	62.5	104	80 - 120	2004-05-14

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorophenol		59.4	mg/Kg	1	60.0	99	80 - 120
Phenol-d5		57.4	mg/Kg	1	60.0	96	80 - 120
Nitrobenzene-d5		60.4	mg/Kg	1	60.0	101	80 - 120
2-Fluorobiphenyl		58.4	mg/Kg	1	60.0	97	80 - 120
2,4,6-Tribromophenol		63.6	mg/Kg	1	60.0	106	80 - 120
Terphenyl-d14		60.2	mg/Kg	1	60.0	100	80 - 120

Standard (CCV-2) QC Batch: 9687

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Phenol		mg/Kg	60.0	57.1	95	80 - 120	2004-05-14
1,4-Dichlorobenzene (para)		mg/Kg	60.0	60.6	101	80 - 120	2004-05-14
2-Nitrophenol		mg/Kg	60.0	61.9	103	80 - 120	2004-05-14
2,4-Dichlorophenol		mg/Kg	60.0	62.4	104	80 - 120	2004-05-14
Hexachlorobutadiene		mg/Kg	60.0	64.1	107	80 - 120	2004-05-14
4-Chloro-3-methylphenol		mg/Kg	60.0	63.8	106	80 - 120	2004-05-14
2,4,6-Trichlorophenol		mg/Kg	60.0	64.0	107	80 - 120	2004-05-14
Acenaphthene		mg/Kg	60.0	60.7	101	80 - 120	2004-05-14
Diphenylamine		mg/Kg	60.0	60.2	100	80 - 120	2004-05-14
Pentachlorophenol		mg/Kg	60.0	62.9	105	80 - 120	2004-05-14
Fluoranthene		mg/Kg	60.0	61.4	102	80 - 120	2004-05-14
Di-n-octylphthalate		mg/Kg	60.0	62.3	104	80 - 120	2004-05-14
Benzo(a)pyrene		mg/Kg	60.0	62.1	104	80 - 120	2004-05-14

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorophenol		60.3	mg/Kg	1	60.0	100	80 - 120
Phenol-d5		57.7	mg/Kg	1	60.0	96	80 - 120
Nitrobenzene-d5		61.2	mg/Kg	1	60.0	102	80 - 120
2-Fluorobiphenyl		59.2	mg/Kg	1	60.0	99	80 - 120
2,4,6-Tribromophenol		64.2	mg/Kg	1	60.0	107	80 - 120
Terphenyl-d14		59.0	mg/Kg	1	60.0	98	80 - 120

Standard (CCV-1) QC Batch: 9706

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Phenol		mg/Kg	60.0	57.9	96	80 - 120	2004-05-17
1,4-Dichlorobenzene (para)		mg/Kg	60.0	60.4	101	80 - 120	2004-05-17
2-Nitrophenol		mg/Kg	60.0	60.9	102	80 - 120	2004-05-17
2,4-Dichlorophenol		mg/Kg	60.0	63.1	105	80 - 120	2004-05-17

continued . . .

standard continued . . .

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hexachlorobutadiene		mg/Kg	60.0	65.3	109	80 - 120	2004-05-17
4-Chloro-3-methylphenol		mg/Kg	60.0	66.2	110	80 - 120	2004-05-17
2,4,6-Trichlorophenol		mg/Kg	60.0	63.8	106	80 - 120	2004-05-17
Acenaphthene		mg/Kg	60.0	60.6	101	80 - 120	2004-05-17
Diphenylamine		mg/Kg	60.0	61.3	102	80 - 120	2004-05-17
Pentachlorophenol		mg/Kg	60.0	64.3	107	80 - 120	2004-05-17
Fluoranthene		mg/Kg	60.0	62.8	105	80 - 120	2004-05-17
Di-n-octylphthalate		mg/Kg	60.0	63.6	106	80 - 120	2004-05-17
Benzo(a)pyrene		mg/Kg	60.0	62.8	105	80 - 120	2004-05-17

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorophenol		61.0	mg/Kg	1	60.0	102	80 - 120
Phenol-d5		57.0	mg/Kg	1	60.0	95	80 - 120
Nitrobenzene-d5		61.8	mg/Kg	1	60.0	103	80 - 120
2-Fluorobiphenyl		59.1	mg/Kg	1	60.0	98	80 - 120
2,4,6-Tribromophenol		63.6	mg/Kg	1	60.0	106	80 - 120
Terphenyl-d14		60.9	mg/Kg	1	60.0	102	80 - 120

Standard (CCV-2) QC Batch: 9706

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Phenol		mg/Kg	60.0	57.9	96	80 - 120	2004-05-17
1,4-Dichlorobenzene (para)		mg/Kg	60.0	59.5	99	80 - 120	2004-05-17
2-Nitrophenol		mg/Kg	60.0	63.0	105	80 - 120	2004-05-17
2,4-Dichlorophenol		mg/Kg	60.0	62.9	105	80 - 120	2004-05-17
Hexachlorobutadiene		mg/Kg	60.0	64.0	107	80 - 120	2004-05-17
4-Chloro-3-methylphenol		mg/Kg	60.0	67.0	112	80 - 120	2004-05-17
2,4,6-Trichlorophenol		mg/Kg	60.0	63.5	106	80 - 120	2004-05-17
Acenaphthene		mg/Kg	60.0	60.1	100	80 - 120	2004-05-17
Diphenylamine		mg/Kg	60.0	60.7	101	80 - 120	2004-05-17
Pentachlorophenol		mg/Kg	60.0	65.0	108	80 - 120	2004-05-17
Fluoranthene		mg/Kg	60.0	61.8	103	80 - 120	2004-05-17
Di-n-octylphthalate		mg/Kg	60.0	62.1	104	80 - 120	2004-05-17
Benzo(a)pyrene		mg/Kg	60.0	61.7	103	80 - 120	2004-05-17

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorophenol		59.5	mg/Kg	1	60.0	99	80 - 120
Phenol-d5		57.3	mg/Kg	1	60.0	96	80 - 120
Nitrobenzene-d5		62.3	mg/Kg	1	60.0	104	80 - 120
2-Fluorobiphenyl		58.1	mg/Kg	1	60.0	97	80 - 120
2,4,6-Tribromophenol		65.5	mg/Kg	1	60.0	109	80 - 120
Terphenyl-d14		59.8	mg/Kg	1	60.0	100	80 - 120

Standard (CCV-1) QC Batch: 9766

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Phenol		mg/Kg	60.0	58.2	97	80 - 120	2004-05-18
1,4-Dichlorobenzene (para)		mg/Kg	60.0	60.3	100	80 - 120	2004-05-18
2-Nitrophenol		mg/Kg	60.0	63.3	106	80 - 120	2004-05-18
2,4-Dichlorophenol		mg/Kg	60.0	64.0	107	80 - 120	2004-05-18
Hexachlorobutadiene		mg/Kg	60.0	64.2	107	80 - 120	2004-05-18
4-Chloro-3-methylphenol		mg/Kg	60.0	68.7	114	80 - 120	2004-05-18
2,4,6-Trichlorophenol		mg/Kg	60.0	63.7	106	80 - 120	2004-05-18
Acenaphthene		mg/Kg	60.0	59.8	100	80 - 120	2004-05-18
Diphenylamine		mg/Kg	60.0	60.0	100	80 - 120	2004-05-18
Pentachlorophenol		mg/Kg	60.0	66.6	111	80 - 120	2004-05-18
Fluoranthene		mg/Kg	60.0	61.1	102	80 - 120	2004-05-18
Di-n-octylphthalate		mg/Kg	60.0	63.6	106	80 - 120	2004-05-18
Benzo(a)pyrene		mg/Kg	60.0	62.5	104	80 - 120	2004-05-18

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorophenol		60.5	mg/Kg	1	60.0	101	80 - 120
Phenol-d5		58.0	mg/Kg	1	60.0	97	80 - 120
Nitrobenzene-d5		63.0	mg/Kg	1	60.0	105	80 - 120
2-Fluorobiphenyl		57.6	mg/Kg	1	60.0	96	80 - 120
2,4,6-Tribromophenol		66.2	mg/Kg	1	60.0	110	80 - 120
Terphenyl-d14		60.3	mg/Kg	1	60.0	100	80 - 120

Analytical and Quality Control Report

Rene Rodriguez
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: May 28, 2004

Work Order: 4051107

Project Name: HELSTE TSA Fuel Spill Investigation
Project Number: 2080.414

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
33541	HLSF-0154-SB-010-(6.5-7)	soil	2004-05-10	08:30	2004-05-11
33542	HLSF-0154-SB-010-(11.5-12)	soil	2004-05-10	08:45	2004-05-11
33543	HLSF-0154-SB-010-(16.5-17)	soil	2004-05-10	08:55	2004-05-11
33544	HLSF-0154-SB-010-(21.5-22)	soil	2004-05-10	09:00	2004-05-11
33545	HLSF-0154-SB-010-(31.5-32)	soil	2004-05-10	09:32	2004-05-11
33546	HLSF-0154-SB-010-(26.5-27)	soil	2004-05-10	09:15	2004-05-11
33547	HLSF-0154-SB-110-(26.5-27)	soil	2004-05-10	09:15	2004-05-11
33548	HLSF-0154-SB-010-(36.5-37)	soil	2004-05-10	09:40	2004-05-11
33549	HLSF-0154-SB-010-(41.5-42)	soil	2004-05-10	09:50	2004-05-11
33550	HLSF-0154-SB-011-(6.5-7.0)	soil	2004-05-10	10:40	2004-05-11
33551	HLSF-0154-SB-011-(11.5-12.0)	soil	2004-05-10	10:45	2004-05-11
33552	HLSF-0154-SB-011-(16.5-17.0)	soil	2004-05-10	11:00	2004-05-11
33553	HLSF-0154-SB-011-(21.5-22)	soil	2004-05-10	11:10	2004-05-11
33554	HLSF-0154-SB-111-(21.5-22)	soil	2004-05-10	11:10	2004-05-11
33555	HLSF-0154-SB-011-(26.5-27)	soil	2004-05-10	11:20	2004-05-11
33556	HLSF-0154-SB-011-(31.5-32)	soil	2004-05-10	11:35	2004-05-11
33557	HLSF-0154-SB-011-(36.5-37)	soil	2004-05-10	11:45	2004-05-11
33558	HLSF-0154-SB-011-(41.5-42)	soil	2004-05-10	11:56	2004-05-11
33559	HLSF-0154-SB-012-(6.5-7.0)	soil	2004-05-10	13:30	2004-05-11
33560	HLSF-0154-SB-012-(11.5-12.0)	soil	2004-05-10	13:40	2004-05-11
33561	HLSF-0154-SB-012-(16.5-17.0)	soil	2004-05-10	14:00	2004-05-11
33562	HLSF-0154-SB-012-(20.5-21.0)	soil	2004-05-10	14:20	2004-05-11
33563	HLSF-0154-SB-112-(20.5-21.0)	soil	2004-05-10	14:20	2004-05-11
33564	HLSF-0154-SB-012-(26.5-27.0)	soil	2004-05-10	14:30	2004-05-11
33565	HLSF-0154-SB-012-(31.5-32)	soil	2004-05-10	14:45	2004-05-11
33566	HLSF-0154-SB-012-(36.5-37)	soil	2004-05-10	14:55	2004-05-11
33567	HLSF-0154-SB-012-(41.5-42.0)	soil	2004-05-10	15:00	2004-05-11
33624	HLSF-0154-SB-013-(6.5-7.0)	soil	2004-05-11	07:00	2004-05-12
33625	HLSF-0154-SB-013-(11.5-12.0)	soil	2004-05-11	07:10	2004-05-12
33626	HLSF-0154-SB-013-(16.5-17.0)	soil	2004-05-11	07:20	2004-05-12
33627	HLSF-0154-SB-013-(20-20.5)	soil	2004-05-11	07:35	2004-05-12
33628	HLSF-0154-SB-013-(26.5-27.0)	soil	2004-05-11	07:45	2004-05-12
33629	HLSF-0154-SB-013-(30.5-31.0)	soil	2004-05-11	07:55	2004-05-12
33630	HLSF-0154-SB-113-(30.5-31)	soil	2004-05-11	07:55	2004-05-12

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
33631	HLSF-0154-SB-013-(35-35.5)	soil	2004-05-11	08:10	2004-05-12
33632	HLSF-0154-SB-013-(41.5-42.0)	soil	2004-05-11	08:20	2004-05-12
33633	HLSF-0154-SB-014-(6.5-7.0)	soil	2004-05-11	09:15	2004-05-12
33634	HLSF-0154-SB-014-(11.5-12)	soil	2004-05-11	09:30	2004-05-12
33635	HLSF-0154-SB-014-(16.5-17.0)	soil	2004-05-11	09:40	2004-05-12
33636	HLSF-0154-SB-014-(21.5-22.0)	soil	2004-05-11	09:45	2004-05-12
33637	HLSF-0154-SB-014-(30-30.5)	soil	2004-05-11	10:05	2004-05-12
33638	HLSF-0154-SB-114-(30-30.5)	soil	2004-05-11	10:05	2004-05-12
33639	HLSF-0154-SB-014-(36.5-37)	soil	2004-05-11	10:15	2004-05-12
33640	HLSF-0154-SB-014-(41.5-42)	soil	2004-05-11	10:25	2004-05-12
33641	HLSF-0154-SB-015-(6.5-7.0)	soil	2004-05-11	11:25	2004-05-12
33642	HLSF-0154-SB-015-(11.5-12.0)	soil	2004-05-11	11:35	2004-05-12
33643	HLSF-0154-SB-015-(16.5-17.0)	soil	2004-05-11	12:10	2004-05-12
33644	HLSF-0154-SB-015-(21.5-22)	soil	2004-05-11	12:20	2004-05-12
33645	HLSF-0154-SB-115-(21.5-22)	soil	2004-05-11	12:20	2004-05-12
33646	HLSF-0154-SB-015-(26.5-27)	soil	2004-05-11	12:30	2004-05-12
33647	HLSF-0154-SB-015-(31.5-32)	soil	2004-05-11	12:40	2004-05-12
33648	HLSF-0154-SB-015-(36.5-37)	soil	2004-05-11	12:50	2004-05-12
33649	HLSF-0154-SB-015-(41.5-42)	soil	2004-05-11	13:00	2004-05-12
33650	HLSF-0154-SB-016-(6.5-7.0)	soil	2004-05-11	14:05	2004-05-12
33651	HLSF-0154-SB-016-(11.5-12.0)	soil	2004-05-11	14:15	2004-05-12
33652	HLSF-0154-SB-016-(16.5-17.0)	soil	2004-05-11	14:20	2004-05-12
33653	HLSF-0154-SB-016-(20.5-21.0)	soil	2004-05-11	14:40	2004-05-12
33654	HLSF-0154-SB-116-(20.5-21.0)	soil	2004-05-11	14:40	2004-05-12
33655	HLSF-0154-SB-016-(26.5-27)	soil	2004-05-11	14:45	2004-05-12
33656	HLSF-0154-SB-016-(30.5-31.0)	soil	2004-05-11	14:55	2004-05-12
33657	HLSF-0154-SB-016-(35.5-36)	soil	2004-05-11	15:10	2004-05-12
33658	HLSF-0154-SB-016-(41.5-42.0)	soil	2004-05-11	15:20	2004-05-12
33659	HLSF-0154-SB-014-(26.5-27)	soil	2004-05-11	09:58	2004-05-12
33836	HLSF-0154-SB-017-(6.5-7.0)	soil	2004-05-12	07:00	2004-05-13
33837	HLSF-0154-SB-017-(11.5-12.0)	soil	2004-05-12	07:10	2004-05-13
33838	HLSF-0154-SB-017-(16.5-17.0)	soil	2004-05-12	07:20	2004-05-13
33839	HLSF-0154-SB-017-(21.0-21.5)	soil	2004-05-12	07:40	2004-05-13
33840	HLSF-0154-SB-017-(26.5-27)	soil	2004-05-12	07:50	2004-05-13
33841	HLSF-0154-SB-017-(31.5-32)	soil	2004-05-12	08:00	2004-05-13
33842	HLSF-0154-SB-017-(36.5-37)	soil	2004-05-12	08:15	2004-05-13
33843	HLSF-0154-SB-017-(41.5-42)	soil	2004-05-12	08:30	2004-05-13
33844	HLSF-0154-SB-018-(6.5-7.0)	soil	2004-05-12	09:20	2004-05-13
33845	HLSF-0154-SB-018-(11.5-12.0)	soil	2004-05-12	09:45	2004-05-13
33846	HLSF-0154-SB-018-(16.5-17)	soil	2004-05-12	09:50	2004-05-13
33847	HLSF-0154-SB-018-(20.5-21.0)	soil	2004-05-12	10:15	2004-05-13
33848	HLSF-0154-SB-018-(26.5-27)	soil	2004-05-12	10:25	2004-05-13
33849	HLSF-0154-SB-018-(30.5-31)	soil	2004-05-12	10:35	2004-05-13
33850	HLSF-0154-SB-018-(36.5-37)	soil	2004-05-12	10:50	2004-05-13
33851	HLSF-0154-SB-018-(41.5-42)	soil	2004-05-12	11:00	2004-05-13
34368	HLSF-0154-SB-019-(10-12)	soil	2004-05-13	10:16	2004-05-18
34369	HLSF-0154-SB-019-(20-22)	soil	2004-05-13	10:57	2004-05-18
34370	HLSF-0154-SB-020-(10-12)	soil	2004-05-13	12:47	2004-05-18
34371	HLSF-0154-SB-020-(20-22	soil	2004-05-13	13:04	2004-05-18
34372	HLSF-0154-SB-021-(10-12)	soil	2004-05-14	07:20	2004-05-18
34373	HLSF-0154-SB-021-(20-22)	soil	2004-05-14	07:55	2004-05-18
34374	HLSF-0154-SB-022-(10-12)	soil	2004-05-13	16:38	2004-05-18
34375	HLSF-0154-SB-022-(20-22)	soil	2004-05-13	17:06	2004-05-18

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
34376	HLSF-0154-SB-023-(10-12)	soil	2004-05-14	09:12	2004-05-18
34377	HLSF-0154-SB-023-(20-22)	soil	2004-05-14	09:55	2004-05-18
34378	HLSF-0154-SC-004-0504	soil	2004-05-17	10:00	2004-05-18
34379	HLSF-0154-SC-005-0504	soil	2004-05-17	09:15	2004-05-18

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 47 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 33541 - HLSF-0154-SB-010-(6.5-7)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9698	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8492	Date Prepared:	2004-05-12	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		5.91	mg/Kg	1	2.00
Total Barium		31.2	mg/Kg	1	10.0
Total Cadmium		2.46	mg/Kg	1	0.100
Total Chromium		13.8	mg/Kg	1	2.50
Total Lead		24.3	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33542 - HLSF-0154-SB-010-(11.5-12)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9698	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8492	Date Prepared:	2004-05-12	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		41.6	mg/Kg	1	10.0
Total Cadmium		2.01	mg/Kg	1	0.100
Total Chromium		11.6	mg/Kg	1	2.50
Total Lead		20.6	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33543 - HLSF-0154-SB-010-(16.5-17)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9698	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8492	Date Prepared:	2004-05-12	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		5.65	mg/Kg	1	2.00
Total Barium		77.2	mg/Kg	1	10.0
Total Cadmium		1.67	mg/Kg	1	0.100
Total Chromium		8.57	mg/Kg	1	2.50
Total Lead		21.9	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33544 - HLSF-0154-SB-010-(21.5-22)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9698	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8492	Date Prepared:	2004-05-12	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		6.18	mg/Kg	1	2.00
Total Barium		53.0	mg/Kg	1	10.0
Total Cadmium		2.79	mg/Kg	1	0.100
Total Chromium		18.0	mg/Kg	1	2.50
Total Lead		17.0	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33545 - HLSF-0154-SB-010-(31.5-32)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9698	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8492	Date Prepared:	2004-05-12	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		4.29	mg/Kg	1	2.00
Total Barium		129	mg/Kg	1	10.0
Total Cadmium		2.67	mg/Kg	1	0.100
Total Chromium		16.0	mg/Kg	1	2.50
Total Lead		26.5	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33546 - HLSF-0154-SB-010-(26.5-27)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9698	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8492	Date Prepared:	2004-05-12	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		6.61	mg/Kg	1	2.00
Total Barium		117	mg/Kg	1	10.0
Total Cadmium		2.37	mg/Kg	1	0.100
Total Chromium		14.8	mg/Kg	1	2.50
Total Lead		16.2	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33547 - HLSF-0154-SB-110-(26.5-27)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9698	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8492	Date Prepared:	2004-05-12	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		4.99	mg/Kg	1	2.00
Total Barium		105	mg/Kg	1	10.0
Total Cadmium		2.56	mg/Kg	1	0.100
Total Chromium		14.8	mg/Kg	1	2.50
Total Lead		22.8	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33548 - HLSF-0154-SB-010-(36.5-37)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9698	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8492	Date Prepared:	2004-05-12	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		2.77	mg/Kg	1	2.00
Total Barium		136	mg/Kg	1	10.0
Total Cadmium		2.83	mg/Kg	1	0.100
Total Chromium		17.9	mg/Kg	1	2.50
Total Lead		25.5	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33549 - HLSF-0154-SB-010-(41.5-42)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9698	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8492	Date Prepared:	2004-05-12	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		2.60	mg/Kg	1	2.00
Total Barium		42.0	mg/Kg	1	10.0
Total Cadmium		2.54	mg/Kg	1	0.100
Total Chromium		15.3	mg/Kg	1	2.50
Total Lead		22.7	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33550 - HLSF-0154-SB-011-(6.5-7.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9698	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8492	Date Prepared:	2004-05-12	Prepared By:	TP

continued . . .

sample 33550 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		4.21	mg/Kg	1	2.00
Total Barium		65.8	mg/Kg	1	10.0
Total Cadmium		1.58	mg/Kg	1	0.100
Total Chromium		8.52	mg/Kg	1	2.50
Total Lead		15.1	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33551 - HLSF-0154-SB-011-(11.5-12.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9699	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8492	Date Prepared:	2004-05-12	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		2.18	mg/Kg	1	2.00
Total Barium		109	mg/Kg	1	10.0
Total Cadmium		1.93	mg/Kg	1	0.100
Total Chromium		10.1	mg/Kg	1	2.50
Total Lead		17.5	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33552 - HLSF-0154-SB-011-(16.5-17.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9699	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8492	Date Prepared:	2004-05-12	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		55.8	mg/Kg	1	10.0
Total Cadmium		1.25	mg/Kg	1	0.100
Total Chromium		6.25	mg/Kg	1	2.50
Total Lead		13.4	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33553 - HLSF-0154-SB-011-(21.5-22)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9699	Date Analyzed:	2004-05-18	Analyzed By:	RR

Prep Batch: 8492 Date Prepared: 2004-05-12 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		2.36	mg/Kg	1	2.00
Total Barium		47.2	mg/Kg	1	10.0
Total Cadmium		0.896	mg/Kg	1	0.100
Total Chromium		3.88	mg/Kg	1	2.50
Total Lead		3.55	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33554 - HLSF-0154-SB-111-(21.5-22)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9699 Date Analyzed: 2004-05-18 Analyzed By: RR
Prep Batch: 8492 Date Prepared: 2004-05-12 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		2.28	mg/Kg	1	2.00
Total Barium		51.5	mg/Kg	1	10.0
Total Cadmium		0.868	mg/Kg	1	0.100
Total Chromium		3.77	mg/Kg	1	2.50
Total Lead		9.26	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33555 - HLSF-0154-SB-011-(26.5-27)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9699 Date Analyzed: 2004-05-18 Analyzed By: RR
Prep Batch: 8492 Date Prepared: 2004-05-12 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		112	mg/Kg	1	10.0
Total Cadmium		2.15	mg/Kg	1	0.100
Total Chromium		11.5	mg/Kg	1	2.50
Total Lead		16.7	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33556 - HLSF-0154-SB-011-(31.5-32)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9699 Date Analyzed: 2004-05-18 Analyzed By: RR
Prep Batch: 8492 Date Prepared: 2004-05-12 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		106	mg/Kg	1	10.0
Total Cadmium		2.58	mg/Kg	1	0.100
Total Chromium		12.3	mg/Kg	1	2.50
Total Lead		22.5	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33557 - HLSF-0154-SB-011-(36.5-37)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9699	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8492	Date Prepared:	2004-05-12	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		3.23	mg/Kg	1	2.00
Total Barium		97.4	mg/Kg	1	10.0
Total Cadmium		2.67	mg/Kg	1	0.100
Total Chromium		14.5	mg/Kg	1	2.50
Total Lead		24.5	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33558 - HLSF-0154-SB-011-(41.5-42)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9699	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8492	Date Prepared:	2004-05-12	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		109	mg/Kg	1	10.0
Total Cadmium		2.88	mg/Kg	1	0.100
Total Chromium		17.4	mg/Kg	1	2.50
Total Lead		19.2	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33559 - HLSF-0154-SB-012-(6.5-7.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9699	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8492	Date Prepared:	2004-05-12	Prepared By:	TP

continued . . .

sample 33559 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		2.72	mg/Kg	1	2.00
Total Barium		92.0	mg/Kg	1	10.0
Total Cadmium		1.36	mg/Kg	1	0.100
Total Chromium		7.56	mg/Kg	1	2.50
Total Lead		15.0	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33560 - HLSF-0154-SB-012-(11.5-12.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9699	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8492	Date Prepared:	2004-05-12	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		110	mg/Kg	1	10.0
Total Cadmium		1.25	mg/Kg	1	0.100
Total Chromium		6.67	mg/Kg	1	2.50
Total Lead		10.6	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33561 - HLSF-0154-SB-012-(16.5-17.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9702	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8521	Date Prepared:	2004-05-13	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		28.1	mg/Kg	1	10.0
Total Cadmium		1.47	mg/Kg	1	0.100
Total Chromium		7.53	mg/Kg	1	2.50
Total Lead		15.0	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33562 - HLSF-0154-SB-012-(20.5-21.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9702	Date Analyzed:	2004-05-18	Analyzed By:	RR

Prep Batch: 8521 Date Prepared: 2004-05-13 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		47.5	mg/Kg	1	10.0
Total Cadmium		0.693	mg/Kg	1	0.100
Total Chromium		2.76	mg/Kg	1	2.50
Total Lead		8.00	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33563 - HLSF-0154-SB-112-(20.5-21.0)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9702 Date Analyzed: 2004-05-18 Analyzed By: RR
Prep Batch: 8521 Date Prepared: 2004-05-13 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		51.8	mg/Kg	1	10.0
Total Cadmium		0.714	mg/Kg	1	0.100
Total Chromium		2.77	mg/Kg	1	2.50
Total Lead		6.25	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33564 - HLSF-0154-SB-012-(26.5-27.0)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9702 Date Analyzed: 2004-05-18 Analyzed By: RR
Prep Batch: 8521 Date Prepared: 2004-05-13 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		9.65	mg/Kg	1	2.00
Total Barium		89.7	mg/Kg	1	10.0
Total Cadmium		2.93	mg/Kg	1	0.100
Total Chromium		14.2	mg/Kg	1	2.50
Total Lead		42.1	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33565 - HLSF-0154-SB-012-(31.5-32)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9702 Date Analyzed: 2004-05-18 Analyzed By: RR
Prep Batch: 8521 Date Prepared: 2004-05-13 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		117	mg/Kg	1	10.0
Total Cadmium		3.12	mg/Kg	1	0.100
Total Chromium		13.7	mg/Kg	1	2.50
Total Lead		30.2	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33566 - HLSF-0154-SB-012-(36.5-37)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9702	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8521	Date Prepared:	2004-05-13	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		93.6	mg/Kg	1	10.0
Total Cadmium		2.74	mg/Kg	1	0.100
Total Chromium		14.2	mg/Kg	1	2.50
Total Lead		15.9	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33567 - HLSF-0154-SB-012-(41.5-42.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9702	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8521	Date Prepared:	2004-05-13	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		298	mg/Kg	1	10.0
Total Cadmium		2.44	mg/Kg	1	0.100
Total Chromium		15.0	mg/Kg	1	2.50
Total Lead		61.1	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33624 - HLSF-0154-SB-013-(6.5-7.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9702	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8521	Date Prepared:	2004-05-13	Prepared By:	TP

continued . . .

sample 33624 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		19.1	mg/Kg	1	10.0
Total Cadmium		1.45	mg/Kg	1	0.100
Total Chromium		7.70	mg/Kg	1	2.50
Total Lead		10.8	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33625 - HLSF-0154-SB-013-(11.5-12.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9702	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8521	Date Prepared:	2004-05-13	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		2.93	mg/Kg	1	2.00
Total Barium		45.6	mg/Kg	1	10.0
Total Cadmium		2.07	mg/Kg	1	0.100
Total Chromium		10.3	mg/Kg	1	2.50
Total Lead		12.3	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33626 - HLSF-0154-SB-013-(16.5-17.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9702	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8521	Date Prepared:	2004-05-13	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		13.4	mg/Kg	1	10.0
Total Cadmium		0.667	mg/Kg	1	0.100
Total Chromium		2.71	mg/Kg	1	2.50
Total Lead		7.59	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33627 - HLSF-0154-SB-013-(20-20.5)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9703	Date Analyzed:	2004-05-18	Analyzed By:	RR

Prep Batch: 8521 Date Prepared: 2004-05-13 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		12.4	mg/Kg	1	10.0
Total Cadmium		0.595	mg/Kg	1	0.100
Total Chromium		2.82	mg/Kg	1	2.50
Total Lead		2.63	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33628 - HLSF-0154-SB-013-(26.5-27.0)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9703 Date Analyzed: 2004-05-18 Analyzed By: RR
Prep Batch: 8521 Date Prepared: 2004-05-13 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		5.16	mg/Kg	1	2.00
Total Barium		109	mg/Kg	1	10.0
Total Cadmium		2.94	mg/Kg	1	0.100
Total Chromium		13.2	mg/Kg	1	2.50
Total Lead		17.6	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33629 - HLSF-0154-SB-013-(30.5-31.0)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9703 Date Analyzed: 2004-05-18 Analyzed By: RR
Prep Batch: 8521 Date Prepared: 2004-05-13 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		39.0	mg/Kg	1	10.0
Total Cadmium		1.61	mg/Kg	1	0.100
Total Chromium		6.67	mg/Kg	1	2.50
Total Lead		5.16	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33630 - HLSF-0154-SB-113-(30.5-31)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9703 Date Analyzed: 2004-05-18 Analyzed By: RR
Prep Batch: 8521 Date Prepared: 2004-05-13 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		37.0	mg/Kg	1	10.0
Total Cadmium		1.40	mg/Kg	1	0.100
Total Chromium		6.41	mg/Kg	1	2.50
Total Lead		6.16	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33631 - HLSF-0154-SB-013-(35-35.5)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9703	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8521	Date Prepared:	2004-05-13	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		3.23	mg/Kg	1	2.00
Total Barium		32.9	mg/Kg	1	10.0
Total Cadmium		0.909	mg/Kg	1	0.100
Total Chromium		3.22	mg/Kg	1	2.50
Total Lead		4.36	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33632 - HLSF-0154-SB-013-(41.5-42.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9703	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8521	Date Prepared:	2004-05-13	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		219	mg/Kg	1	10.0
Total Cadmium		3.24	mg/Kg	1	0.100
Total Chromium		12.5	mg/Kg	1	2.50
Total Lead		22.0	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33633 - HLSF-0154-SB-014-(6.5-7.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9703	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8521	Date Prepared:	2004-05-13	Prepared By:	TP

continued . . .

sample 33633 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		5.60	mg/Kg	1	2.00
Total Barium		19.3	mg/Kg	1	10.0
Total Cadmium		1.42	mg/Kg	1	0.100
Total Chromium		6.26	mg/Kg	1	2.50
Total Lead		17.8	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33634 - HLSF-0154-SB-014-(11.5-12)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9703	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8521	Date Prepared:	2004-05-13	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		41.5	mg/Kg	1	10.0
Total Cadmium		1.73	mg/Kg	1	0.100
Total Chromium		8.14	mg/Kg	1	2.50
Total Lead		3.62	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33635 - HLSF-0154-SB-014-(16.5-17.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9703	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8521	Date Prepared:	2004-05-13	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		5.98	mg/Kg	1	2.00
Total Barium		40.8	mg/Kg	1	10.0
Total Cadmium		0.713	mg/Kg	1	0.100
Total Chromium		2.72	mg/Kg	1	2.50
Total Lead		2.01	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33636 - HLSF-0154-SB-014-(21.5-22.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9703	Date Analyzed:	2004-05-18	Analyzed By:	RR

Prep Batch: 8521 Date Prepared: 2004-05-13 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		3.00	mg/Kg	1	2.00
Total Barium		132	mg/Kg	1	10.0
Total Cadmium		2.08	mg/Kg	1	0.100
Total Chromium		11.0	mg/Kg	1	2.50
Total Lead		18.1	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33637 - HLSF-0154-SB-014-(30-30.5)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9683 Date Analyzed: 2004-05-17 Analyzed By: RR
Prep Batch: 8557 Date Prepared: 2004-05-14 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		6.51	mg/Kg	1	1.00
Total Barium		115	mg/Kg	1	1.00
Total Cadmium		1.55	mg/Kg	1	0.500
Total Chromium		14.5	mg/Kg	1	1.00
Total Lead		19.4	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33638 - HLSF-0154-SB-114-(30-30.5)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9683 Date Analyzed: 2004-05-17 Analyzed By: RR
Prep Batch: 8557 Date Prepared: 2004-05-14 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		6.35	mg/Kg	1	1.00
Total Barium		106	mg/Kg	1	1.00
Total Cadmium		1.42	mg/Kg	1	0.500
Total Chromium		14.6	mg/Kg	1	1.00
Total Lead		24.1	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33639 - HLSF-0154-SB-014-(36.5-37)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9683 Date Analyzed: 2004-05-17 Analyzed By: RR
Prep Batch: 8557 Date Prepared: 2004-05-14 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		4.84	mg/Kg	1	1.00
Total Barium		138	mg/Kg	1	1.00
Total Cadmium		1.35	mg/Kg	1	0.500
Total Chromium		11.7	mg/Kg	1	1.00
Total Lead		17.1	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33640 - HLSF-0154-SB-014-(41.5-42)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9683	Date Analyzed:	2004-05-17	Analyzed By:	RR
Prep Batch:	8557	Date Prepared:	2004-05-14	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		9.48	mg/Kg	1	1.00
Total Barium		34.5	mg/Kg	1	1.00
Total Cadmium		0.878	mg/Kg	1	0.500
Total Chromium		8.69	mg/Kg	1	1.00
Total Lead		11.2	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33641 - HLSF-0154-SB-015-(6.5-7.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9683	Date Analyzed:	2004-05-17	Analyzed By:	RR
Prep Batch:	8557	Date Prepared:	2004-05-14	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		4.98	mg/Kg	1	1.00
Total Barium		80.9	mg/Kg	1	1.00
Total Cadmium		0.942	mg/Kg	1	0.500
Total Chromium		8.77	mg/Kg	1	1.00
Total Lead		9.56	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33642 - HLSF-0154-SB-015-(11.5-12.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9683	Date Analyzed:	2004-05-17	Analyzed By:	RR
Prep Batch:	8557	Date Prepared:	2004-05-14	Prepared By:	TP

continued . . .

sample 33642 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		3.19	mg/Kg	1	1.00
Total Barium		29.4	mg/Kg	1	1.00
Total Cadmium		0.522	mg/Kg	1	0.500
Total Chromium		4.62	mg/Kg	1	1.00
Total Lead		6.32	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33643 - HLSF-0154-SB-015-(16.5-17.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9683	Date Analyzed:	2004-05-17	Analyzed By:	RR
Prep Batch:	8557	Date Prepared:	2004-05-14	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		10.9	mg/Kg	1	1.00
Total Barium		108	mg/Kg	1	1.00
Total Cadmium		1.62	mg/Kg	1	0.500
Total Chromium		12.1	mg/Kg	1	1.00
Total Lead		22.3	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33644 - HLSF-0154-SB-015-(21.5-22)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9684	Date Analyzed:	2004-05-17	Analyzed By:	RR
Prep Batch:	8557	Date Prepared:	2004-05-14	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		6.29	mg/Kg	1	1.00
Total Barium		151	mg/Kg	1	1.00
Total Cadmium		1.60	mg/Kg	1	0.500
Total Chromium		15.5	mg/Kg	1	1.00
Total Lead		19.6	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33645 - HLSF-0154-SB-115-(21.5-22)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9684	Date Analyzed:	2004-05-17	Analyzed By:	RR

Prep Batch: 8557 Date Prepared: 2004-05-14 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		4.81	mg/Kg	1	1.00
Total Barium		32.6	mg/Kg	1	1.00
Total Cadmium		0.603	mg/Kg	1	0.500
Total Chromium		6.77	mg/Kg	1	1.00
Total Lead		10.1	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33646 - HLSF-0154-SB-015-(26.5-27)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9684 Date Analyzed: 2004-05-17 Analyzed By: RR
Prep Batch: 8557 Date Prepared: 2004-05-14 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		6.18	mg/Kg	1	1.00
Total Barium		33.5	mg/Kg	1	1.00
Total Cadmium		<0.500	mg/Kg	1	0.500
Total Chromium		3.99	mg/Kg	1	1.00
Total Lead		5.82	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33647 - HLSF-0154-SB-015-(31.5-32)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9684 Date Analyzed: 2004-05-17 Analyzed By: RR
Prep Batch: 8557 Date Prepared: 2004-05-14 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		6.32	mg/Kg	1	1.00
Total Barium		181	mg/Kg	1	1.00
Total Cadmium		1.75	mg/Kg	1	0.500
Total Chromium		12.7	mg/Kg	1	1.00
Total Lead		20.6	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33648 - HLSF-0154-SB-015-(36.5-37)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9684 Date Analyzed: 2004-05-17 Analyzed By: RR
Prep Batch: 8557 Date Prepared: 2004-05-14 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		6.34	mg/Kg	1	1.00
Total Barium		39.3	mg/Kg	1	1.00
Total Cadmium		<0.500	mg/Kg	1	0.500
Total Chromium		4.18	mg/Kg	1	1.00
Total Lead		5.28	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33649 - HLSF-0154-SB-015-(41.5-42)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9684	Date Analyzed:	2004-05-17	Analyzed By:	RR
Prep Batch:	8557	Date Prepared:	2004-05-14	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		4.97	mg/Kg	1	1.00
Total Barium		67.6	mg/Kg	1	1.00
Total Cadmium		0.819	mg/Kg	1	0.500
Total Chromium		8.28	mg/Kg	1	1.00
Total Lead		8.99	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33650 - HLSF-0154-SB-016-(6.5-7.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9684	Date Analyzed:	2004-05-17	Analyzed By:	RR
Prep Batch:	8557	Date Prepared:	2004-05-14	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		3.00	mg/Kg	1	1.00
Total Barium		12.6	mg/Kg	1	1.00
Total Cadmium		0.612	mg/Kg	1	0.500
Total Chromium		5.39	mg/Kg	1	1.00
Total Lead		7.37	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33651 - HLSF-0154-SB-016-(11.5-12.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9684	Date Analyzed:	2004-05-17	Analyzed By:	RR
Prep Batch:	8557	Date Prepared:	2004-05-14	Prepared By:	TP

continued . . .

sample 33651 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		3.23	mg/Kg	1	1.00
Total Barium		70.6	mg/Kg	1	1.00
Total Cadmium		0.536	mg/Kg	1	0.500
Total Chromium		5.00	mg/Kg	1	1.00
Total Lead		5.86	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33652 - HLSF-0154-SB-016-(16.5-17.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9684	Date Analyzed:	2004-05-17	Analyzed By:	RR
Prep Batch:	8557	Date Prepared:	2004-05-14	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		1.77	mg/Kg	1	1.00
Total Barium		25.1	mg/Kg	1	1.00
Total Cadmium		<0.500	mg/Kg	1	0.500
Total Chromium		3.14	mg/Kg	1	1.00
Total Lead		4.32	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33653 - HLSF-0154-SB-016-(20.5-21.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9684	Date Analyzed:	2004-05-17	Analyzed By:	RR
Prep Batch:	8557	Date Prepared:	2004-05-14	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		2.30	mg/Kg	1	1.00
Total Barium		23.4	mg/Kg	1	1.00
Total Cadmium		<0.500	mg/Kg	1	0.500
Total Chromium		2.65	mg/Kg	1	1.00
Total Lead		5.08	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33654 - HLSF-0154-SB-116-(20.5-21.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9723	Date Analyzed:	2004-05-18	Analyzed By:	RR

Prep Batch: 8605 Date Prepared: 2004-05-17 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		75.4	mg/Kg	1	10.0
Total Cadmium		0.938	mg/Kg	1	0.100
Total Chromium		5.02	mg/Kg	1	2.50
Total Lead		<1.00	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33655 - HLSF-0154-SB-016-(26.5-27)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9723 Date Analyzed: 2004-05-18 Analyzed By: RR
Prep Batch: 8605 Date Prepared: 2004-05-17 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		4.07	mg/Kg	1	2.00
Total Barium		73.2	mg/Kg	1	10.0
Total Cadmium		2.57	mg/Kg	1	0.100
Total Chromium		12.8	mg/Kg	1	2.50
Total Lead		11.5	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33656 - HLSF-0154-SB-016-(30.5-31.0)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9723 Date Analyzed: 2004-05-18 Analyzed By: RR
Prep Batch: 8605 Date Prepared: 2004-05-17 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		167	mg/Kg	1	10.0
Total Cadmium		1.27	mg/Kg	1	0.100
Total Chromium		5.84	mg/Kg	1	2.50
Total Lead		7.50	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33657 - HLSF-0154-SB-016-(35.5-36)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9723 Date Analyzed: 2004-05-18 Analyzed By: RR
Prep Batch: 8605 Date Prepared: 2004-05-17 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		3.00	mg/Kg	1	2.00
Total Barium		71.5	mg/Kg	1	10.0
Total Cadmium		2.67	mg/Kg	1	0.100
Total Chromium		14.1	mg/Kg	1	2.50
Total Lead		28.8	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33658 - HLSF-0154-SB-016-(41.5-42.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9723	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8605	Date Prepared:	2004-05-17	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		2.34	mg/Kg	1	2.00
Total Barium		45.5	mg/Kg	1	10.0
Total Cadmium		2.52	mg/Kg	1	0.100
Total Chromium		13.1	mg/Kg	1	2.50
Total Lead		12.6	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33659 - HLSF-0154-SB-014-(26.5-27)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9723	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8605	Date Prepared:	2004-05-17	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		80.2	mg/Kg	1	10.0
Total Cadmium		3.12	mg/Kg	1	0.100
Total Chromium		5.16	mg/Kg	1	2.50
Total Lead		5.90	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33836 - HLSF-0154-SB-017-(6.5-7.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9723	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8605	Date Prepared:	2004-05-17	Prepared By:	TP

continued . . .

sample 33836 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		2.95	mg/Kg	1	2.00
Total Barium		69.0	mg/Kg	1	10.0
Total Cadmium		0.767	mg/Kg	1	0.100
Total Chromium		3.58	mg/Kg	1	2.50
Total Lead		5.93	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33837 - HLSF-0154-SB-017-(11.5-12.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9723	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8605	Date Prepared:	2004-05-17	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		3.29	mg/Kg	1	2.00
Total Barium		4200	mg/Kg	1	10.0
Total Cadmium		2.23	mg/Kg	1	0.100
Total Chromium		10.6	mg/Kg	1	2.50
Total Lead		11.4	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33838 - HLSF-0154-SB-017-(16.5-17.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9723	Date Analyzed:	2004-05-18	Analyzed By:	RR
Prep Batch:	8605	Date Prepared:	2004-05-17	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		4.09	mg/Kg	1	2.00
Total Barium		22.9	mg/Kg	1	10.0
Total Cadmium		1.20	mg/Kg	1	0.100
Total Chromium		4.74	mg/Kg	1	2.50
Total Lead		6.66	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33839 - HLSF-0154-SB-017-(21.0-21.5)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9756	Date Analyzed:	2004-05-19	Analyzed By:	RR

Prep Batch: 8634 Date Prepared: 2004-05-18 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		51.8	mg/Kg	1	10.0
Total Cadmium		0.597	mg/Kg	1	0.100
Total Chromium		<2.50	mg/Kg	1	2.50
Total Lead		2.42	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33840 - HLSF-0154-SB-017-(26.5-27)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9756 Date Analyzed: 2004-05-19 Analyzed By: RR
Prep Batch: 8634 Date Prepared: 2004-05-18 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		114	mg/Kg	1	10.0
Total Cadmium		2.75	mg/Kg	1	0.100
Total Chromium		13.0	mg/Kg	1	2.50
Total Lead		16.9	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33841 - HLSF-0154-SB-017-(31.5-32)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9756 Date Analyzed: 2004-05-19 Analyzed By: RR
Prep Batch: 8634 Date Prepared: 2004-05-18 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		147	mg/Kg	1	10.0
Total Cadmium		2.82	mg/Kg	1	0.100
Total Chromium		12.7	mg/Kg	1	2.50
Total Lead		20.5	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33842 - HLSF-0154-SB-017-(36.5-37)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9756 Date Analyzed: 2004-05-19 Analyzed By: RR
Prep Batch: 8634 Date Prepared: 2004-05-18 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		32.5	mg/Kg	1	10.0
Total Cadmium		0.924	mg/Kg	1	0.100
Total Chromium		5.55	mg/Kg	1	2.50
Total Lead		1.08	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33843 - HLSF-0154-SB-017-(41.5-42)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9756	Date Analyzed:	2004-05-19	Analyzed By:	RR
Prep Batch:	8634	Date Prepared:	2004-05-18	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		72.0	mg/Kg	1	10.0
Total Cadmium		2.62	mg/Kg	1	0.100
Total Chromium		15.8	mg/Kg	1	2.50
Total Lead		21.7	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33844 - HLSF-0154-SB-018-(6.5-7.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9758	Date Analyzed:	2004-05-19	Analyzed By:	RR
Prep Batch:	8634	Date Prepared:	2004-05-18	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		99.8	mg/Kg	1	10.0
Total Cadmium		1.57	mg/Kg	1	0.100
Total Chromium		7.90	mg/Kg	1	2.50
Total Lead		6.72	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33845 - HLSF-0154-SB-018-(11.5-12.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9758	Date Analyzed:	2004-05-19	Analyzed By:	RR
Prep Batch:	8634	Date Prepared:	2004-05-18	Prepared By:	TP

continued . . .

sample 33845 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		115	mg/Kg	1	10.0
Total Cadmium		2.03	mg/Kg	1	0.100
Total Chromium		9.68	mg/Kg	1	2.50
Total Lead		9.51	mg/Kg	1	1.00
Total Selenium		3.31	mg/Kg	1	1.00

Sample: 33846 - HLSF-0154-SB-018-(16.5-17)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9758	Date Analyzed:	2004-05-19	Analyzed By:	RR
Prep Batch:	8634	Date Prepared:	2004-05-18	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		33.3	mg/Kg	1	10.0
Total Cadmium		0.720	mg/Kg	1	0.100
Total Chromium		3.86	mg/Kg	1	2.50
Total Lead		1.65	mg/Kg	1	1.00
Total Selenium		1.41	mg/Kg	1	1.00

Sample: 33847 - HLSF-0154-SB-018-(20.5-21.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9758	Date Analyzed:	2004-05-19	Analyzed By:	RR
Prep Batch:	8634	Date Prepared:	2004-05-18	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		24.7	mg/Kg	1	10.0
Total Cadmium		0.814	mg/Kg	1	0.100
Total Chromium		2.64	mg/Kg	1	2.50
Total Lead		<1.00	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33848 - HLSF-0154-SB-018-(26.5-27)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9758	Date Analyzed:	2004-05-19	Analyzed By:	RR

Prep Batch: 8634 Date Prepared: 2004-05-18 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		3.02	mg/Kg	1	2.00
Total Barium		63.8	mg/Kg	1	10.0
Total Cadmium		1.63	mg/Kg	1	0.100
Total Chromium		8.38	mg/Kg	1	2.50
Total Lead		8.55	mg/Kg	1	1.00
Total Selenium		2.27	mg/Kg	1	1.00

Sample: 33849 - HLSF-0154-SB-018-(30.5-31)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9758 Date Analyzed: 2004-05-19 Analyzed By: RR
Prep Batch: 8634 Date Prepared: 2004-05-18 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		53.9	mg/Kg	1	10.0
Total Cadmium		0.921	mg/Kg	1	0.100
Total Chromium		4.03	mg/Kg	1	2.50
Total Lead		5.17	mg/Kg	1	1.00
Total Selenium		3.03	mg/Kg	1	1.00

Sample: 33850 - HLSF-0154-SB-018-(36.5-37)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9758 Date Analyzed: 2004-05-19 Analyzed By: RR
Prep Batch: 8634 Date Prepared: 2004-05-18 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		51.7	mg/Kg	1	10.0
Total Cadmium		2.87	mg/Kg	1	0.100
Total Chromium		15.6	mg/Kg	1	2.50
Total Lead		11.1	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 33851 - HLSF-0154-SB-018-(41.5-42)

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 9758 Date Analyzed: 2004-05-19 Analyzed By: RR
Prep Batch: 8634 Date Prepared: 2004-05-18 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		154	mg/Kg	1	10.0
Total Cadmium		3.28	mg/Kg	1	0.100
Total Chromium		15.6	mg/Kg	1	2.50
Total Lead		21.6	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 34368 - HLSF-0154-SB-019-(10-12)

Analysis:	Pb, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9811	Date Analyzed:	2004-05-20	Analyzed By:	RR
Prep Batch:	8680	Date Prepared:	2004-05-19	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		5.45	mg/Kg	1	1.00

Sample: 34369 - HLSF-0154-SB-019-(20-22)

Analysis:	Pb, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9811	Date Analyzed:	2004-05-20	Analyzed By:	RR
Prep Batch:	8680	Date Prepared:	2004-05-19	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		7.86	mg/Kg	1	1.00

Sample: 34370 - HLSF-0154-SB-020-(10-12)

Analysis:	Pb, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9811	Date Analyzed:	2004-05-20	Analyzed By:	RR
Prep Batch:	8680	Date Prepared:	2004-05-19	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		2.80	mg/Kg	1	1.00

Sample: 34371 - HLSF-0154-SB-020-(20-22

Analysis:	Pb, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9813	Date Analyzed:	2004-05-20	Analyzed By:	RR
Prep Batch:	8680	Date Prepared:	2004-05-19	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		2.53	mg/Kg	1	1.00

Sample: 34372 - HLSF-0154-SB-021-(10-12)

Analysis:	Pb, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9813	Date Analyzed:	2004-05-20	Analyzed By:	RR
Prep Batch:	8680	Date Prepared:	2004-05-19	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		2.16	mg/Kg	1	1.00

Sample: 34373 - HLSF-0154-SB-021-(20-22)

Analysis:	Pb, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9813	Date Analyzed:	2004-05-20	Analyzed By:	RR
Prep Batch:	8680	Date Prepared:	2004-05-19	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		5.18	mg/Kg	1	1.00

Sample: 34374 - HLSF-0154-SB-022-(10-12)

Analysis:	Pb, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9813	Date Analyzed:	2004-05-20	Analyzed By:	RR
Prep Batch:	8680	Date Prepared:	2004-05-19	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		1.66	mg/Kg	1	1.00

Sample: 34375 - HLSF-0154-SB-022-(20-22)

Analysis:	Pb, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9813	Date Analyzed:	2004-05-20	Analyzed By:	RR
Prep Batch:	8680	Date Prepared:	2004-05-19	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		3.96	mg/Kg	1	1.00

Sample: 34376 - HLSF-0154-SB-023-(10-12)

Analysis:	Pb, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9813	Date Analyzed:	2004-05-20	Analyzed By:	RR
Prep Batch:	8680	Date Prepared:	2004-05-19	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		2.87	mg/Kg	1	1.00

Sample: 34377 - HLSF-0154-SB-023-(20-22)

Analysis:	Pb, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9813	Date Analyzed:	2004-05-20	Analyzed By:	RR
Prep Batch:	8680	Date Prepared:	2004-05-19	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		3.05	mg/Kg	1	1.00

Sample: 34378 - HLSF-0154-SC-004-0504

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9813	Date Analyzed:	2004-05-20	Analyzed By:	RR
Prep Batch:	8680	Date Prepared:	2004-05-19	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<1.00	mg/Kg	1	1.00
Total Barium		49.0	mg/Kg	1	1.00
Total Cadmium		<0.500	mg/Kg	1	0.500
Total Chromium		8.18	mg/Kg	1	1.00
Total Lead		3.00	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 34379 - HLSF-0154-SC-005-0504

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	9813	Date Analyzed:	2004-05-20	Analyzed By:	RR
Prep Batch:	8680	Date Prepared:	2004-05-19	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<1.00	mg/Kg	1	1.00
Total Barium		77.3	mg/Kg	1	1.00
Total Cadmium		<0.500	mg/Kg	1	0.500
Total Chromium		20.3	mg/Kg	1	1.00
Total Lead		5.30	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Method Blank (1) QC Batch: 9683

Parameter	Flag	Result	Units	RL
Total Silver		<0.200	mg/Kg	0.2
Total Arsenic		<1.00	mg/Kg	1
Total Barium		<1.00	mg/Kg	1
Total Cadmium		<0.500	mg/Kg	0.5

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method blank continued . . .

Parameter	Flag	Result	Units	RL
Total Chromium		<1.00	mg/Kg	1
Total Lead		<1.00	mg/Kg	1
Total Selenium		<1.00	mg/Kg	1

Method Blank (1) QC Batch: 9684

Parameter	Flag	Result	Units	RL
Total Silver		<0.200	mg/Kg	0.2
Total Arsenic		<1.00	mg/Kg	1
Total Barium		<1.00	mg/Kg	1
Total Cadmium		<0.500	mg/Kg	0.5
Total Chromium		<1.00	mg/Kg	1
Total Lead		<1.00	mg/Kg	1
Total Selenium		<1.00	mg/Kg	1

Method Blank (1) QC Batch: 9698

Parameter	Flag	Result	Units	RL
Total Silver		<0.200	mg/Kg	0.2
Total Arsenic		<2.00	mg/Kg	2
Total Barium		<10.0	mg/Kg	10
Total Cadmium		<0.100	mg/Kg	0.1
Total Chromium		<2.50	mg/Kg	2.5
Total Lead		<1.00	mg/Kg	1
Total Selenium		<1.00	mg/Kg	1

Method Blank (1) QC Batch: 9699

Parameter	Flag	Result	Units	RL
Total Silver		<0.200	mg/Kg	0.2
Total Arsenic		<2.00	mg/Kg	2
Total Barium		<10.0	mg/Kg	10
Total Cadmium		<0.100	mg/Kg	0.1
Total Chromium		<2.50	mg/Kg	2.5
Total Lead		<1.00	mg/Kg	1
Total Selenium		<1.00	mg/Kg	1

Method Blank (1) QC Batch: 9702

Parameter	Flag	Result	Units	RL
Total Silver		<0.200	mg/Kg	0.2
Total Arsenic		<2.00	mg/Kg	2
Total Barium		<10.0	mg/Kg	10
Total Cadmium		<0.100	mg/Kg	0.1
Total Chromium		<2.50	mg/Kg	2.5
Total Lead		<1.00	mg/Kg	1
Total Selenium		<1.00	mg/Kg	1

Method Blank (1) QC Batch: 9703

Parameter	Flag	Result	Units	RL
Total Silver		<0.200	mg/Kg	0.2
Total Arsenic		<2.00	mg/Kg	2
Total Barium		<10.0	mg/Kg	10
Total Cadmium		<0.100	mg/Kg	0.1
Total Chromium		<2.50	mg/Kg	2.5
Total Lead		<1.00	mg/Kg	1
Total Selenium		<1.00	mg/Kg	1

Method Blank (1) QC Batch: 9723

Parameter	Flag	Result	Units	RL
Total Silver		<0.200	mg/Kg	0.2
Total Arsenic		<2.00	mg/Kg	2
Total Barium		<10.0	mg/Kg	10
Total Cadmium		<0.100	mg/Kg	0.1
Total Chromium		<2.50	mg/Kg	2.5
Total Lead		<1.00	mg/Kg	1
Total Selenium		<1.00	mg/Kg	1

Method Blank (1) QC Batch: 9756

Parameter	Flag	Result	Units	RL
Total Silver		<0.200	mg/Kg	0.2
Total Arsenic		<2.00	mg/Kg	2
Total Barium		<10.0	mg/Kg	10
Total Cadmium		<0.100	mg/Kg	0.1
Total Chromium		<2.50	mg/Kg	2.5
Total Lead		<1.00	mg/Kg	1
Total Selenium		<1.00	mg/Kg	1

Method Blank (1) QC Batch: 9758

Parameter	Flag	Result	Units	RL
Total Silver		<0.200	mg/Kg	0.2
Total Arsenic		<2.00	mg/Kg	2
Total Barium		<10.0	mg/Kg	10
Total Cadmium		<0.100	mg/Kg	0.1
Total Chromium		<2.50	mg/Kg	2.5
Total Lead		<1.00	mg/Kg	1
Total Selenium		<1.00	mg/Kg	1

Method Blank (1) QC Batch: 9811

Parameter	Flag	Result	Units	RL
Total Lead		<1.00	mg/Kg	1

Method Blank (1) QC Batch: 9813

Parameter	Flag	Result	Units	RL
Total Lead		<1.00	mg/Kg	1

Method Blank (1) QC Batch: 9813

Parameter	Flag	Result	Units	RL
Total Silver		<0.200	mg/Kg	0.2
Total Arsenic		<1.00	mg/Kg	1
Total Barium		<1.00	mg/Kg	1
Total Cadmium		<0.500	mg/Kg	0.5
Total Chromium		<1.00	mg/Kg	1
Total Lead		<1.00	mg/Kg	1
Total Selenium		<1.00	mg/Kg	1

Laboratory Control Spike (LCS-1) QC Batch: 9683

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	12.5	12.3	mg/Kg	1	12.5	<0.0444	100	2	85 - 115	20
Total Arsenic	48.5	47.3	mg/Kg	1	50.0	<0.228	97	2	85 - 115	20
Total Barium	103	101	mg/Kg	1	100	<0.601	103	2	85 - 115	20
Total Cadmium	24.9	24.4	mg/Kg	1	25.0	<0.0795	100	2	85 - 115	20
Total Chromium	10.9	10.6	mg/Kg	1	10.0	<0.125	109	3	85 - 115	20

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control spikes continued . . .

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Lead	51.3	50.3	mg/Kg	1	50.0	<0.650	103	2	85 - 115	20
Total Selenium	43.9	43.2	mg/Kg	1	50.0	<0.767	88	2	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 9684

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	12.5	12.3	mg/Kg	1	12.5	<0.0444	100	2	85 - 115	20
Total Arsenic	48.5	47.3	mg/Kg	1	50.0	<0.228	97	2	85 - 115	20
Total Barium	103	101	mg/Kg	1	100	<0.601	103	2	85 - 115	20
Total Cadmium	24.9	24.4	mg/Kg	1	25.0	<0.0795	100	2	85 - 115	20
Total Chromium	10.9	10.6	mg/Kg	1	10.0	<0.125	109	3	85 - 115	20
Total Lead	51.3	50.3	mg/Kg	1	50.0	<0.650	103	2	85 - 115	20
Total Selenium	43.9	43.2	mg/Kg	1	50.0	<0.767	88	2	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 9698

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	12.0	11.6	mg/Kg	1	12.5	<0.00444	96	3	85 - 113	20
Total Arsenic	45.8	46.1	mg/Kg	1	50.0	<0.228	92	1	85 - 111	20
Total Barium	94.6	92.1	mg/Kg	1	100	<0.0601	95	3	85 - 103	20
Total Cadmium	24.2	23.1	mg/Kg	1	25.0	<0.00794	97	5	85 - 115	20
Total Chromium	10.2	9.88	mg/Kg	1	10.0	<0.0125	102	3	85 - 115	20
Total Lead	51.4	47.0	mg/Kg	1	50.0	<0.367	103	9	85 - 115	20
Total Selenium	42.8	43.9	mg/Kg	1	50.0	<0.0767	86	2	85 - 113	20

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

Laboratory Control Spike (LCS-1) QC Batch: 9699

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	12.0	11.6	mg/Kg	1	12.5	<0.00444	96	3	85 - 113	20
Total Arsenic	45.8	46.1	mg/Kg	1	50.0	<0.228	92	1	85 - 111	20
Total Barium	94.6	92.1	mg/Kg	1	100	<0.0601	95	3	85 - 103	20
Total Cadmium	24.2	23.1	mg/Kg	1	25.0	<0.00794	97	5	85 - 115	20
Total Chromium	10.2	9.88	mg/Kg	1	10.0	<0.0125	102	3	85 - 115	20
Total Lead	51.4	47.0	mg/Kg	1	50.0	<0.367	103	9	85 - 115	20
Total Selenium	42.8	43.9	mg/Kg	1	50.0	<0.0767	86	2	85 - 113	20

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

Laboratory Control Spike (LCS-1) QC Batch: 9702

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	11.5	10.9	mg/Kg	1	12.5	<0.00444	92	5	85 - 113	20
Total Arsenic	42.5	43.6	mg/Kg	1	50.0	<0.228	85	2	85 - 111	20
Total Barium	90.4	89.4	mg/Kg	1	100	<0.0601	90	1	85 - 103	20
Total Cadmium	21.8	21.8	mg/Kg	1	25.0	<0.00794	87	0	85 - 115	20
Total Chromium	8.73	8.82	mg/Kg	1	10.0	<0.0125	87	1	85 - 115	20
Total Lead	48.1	44.5	mg/Kg	1	50.0	<0.367	96	8	85 - 115	20
Total Selenium	42.8	43.5	mg/Kg	1	50.0	<0.0767	86	2	85 - 113	20

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

Laboratory Control Spike (LCS-1) QC Batch: 9703

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	11.5	10.9	mg/Kg	1	12.5	<0.00444	92	5	85 - 113	20
Total Arsenic	42.5	43.6	mg/Kg	1	50.0	<0.228	85	2	85 - 111	20
Total Barium	90.4	89.4	mg/Kg	1	100	<0.0601	90	1	85 - 103	20
Total Cadmium	21.8	21.8	mg/Kg	1	25.0	<0.00794	87	0	85 - 115	20
Total Chromium	8.73	8.82	mg/Kg	1	10.0	<0.0125	87	1	85 - 115	20
Total Lead	48.1	44.5	mg/Kg	1	50.0	<0.367	96	8	85 - 115	20
Total Selenium	42.8	43.5	mg/Kg	1	50.0	<0.0767	86	2	85 - 113	20

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

Laboratory Control Spike (LCS-1) QC Batch: 9723

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	11.1	11.7	mg/Kg	1	12.5	<0.00444	89	5	85 - 113	20
Total Arsenic	43.8	47.2	mg/Kg	1	50.0	<0.228	88	7	85 - 111	20
Total Barium	94.8	92.8	mg/Kg	1	100	<0.0601	95	2	85 - 103	20
Total Cadmium	24.3	23.8	mg/Kg	1	25.0	<0.00794	97	2	85 - 115	20
Total Chromium	9.45	9.40	mg/Kg	1	10.0	<0.0125	94	0	85 - 115	20
Total Lead	48.9	47.7	mg/Kg	1	50.0	<0.367	98	2	85 - 115	20
Total Selenium	42.9	43.8	mg/Kg	1	50.0	<0.0767	86	2	85 - 113	20

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

Laboratory Control Spike (LCS-1) QC Batch: 9756

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	11.3	11.9	mg/Kg	1	12.5	<0.00444	90	5	85 - 113	20
Total Arsenic	42.8	42.9	mg/Kg	1	50.0	<0.228	86	0	85 - 111	20
Total Barium	86.9	91.3	mg/Kg	1	100	<0.0601	87	5	85 - 103	20
Total Cadmium	21.2	22.6	mg/Kg	1	25.0	<0.00794	85	6	85 - 115	20
Total Chromium	8.90	8.57	mg/Kg	1	10.0	<0.0125	89	4	85 - 115	20
Total Lead	44.7	43.9	mg/Kg	1	50.0	<0.367	89	2	85 - 115	20
Total Selenium	43.2	43.4	mg/Kg	1	50.0	<0.0767	86	0	85 - 113	20

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

Laboratory Control Spike (LCS-1) QC Batch: 9758

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	11.3	11.9	mg/Kg	1	12.5	<0.00444	90	5	85 - 113	20
Total Arsenic	42.8	42.9	mg/Kg	1	50.0	<0.228	86	0	85 - 111	20
Total Barium	86.9	91.3	mg/Kg	1	100	<0.0601	87	5	85 - 103	20
Total Cadmium	21.2	22.6	mg/Kg	1	25.0	<0.00794	85	6	85 - 115	20
Total Chromium	8.90	8.57	mg/Kg	1	10.0	<0.0125	89	4	85 - 115	20
Total Lead	44.7	43.9	mg/Kg	1	50.0	<0.367	89	2	85 - 115	20
Total Selenium	43.2	43.4	mg/Kg	1	50.0	<0.0767	86	0	85 - 113	20

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

Laboratory Control Spike (LCS-1) QC Batch: 9811

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Lead	50.4	54.0	mg/Kg	1	50.0	<0.650	101	7	85 - 115	20

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

Laboratory Control Spike (LCS-1) QC Batch: 9813

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Lead	50.4	54.0	mg/Kg	1	50.0	<0.650	101	7	85 - 115	20

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

Laboratory Control Spike (LCS-1) QC Batch: 9813

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	11.9	11.6	mg/Kg	1	12.5	<0.0444	95	2	85 - 115	20
Total Arsenic	46.3	48.7	mg/Kg	1	50.0	<0.228	93	5	85 - 115	20
Total Barium	94.2	91.2	mg/Kg	1	100	<0.601	94	3	85 - 115	20
Total Cadmium	24.5	21.3	mg/Kg	1	25.0	<0.0795	98	14	85 - 115	20
Total Chromium	9.51	9.46	mg/Kg	1	10.0	<0.125	95	0	85 - 115	20
Total Lead	50.4	54.0	mg/Kg	1	50.0	<0.650	101	7	85 - 115	20
Total Selenium	42.4	45.5	mg/Kg	1	50.0	<0.767	85	7	75 - 125	20

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

Matrix Spike (MS-1) QC Batch: 9683

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	12.0	12.4	mg/Kg	1	12.5	<0.0444	96	3	75 - 125	20
Total Arsenic	51.5	51.7	mg/Kg	1	50.0	6.51	90	0	75 - 125	20
Total Barium	217	214	mg/Kg	1	100	115	102	1	75 - 125	20
Total Cadmium	23.9	24.8	mg/Kg	1	25.0	1.55	89	4	75 - 125	20

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matrix spikes continued . . .

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Chromium	24.7	25.4	mg/Kg	1	10.0	14.5	102	3	75 - 125	20
Total Lead	68.7	71.8	mg/Kg	1	50.0	19.4	99	4	75 - 125	20
Total Selenium	39.9	42.0	mg/Kg	1	50.0	<0.767	80	5	75 - 125	20

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

Matrix Spike (MS-1) QC Batch: 9684

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	12.6	12.4	mg/Kg	1	12.5	<0.0444	101	2	75 - 125	20
Total Arsenic	56.2	55.3	mg/Kg	1	50.0	6.18	100	2	75 - 125	20
Total Barium	139	136	mg/Kg	1	100	33.5	106	2	75 - 125	20
Total Cadmium	24.6	24.4	mg/Kg	1	25.0	0.437	97	1	75 - 125	20
Total Chromium	13.6	14.1	mg/Kg	1	10.0	3.99	96	4	75 - 125	20
Total Lead	64.6	66.7	mg/Kg	1	50.0	5.82	118	3	75 - 125	20
Total Selenium	39.2	39.2	mg/Kg	1	50.0	<0.767	78	0	75 - 125	20

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

Matrix Spike (MS-1) QC Batch: 9698

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	13.6	13.9	mg/Kg	1	12.5	<0.00444	109	2	75 - 125	20
Total Arsenic	54.3	56.2	mg/Kg	1	50.0	5.91	97	3	75 - 125	20
Total Barium	134	152	mg/Kg	1	100	31.2	103	12	75 - 125	20
Total Cadmium	28.1	29.4	mg/Kg	1	25.0	2.46	102	4	75 - 125	20
Total Chromium	24.9	25.8	mg/Kg	1	10.0	13.8	111	4	75 - 125	20
Total Lead	79.9	78.8	mg/Kg	1	50.0	24.3	111	1	75 - 125	20
Total Selenium	43.5	47.5	mg/Kg	1	50.0	<0.0767	87	9	75 - 125	20

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

Matrix Spike (MS-1) QC Batch: 9699

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	14.2	14.2	mg/Kg	1	12.5	<0.00444	114	0	75 - 125	20
Total Arsenic	46.2	48.6	mg/Kg	1	50.0	2.18	88	5	75 - 125	20
Total Barium	199	218	mg/Kg	1	100	109	90	9	75 - 125	20
Total Cadmium	26.2	25.6	mg/Kg	1	25.0	1.93	97	2	75 - 125	20
Total Chromium	21.3	20.8	mg/Kg	1	10.0	10.1	112	2	75 - 125	20
Total Lead	72.5	69.0	mg/Kg	1	50.0	17.5	110	5	75 - 125	20
Total Selenium	39.1	40.0	mg/Kg	1	50.0	<0.0767	78	2	75 - 125	20

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

Matrix Spike (MS-1) QC Batch: 9702

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	13.9	14.6	mg/Kg	1	12.5	<0.00444	111	5	75 - 125	20
Total Arsenic	40.8	44.0	mg/Kg	1	50.0	<0.228	82	8	75 - 125	20
Total Barium	139	141	mg/Kg	1	100	28.1	111	1	75 - 125	20
Total Cadmium	22.6	25.1	mg/Kg	1	25.0	1.47	84	10	75 - 125	20
Total Chromium	17.1	19.4	mg/Kg	1	10.0	7.53	96	13	75 - 125	20
Total Lead	68.4	73.7	mg/Kg	1	50.0	15	107	7	75 - 125	20
Total Selenium	38.1	40.7	mg/Kg	1	50.0	<0.0767	76	6	75 - 125	20

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

Matrix Spike (MS-1) QC Batch: 9703

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	12.1	12.1	mg/Kg	1	12.5	<0.00444	97	0	75 - 125	20
Total Arsenic	44.8	45.9	mg/Kg	1	50.0	<0.228	90	2	75 - 125	20
Total Barium	117	115	mg/Kg	1	100	12.4	105	2	75 - 125	20
Total Cadmium	21.8	21.7	mg/Kg	1	25.0	0.595	85	0	75 - 125	20
Total Chromium	12.0	12.5	mg/Kg	1	10.0	2.82	92	4	75 - 125	20
Total Lead	55.3	57.8	mg/Kg	1	50.0	2.63	105	4	75 - 125	20
Total Selenium	38.2	38.9	mg/Kg	1	50.0	<0.0767	76	2	75 - 125	20

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

Matrix Spike (MS-1) QC Batch: 9723

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	13.5	12.8	mg/Kg	1	12.5	<0.00444	108	5	75 - 125	20
Total Arsenic	47.9	42.7	mg/Kg	1	50.0	<0.228	96	11	75 - 125	20
Total Barium	131	116	mg/Kg	1	100	15.7	115	12	75 - 125	20
Total Cadmium	26.9	22.2	mg/Kg	1	25.0	0.899	104	19	75 - 125	20
Total Chromium	20.3	20.9	mg/Kg	1	10.0	9.58	107	3	75 - 125	20
Total Lead	59.2	50.5	mg/Kg	1	50.0	6.94	104	16	75 - 125	20
Total Selenium	42.5	46.0	mg/Kg	1	50.0	<0.0767	85	8	75 - 125	20

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

Matrix Spike (MS-1) QC Batch: 9756

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	11.7	11.9	mg/Kg	1	12.5	<0.00444	94	2	75 - 125	20
Total Arsenic	41.4	40.3	mg/Kg	1	50.0	<0.228	83	3	75 - 125	20
Total Barium	155	147	mg/Kg	1	100	51.8	103	5	75 - 125	20
Total Cadmium	22.2	23.0	mg/Kg	1	25.0	0.597	86	4	75 - 125	20
Total Chromium	11.2	11.2	mg/Kg	1	10.0	2.14	91	0	75 - 125	20
Total Lead	51.6	55.9	mg/Kg	1	50.0	2.42	98	8	75 - 125	20
Total Selenium	43.4	41.3	mg/Kg	1	50.0	<0.0767	87	5	75 - 125	20

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

Matrix Spike (MS-1) QC Batch: 9758

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	11.1	12.9	mg/Kg	1	12.5	<0.00444	89	15	75 - 125	20
Total Arsenic	39.0	40.1	mg/Kg	1	50.0	<0.228	78	3	75 - 125	20
Total Barium	155	140	mg/Kg	1	100	53.9	101	10	75 - 125	20
Total Cadmium	23.9	23.7	mg/Kg	1	25.0	0.921	92	1	75 - 125	20
Total Chromium	12.5	12.5	mg/Kg	1	10.0	4.03	85	0	75 - 125	20
Total Lead	57.9	55.3	mg/Kg	1	50.0	5.17	105	4	75 - 125	20
Total Selenium	47.2	46.5	mg/Kg	1	50.0	3.03	88	1	75 - 125	20

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

Matrix Spike (MS-1) QC Batch: 9811

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Lead	43.0	40.6	mg/Kg	1	50.0	<0.650	86	6	75 - 125	20

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

Matrix Spike (MS-1) QC Batch: 9813

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Lead	42.5	43.9	mg/Kg	1	50.0	<0.650	85	3	75 - 125	20

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

Matrix Spike (MS-1) QC Batch: 9813

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	11.3	11.0	mg/Kg	1	12.5	<0.0444	90	3	75 - 125	20
Total Arsenic	38.4	39.4	mg/Kg	1	50.0	<0.228	77	2	75 - 125	20
Total Barium	101	105	mg/Kg	1	100	<0.601	101	4	75 - 125	20
Total Cadmium	19.1	22.3	mg/Kg	1	25.0	<0.0795	76	15	75 - 125	20
Total Chromium	9.82	10.0	mg/Kg	1	10.0	<0.125	98	2	75 - 125	20
Total Lead	42.5	43.9	mg/Kg	1	50.0	<0.650	85	3	75 - 125	20
Total Selenium	38.7	39.0	mg/Kg	1	50.0	<0.767	77	1	75 - 125	20

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

Standard (ICV-1) QC Batch: 9683

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.124	99	90 - 110	2004-05-17
Total Arsenic		mg/Kg	1.00	1.00	100	90 - 110	2004-05-17
Total Barium		mg/Kg	1.00	0.991	99	90 - 110	2004-05-17
Total Cadmium		mg/Kg	1.00	0.997	100	90 - 110	2004-05-17

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standard continued . . .

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Chromium		mg/Kg	1.00	0.992	99	90 - 110	2004-05-17
Total Lead		mg/Kg	1.00	1.00	100	90 - 110	2004-05-17
Total Selenium		mg/Kg	1.00	1.00	100	90 - 110	2004-05-17

Standard (CCV-1) QC Batch: 9683

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.125	100	90 - 110	2004-05-17
Total Arsenic		mg/Kg	1.00	1.01	101	90 - 110	2004-05-17
Total Barium		mg/Kg	1.00	0.996	100	90 - 110	2004-05-17
Total Cadmium		mg/Kg	1.00	0.997	100	90 - 110	2004-05-17
Total Chromium		mg/Kg	1.00	0.996	100	90 - 110	2004-05-17
Total Lead		mg/Kg	1.00	1.00	100	90 - 110	2004-05-17
Total Selenium		mg/Kg	1.00	0.995	100	90 - 110	2004-05-17

Standard (ICV-1) QC Batch: 9684

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.124	99	90 - 110	2004-05-17
Total Arsenic		mg/Kg	1.00	1.00	100	90 - 110	2004-05-17
Total Barium		mg/Kg	1.00	0.991	99	90 - 110	2004-05-17
Total Cadmium		mg/Kg	1.00	0.997	100	90 - 110	2004-05-17
Total Chromium		mg/Kg	1.00	0.992	99	90 - 110	2004-05-17
Total Lead		mg/Kg	1.00	1.00	100	90 - 110	2004-05-17
Total Selenium		mg/Kg	1.00	1.00	100	90 - 110	2004-05-17

Standard (CCV-1) QC Batch: 9684

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.125	100	90 - 110	2004-05-17
Total Arsenic		mg/Kg	1.00	1.00	100	90 - 110	2004-05-17
Total Barium		mg/Kg	1.00	0.995	100	90 - 110	2004-05-17
Total Cadmium		mg/Kg	1.00	0.997	100	90 - 110	2004-05-17
Total Chromium		mg/Kg	1.00	0.995	100	90 - 110	2004-05-17
Total Lead		mg/Kg	1.00	1.00	100	90 - 110	2004-05-17
Total Selenium		mg/Kg	1.00	1.00	100	90 - 110	2004-05-17

Standard (ICV-1) QC Batch: 9698

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.124	99	90 - 110	2004-05-18
Total Arsenic		mg/Kg	1.00	1.00	100	95 - 105	2004-05-18
Total Barium		mg/Kg	1.00	0.994	99	95 - 105	2004-05-18
Total Cadmium		mg/Kg	1.00	1.01	101	95 - 105	2004-05-18
Total Chromium		mg/Kg	1.00	1.03	103	90 - 110	2004-05-18
Total Lead		mg/Kg	1.00	0.990	99	95 - 105	2004-05-18
Total Selenium		mg/Kg	1.00	0.975	98	95 - 105	2004-05-18

Standard (CCV-1) QC Batch: 9698

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.123	98	90 - 110	2004-05-18
Total Arsenic		mg/Kg	1.00	1.01	101	90 - 110	2004-05-18
Total Barium		mg/Kg	1.00	0.982	98	90 - 110	2004-05-18
Total Cadmium		mg/Kg	1.00	0.973	97	90 - 110	2004-05-18
Total Chromium		mg/Kg	1.00	1.00	100	90 - 110	2004-05-18
Total Lead		mg/Kg	1.00	0.946	95	90 - 110	2004-05-18
Total Selenium		mg/Kg	1.00	0.977	98	90 - 110	2004-05-18

Standard (ICV-1) QC Batch: 9699

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.124	99	90 - 110	2004-05-18
Total Arsenic		mg/Kg	1.00	1.00	100	95 - 105	2004-05-18
Total Barium		mg/Kg	1.00	0.994	99	95 - 105	2004-05-18
Total Cadmium		mg/Kg	1.00	1.01	101	95 - 105	2004-05-18
Total Chromium		mg/Kg	1.00	1.03	103	90 - 110	2004-05-18
Total Lead		mg/Kg	1.00	0.990	99	95 - 105	2004-05-18
Total Selenium		mg/Kg	1.00	0.975	98	95 - 105	2004-05-18

Standard (CCV-1) QC Batch: 9699

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.126	101	90 - 110	2004-05-18
Total Arsenic		mg/Kg	1.00	0.961	96	90 - 110	2004-05-18
Total Barium		mg/Kg	1.00	1.00	100	90 - 110	2004-05-18
Total Cadmium		mg/Kg	1.00	1.01	101	90 - 110	2004-05-18
Total Chromium		mg/Kg	1.00	1.03	103	90 - 110	2004-05-18
Total Lead		mg/Kg	1.00	1.01	101	90 - 110	2004-05-18
Total Selenium		mg/Kg	1.00	1.02	102	90 - 110	2004-05-18

Standard (ICV-1) QC Batch: 9702

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.124	99	90 - 110	2004-05-18
Total Arsenic		mg/Kg	1.00	1.00	100	95 - 105	2004-05-18
Total Barium		mg/Kg	1.00	0.994	99	95 - 105	2004-05-18
Total Cadmium		mg/Kg	1.00	1.01	101	95 - 105	2004-05-18
Total Chromium		mg/Kg	1.00	1.03	103	90 - 110	2004-05-18
Total Lead		mg/Kg	1.00	0.990	99	95 - 105	2004-05-18
Total Selenium		mg/Kg	1.00	0.975	98	95 - 105	2004-05-18

Standard (CCV-1) QC Batch: 9702

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.126	101	90 - 110	2004-05-18
Total Arsenic		mg/Kg	1.00	0.961	96	90 - 110	2004-05-18
Total Barium		mg/Kg	1.00	1.00	100	90 - 110	2004-05-18
Total Cadmium		mg/Kg	1.00	1.01	101	90 - 110	2004-05-18
Total Chromium		mg/Kg	1.00	1.03	103	90 - 110	2004-05-18
Total Lead		mg/Kg	1.00	1.01	101	90 - 110	2004-05-18
Total Selenium		mg/Kg	1.00	1.02	102	90 - 110	2004-05-18

Standard (ICV-1) QC Batch: 9703

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.124	99	90 - 110	2004-05-18
Total Arsenic		mg/Kg	1.00	1.00	100	95 - 105	2004-05-18
Total Barium		mg/Kg	1.00	0.994	99	95 - 105	2004-05-18
Total Cadmium		mg/Kg	1.00	1.01	101	95 - 105	2004-05-18
Total Chromium		mg/Kg	1.00	1.03	103	90 - 110	2004-05-18
Total Lead		mg/Kg	1.00	0.990	99	95 - 105	2004-05-18
Total Selenium		mg/Kg	1.00	0.975	98	95 - 105	2004-05-18

Standard (CCV-1) QC Batch: 9703

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.126	101	90 - 110	2004-05-18
Total Arsenic		mg/Kg	1.00	0.961	96	90 - 110	2004-05-18
Total Barium		mg/Kg	1.00	1.00	100	90 - 110	2004-05-18
Total Cadmium		mg/Kg	1.00	1.01	101	90 - 110	2004-05-18
Total Chromium		mg/Kg	1.00	1.03	103	90 - 110	2004-05-18
Total Lead		mg/Kg	1.00	1.01	101	90 - 110	2004-05-18
Total Selenium		mg/Kg	1.00	1.02	102	90 - 110	2004-05-18

Standard (ICV-1) QC Batch: 9723

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.118	94	90 - 110	2004-05-18
Total Arsenic		mg/Kg	1.00	1.01	101	95 - 105	2004-05-18
Total Barium		mg/Kg	1.00	0.990	99	95 - 105	2004-05-18
Total Cadmium		mg/Kg	1.00	0.964	96	95 - 105	2004-05-18
Total Chromium		mg/Kg	1.00	0.977	98	90 - 110	2004-05-18
Total Lead		mg/Kg	1.00	0.958	96	95 - 105	2004-05-18
Total Selenium		mg/Kg	1.00	0.980	98	95 - 105	2004-05-18

Standard (CCV-1) QC Batch: 9723

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.118	94	90 - 110	2004-05-18
Total Arsenic		mg/Kg	1.00	0.993	99	90 - 110	2004-05-18
Total Barium		mg/Kg	1.00	0.954	95	90 - 110	2004-05-18
Total Cadmium		mg/Kg	1.00	0.975	98	90 - 110	2004-05-18
Total Chromium		mg/Kg	1.00	0.997	100	90 - 110	2004-05-18
Total Lead		mg/Kg	1.00	0.996	100	90 - 110	2004-05-18
Total Selenium		mg/Kg	1.00	0.963	96	90 - 110	2004-05-18

Standard (ICV-1) QC Batch: 9756

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.119	95	90 - 110	2004-05-19
Total Arsenic		mg/Kg	1.00	1.00	100	95 - 105	2004-05-19
Total Barium		mg/Kg	1.00	0.995	100	95 - 105	2004-05-19
Total Cadmium		mg/Kg	1.00	0.990	99	95 - 105	2004-05-19
Total Chromium		mg/Kg	1.00	1.02	102	90 - 110	2004-05-19
Total Lead		mg/Kg	1.00	0.966	97	95 - 105	2004-05-19
Total Selenium		mg/Kg	1.00	1.02	102	95 - 105	2004-05-19

Standard (CCV-1) QC Batch: 9756

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.118	94	90 - 110	2004-05-19
Total Arsenic		mg/Kg	1.00	0.993	99	90 - 110	2004-05-19
Total Barium		mg/Kg	1.00	0.964	96	90 - 110	2004-05-19
Total Cadmium		mg/Kg	1.00	0.960	96	90 - 110	2004-05-19
Total Chromium		mg/Kg	1.00	0.982	98	90 - 110	2004-05-19
Total Lead		mg/Kg	1.00	0.930	93	90 - 110	2004-05-19
Total Selenium		mg/Kg	1.00	0.955	96	90 - 110	2004-05-19

Standard (ICV-1) QC Batch: 9758

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.119	95	90 - 110	2004-05-19
Total Arsenic		mg/Kg	1.00	1.00	100	95 - 105	2004-05-19
Total Barium		mg/Kg	1.00	0.995	100	95 - 105	2004-05-19
Total Cadmium		mg/Kg	1.00	0.990	99	95 - 105	2004-05-19
Total Chromium		mg/Kg	1.00	1.02	102	90 - 110	2004-05-19
Total Lead		mg/Kg	1.00	0.966	97	95 - 105	2004-05-19
Total Selenium		mg/Kg	1.00	1.02	102	95 - 105	2004-05-19

Standard (CCV-1) QC Batch: 9758

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.118	94	90 - 110	2004-05-19
Total Arsenic		mg/Kg	1.00	0.957	96	90 - 110	2004-05-19
Total Barium		mg/Kg	1.00	0.943	94	90 - 110	2004-05-19
Total Cadmium		mg/Kg	1.00	0.951	95	90 - 110	2004-05-19
Total Chromium		mg/Kg	1.00	0.977	98	90 - 110	2004-05-19
Total Lead		mg/Kg	1.00	0.959	96	90 - 110	2004-05-19
Total Selenium		mg/Kg	1.00	0.928	93	90 - 110	2004-05-19

Standard (ICV-1) QC Batch: 9811

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Lead		mg/Kg	1.00	1.06	106	90 - 110	2004-05-20

Standard (CCV-1) QC Batch: 9811

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Lead		mg/Kg	1.00	1.08	108	90 - 110	2004-05-20

Standard (ICV-1) QC Batch: 9813

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Lead		mg/Kg	1.00	1.06	106	90 - 110	2004-05-20

Standard (ICV-1) QC Batch: 9813

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.129	103	90 - 110	2004-05-20

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standard continued . . .

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Arsenic		mg/Kg	1.00	1.02	102	90 - 110	2004-05-20
Total Barium		mg/Kg	1.00	0.982	98	90 - 110	2004-05-20
Total Cadmium		mg/Kg	1.00	1.02	102	90 - 110	2004-05-20
Total Chromium		mg/Kg	1.00	1.05	105	90 - 110	2004-05-20
Total Lead		mg/Kg	1.00	1.06	106	90 - 110	2004-05-20
Total Selenium		mg/Kg	1.00	1.05	105	90 - 110	2004-05-20

Standard (CCV-1) QC Batch: 9813

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Lead		mg/Kg	1.00	1.05	105	90 - 110	2004-05-20

Standard (CCV-1) QC Batch: 9813

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.127	102	90 - 110	2004-05-20
Total Arsenic		mg/Kg	1.00	1.01	101	90 - 110	2004-05-20
Total Barium		mg/Kg	1.00	0.982	98	90 - 110	2004-05-20
Total Cadmium		mg/Kg	1.00	1.03	103	90 - 110	2004-05-20
Total Chromium		mg/Kg	1.00	1.06	106	90 - 110	2004-05-20
Total Lead		mg/Kg	1.00	1.05	105	90 - 110	2004-05-20
Total Selenium		mg/Kg	1.00	1.08	108	90 - 110	2004-05-20

Analytical and Quality Control Report

Rene Rodriguez
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: May 28, 2004

Work Order: 4051107

Project Name: HELSTE TSA Fuel Spill Investigation
Project Number: 2080.414

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
33541	HLSF-0154-SB-010-(6.5-7)	soil	2004-05-10	08:30	2004-05-11
33542	HLSF-0154-SB-010-(11.5-12)	soil	2004-05-10	08:45	2004-05-11
33543	HLSF-0154-SB-010-(16.5-17)	soil	2004-05-10	08:55	2004-05-11
33544	HLSF-0154-SB-010-(21.5-22)	soil	2004-05-10	09:00	2004-05-11
33545	HLSF-0154-SB-010-(31.5-32)	soil	2004-05-10	09:32	2004-05-11
33546	HLSF-0154-SB-010-(26.5-27)	soil	2004-05-10	09:15	2004-05-11
33547	HLSF-0154-SB-110-(26.5-27)	soil	2004-05-10	09:15	2004-05-11
33548	HLSF-0154-SB-010-(36.5-37)	soil	2004-05-10	09:40	2004-05-11
33549	HLSF-0154-SB-010-(41.5-42)	soil	2004-05-10	09:50	2004-05-11
33550	HLSF-0154-SB-011-(6.5-7.0)	soil	2004-05-10	10:40	2004-05-11
33551	HLSF-0154-SB-011-(11.5-12.0)	soil	2004-05-10	10:45	2004-05-11
33552	HLSF-0154-SB-011-(16.5-17.0)	soil	2004-05-10	11:00	2004-05-11
33553	HLSF-0154-SB-011-(21.5-22)	soil	2004-05-10	11:10	2004-05-11
33554	HLSF-0154-SB-111-(21.5-22)	soil	2004-05-10	11:10	2004-05-11
33555	HLSF-0154-SB-011-(26.5-27)	soil	2004-05-10	11:20	2004-05-11
33556	HLSF-0154-SB-011-(31.5-32)	soil	2004-05-10	11:35	2004-05-11
33557	HLSF-0154-SB-011-(36.5-37)	soil	2004-05-10	11:45	2004-05-11
33558	HLSF-0154-SB-011-(41.5-42)	soil	2004-05-10	11:56	2004-05-11
33559	HLSF-0154-SB-012-(6.5-7.0)	soil	2004-05-10	13:30	2004-05-11
33560	HLSF-0154-SB-012-(11.5-12.0)	soil	2004-05-10	13:40	2004-05-11
33561	HLSF-0154-SB-012-(16.5-17.0)	soil	2004-05-10	14:00	2004-05-11
33562	HLSF-0154-SB-012-(20.5-21.0)	soil	2004-05-10	14:20	2004-05-11
33563	HLSF-0154-SB-112-(20.5-21.0)	soil	2004-05-10	14:20	2004-05-11
33564	HLSF-0154-SB-012-(26.5-27.0)	soil	2004-05-10	14:30	2004-05-11
33565	HLSF-0154-SB-012-(31.5-32)	soil	2004-05-10	14:45	2004-05-11
33566	HLSF-0154-SB-012-(36.5-37)	soil	2004-05-10	14:55	2004-05-11
33567	HLSF-0154-SB-012-(41.5-42.0)	soil	2004-05-10	15:00	2004-05-11
33624	HLSF-0154-SB-013-(6.5-7.0)	soil	2004-05-11	07:00	2004-05-12
33625	HLSF-0154-SB-013-(11.5-12.0)	soil	2004-05-11	07:10	2004-05-12
33626	HLSF-0154-SB-013-(16.5-17.0)	soil	2004-05-11	07:20	2004-05-12
33627	HLSF-0154-SB-013-(20-20.5)	soil	2004-05-11	07:35	2004-05-12
33628	HLSF-0154-SB-013-(26.5-27.0)	soil	2004-05-11	07:45	2004-05-12
33629	HLSF-0154-SB-013-(30.5-31.0)	soil	2004-05-11	07:55	2004-05-12
33630	HLSF-0154-SB-113-(30.5-31)	soil	2004-05-11	07:55	2004-05-12

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
33631	HLSF-0154-SB-013-(35-35.5)	soil	2004-05-11	08:10	2004-05-12
33632	HLSF-0154-SB-013-(41.5-42.0)	soil	2004-05-11	08:20	2004-05-12
33633	HLSF-0154-SB-014-(6.5-7.0)	soil	2004-05-11	09:15	2004-05-12
33634	HLSF-0154-SB-014-(11.5-12)	soil	2004-05-11	09:30	2004-05-12
33635	HLSF-0154-SB-014-(16.5-17.0)	soil	2004-05-11	09:40	2004-05-12
33636	HLSF-0154-SB-014-(21.5-22.0)	soil	2004-05-11	09:45	2004-05-12
33637	HLSF-0154-SB-014-(30-30.5)	soil	2004-05-11	10:05	2004-05-12
33638	HLSF-0154-SB-114-(30-30.5)	soil	2004-05-11	10:05	2004-05-12
33639	HLSF-0154-SB-014-(36.5-37)	soil	2004-05-11	10:15	2004-05-12
33640	HLSF-0154-SB-014-(41.5-42)	soil	2004-05-11	10:25	2004-05-12
33641	HLSF-0154-SB-015-(6.5-7.0)	soil	2004-05-11	11:25	2004-05-12
33642	HLSF-0154-SB-015-(11.5-12.0)	soil	2004-05-11	11:35	2004-05-12
33643	HLSF-0154-SB-015-(16.5-17.0)	soil	2004-05-11	12:10	2004-05-12
33644	HLSF-0154-SB-015-(21.5-22)	soil	2004-05-11	12:20	2004-05-12
33645	HLSF-0154-SB-115-(21.5-22)	soil	2004-05-11	12:20	2004-05-12
33646	HLSF-0154-SB-015-(26.5-27)	soil	2004-05-11	12:30	2004-05-12
33647	HLSF-0154-SB-015-(31.5-32)	soil	2004-05-11	12:40	2004-05-12
33648	HLSF-0154-SB-015-(36.5-37)	soil	2004-05-11	12:50	2004-05-12
33649	HLSF-0154-SB-015-(41.5-42)	soil	2004-05-11	13:00	2004-05-12
33650	HLSF-0154-SB-016-(6.5-7.0)	soil	2004-05-11	14:05	2004-05-12
33651	HLSF-0154-SB-016-(11.5-12.0)	soil	2004-05-11	14:15	2004-05-12
33652	HLSF-0154-SB-016-(16.5-17.0)	soil	2004-05-11	14:20	2004-05-12
33653	HLSF-0154-SB-016-(20.5-21.0)	soil	2004-05-11	14:40	2004-05-12
33654	HLSF-0154-SB-116-(20.5-21.0)	soil	2004-05-11	14:40	2004-05-12
33655	HLSF-0154-SB-016-(26.5-27)	soil	2004-05-11	14:45	2004-05-12
33656	HLSF-0154-SB-016-(30.5-31.0)	soil	2004-05-11	14:55	2004-05-12
33657	HLSF-0154-SB-016-(35.5-36)	soil	2004-05-11	15:10	2004-05-12
33658	HLSF-0154-SB-016-(41.5-42.0)	soil	2004-05-11	15:20	2004-05-12
33659	HLSF-0154-SB-014-(26.5-27)	soil	2004-05-11	09:58	2004-05-12
33836	HLSF-0154-SB-017-(6.5-7.0)	soil	2004-05-12	07:00	2004-05-13
33837	HLSF-0154-SB-017-(11.5-12.0)	soil	2004-05-12	07:10	2004-05-13
33838	HLSF-0154-SB-017-(16.5-17.0)	soil	2004-05-12	07:20	2004-05-13
33839	HLSF-0154-SB-017-(21.0-21.5)	soil	2004-05-12	07:40	2004-05-13
33840	HLSF-0154-SB-017-(26.5-27)	soil	2004-05-12	07:50	2004-05-13
33841	HLSF-0154-SB-017-(31.5-32)	soil	2004-05-12	08:00	2004-05-13
33842	HLSF-0154-SB-017-(36.5-37)	soil	2004-05-12	08:15	2004-05-13
33843	HLSF-0154-SB-017-(41.5-42)	soil	2004-05-12	08:30	2004-05-13
33844	HLSF-0154-SB-018-(6.5-7.0)	soil	2004-05-12	09:20	2004-05-13
33845	HLSF-0154-SB-018-(11.5-12.0)	soil	2004-05-12	09:45	2004-05-13
33846	HLSF-0154-SB-018-(16.5-17)	soil	2004-05-12	09:50	2004-05-13
33847	HLSF-0154-SB-018-(20.5-21.0)	soil	2004-05-12	10:15	2004-05-13
33848	HLSF-0154-SB-018-(26.5-27)	soil	2004-05-12	10:25	2004-05-13
33849	HLSF-0154-SB-018-(30.5-31)	soil	2004-05-12	10:35	2004-05-13
33850	HLSF-0154-SB-018-(36.5-37)	soil	2004-05-12	10:50	2004-05-13
33851	HLSF-0154-SB-018-(41.5-42)	soil	2004-05-12	11:00	2004-05-13
34378	HLSF-0154-SC-004-0504	soil	2004-05-17	10:00	2004-05-18
34379	HLSF-0154-SC-005-0504	soil	2004-05-17	09:15	2004-05-18

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 25 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 33541 - HLSF-0154-SB-010-(6.5-7)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9945	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8812	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33542 - HLSF-0154-SB-010-(11.5-12)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9945	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8812	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		12.1	mg/Kg	1	0.150

Sample: 33543 - HLSF-0154-SB-010-(16.5-17)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9945	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8812	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33544 - HLSF-0154-SB-010-(21.5-22)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9945	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8812	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33545 - HLSF-0154-SB-010-(31.5-32)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9945	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8812	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33546 - HLSF-0154-SB-010-(26.5-27)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9945	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8812	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33547 - HLSF-0154-SB-110-(26.5-27)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9945	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8812	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33548 - HLSF-0154-SB-010-(36.5-37)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9945	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8812	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33549 - HLSF-0154-SB-010-(41.5-42)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9945	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8812	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33550 - HLSF-0154-SB-011-(6.5-7.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9945	Date Analyzed:	2004-05-24	Analyzed By:	BC

Prep Batch: 8812 Date Prepared: 2004-05-24 Prepared By: BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33551 - HLSF-0154-SB-011-(11.5-12.0)

Analysis: Total 8 Metals Analytical Method: S 7471A Prep Method: N/A
QC Batch: 9945 Date Analyzed: 2004-05-24 Analyzed By: BC
Prep Batch: 8812 Date Prepared: 2004-05-24 Prepared By: BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33552 - HLSF-0154-SB-011-(16.5-17.0)

Analysis: Total 8 Metals Analytical Method: S 7471A Prep Method: N/A
QC Batch: 9945 Date Analyzed: 2004-05-24 Analyzed By: BC
Prep Batch: 8812 Date Prepared: 2004-05-24 Prepared By: BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33553 - HLSF-0154-SB-011-(21.5-22)

Analysis: Total 8 Metals Analytical Method: S 7471A Prep Method: N/A
QC Batch: 9945 Date Analyzed: 2004-05-24 Analyzed By: BC
Prep Batch: 8812 Date Prepared: 2004-05-24 Prepared By: BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33554 - HLSF-0154-SB-111-(21.5-22)

Analysis: Total 8 Metals Analytical Method: S 7471A Prep Method: N/A
QC Batch: 9945 Date Analyzed: 2004-05-24 Analyzed By: BC
Prep Batch: 8812 Date Prepared: 2004-05-24 Prepared By: BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33555 - HLSF-0154-SB-011-(26.5-27)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9945	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8812	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33556 - HLSF-0154-SB-011-(31.5-32)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9945	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8812	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33557 - HLSF-0154-SB-011-(36.5-37)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9945	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8812	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33558 - HLSF-0154-SB-011-(41.5-42)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9945	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8812	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33559 - HLSF-0154-SB-012-(6.5-7.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9945	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8812	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33560 - HLSF-0154-SB-012-(11.5-12.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9945	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8812	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33561 - HLSF-0154-SB-012-(16.5-17.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9946	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8813	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33562 - HLSF-0154-SB-012-(20.5-21.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9946	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8813	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33563 - HLSF-0154-SB-112-(20.5-21.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9946	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8813	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33564 - HLSF-0154-SB-012-(26.5-27.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9946	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8813	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33565 - HLSF-0154-SB-012-(31.5-32)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9946	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8813	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33566 - HLSF-0154-SB-012-(36.5-37)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9946	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8813	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33567 - HLSF-0154-SB-012-(41.5-42.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9946	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8813	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33624 - HLSF-0154-SB-013-(6.5-7.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9946	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8813	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33625 - HLSF-0154-SB-013-(11.5-12.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9946	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8813	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33626 - HLSF-0154-SB-013-(16.5-17.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9946	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8813	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33627 - HLSF-0154-SB-013-(20-20.5)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9946	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8813	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33628 - HLSF-0154-SB-013-(26.5-27.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9948	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8814	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33629 - HLSF-0154-SB-013-(30.5-31.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9948	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8814	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33630 - HLSF-0154-SB-113-(30.5-31)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9948	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8814	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33631 - HLSF-0154-SB-013-(35-35.5)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9948	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8814	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33632 - HLSF-0154-SB-013-(41.5-42.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9948	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8814	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33633 - HLSF-0154-SB-014-(6.5-7.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9948	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8814	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33634 - HLSF-0154-SB-014-(11.5-12)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9948	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8814	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33635 - HLSF-0154-SB-014-(16.5-17.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9948	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8814	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33636 - HLSF-0154-SB-014-(21.5-22.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9948	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8814	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33637 - HLSF-0154-SB-014-(30-30.5)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9948	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8814	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33638 - HLSF-0154-SB-114-(30-30.5)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9948	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8814	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33639 - HLSF-0154-SB-014-(36.5-37)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9948	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8814	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33640 - HLSF-0154-SB-014-(41.5-42)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9948	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8814	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33641 - HLSF-0154-SB-015-(6.5-7.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9948	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8814	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33642 - HLSF-0154-SB-015-(11.5-12.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9948	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8814	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33643 - HLSF-0154-SB-015-(16.5-17.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9948	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8814	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33644 - HLSF-0154-SB-015-(21.5-22)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9948	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8814	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33645 - HLSF-0154-SB-115-(21.5-22)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9948	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8814	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33646 - HLSF-0154-SB-015-(26.5-27)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9948	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8814	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33647 - HLSF-0154-SB-015-(31.5-32)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9950	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8815	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33648 - HLSF-0154-SB-015-(36.5-37)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9950	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8815	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33649 - HLSF-0154-SB-015-(41.5-42)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9950	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8815	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33650 - HLSF-0154-SB-016-(6.5-7.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9950	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8815	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33651 - HLSF-0154-SB-016-(11.5-12.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9950	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8815	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33652 - HLSF-0154-SB-016-(16.5-17.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9950	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8815	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33653 - HLSF-0154-SB-016-(20.5-21.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9950	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8815	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33654 - HLSF-0154-SB-116-(20.5-21.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9950	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8815	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33655 - HLSF-0154-SB-016-(26.5-27)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9950	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8815	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33656 - HLSF-0154-SB-016-(30.5-31.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9950	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8815	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33657 - HLSF-0154-SB-016-(35.5-36)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9950	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8815	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33658 - HLSF-0154-SB-016-(41.5-42.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9950	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8815	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33659 - HLSF-0154-SB-014-(26.5-27)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9950	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8815	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33836 - HLSF-0154-SB-017-(6.5-7.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9950	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8815	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33837 - HLSF-0154-SB-017-(11.5-12.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9950	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8815	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33838 - HLSF-0154-SB-017-(16.5-17.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9950	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8815	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33839 - HLSF-0154-SB-017-(21.0-21.5)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9950	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8815	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33840 - HLSF-0154-SB-017-(26.5-27)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9950	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8815	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33841 - HLSF-0154-SB-017-(31.5-32)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9950	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8815	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33842 - HLSF-0154-SB-017-(36.5-37)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9948	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8814	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33843 - HLSF-0154-SB-017-(41.5-42)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	9950	Date Analyzed:	2004-05-24	Analyzed By:	BC
Prep Batch:	8815	Date Prepared:	2004-05-24	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33844 - HLSF-0154-SB-018-(6.5-7.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	10012	Date Analyzed:	2004-05-26	Analyzed By:	BC
Prep Batch:	8870	Date Prepared:	2004-05-26	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33845 - HLSF-0154-SB-018-(11.5-12.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	10012	Date Analyzed:	2004-05-26	Analyzed By:	BC
Prep Batch:	8870	Date Prepared:	2004-05-26	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33846 - HLSF-0154-SB-018-(16.5-17)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	10012	Date Analyzed:	2004-05-26	Analyzed By:	BC
Prep Batch:	8870	Date Prepared:	2004-05-26	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33847 - HLSF-0154-SB-018-(20.5-21.0)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	10012	Date Analyzed:	2004-05-26	Analyzed By:	BC
Prep Batch:	8870	Date Prepared:	2004-05-26	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33848 - HLSF-0154-SB-018-(26.5-27)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	10012	Date Analyzed:	2004-05-26	Analyzed By:	BC
Prep Batch:	8870	Date Prepared:	2004-05-26	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33849 - HLSF-0154-SB-018-(30.5-31)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	10012	Date Analyzed:	2004-05-26	Analyzed By:	BC
Prep Batch:	8870	Date Prepared:	2004-05-26	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33850 - HLSF-0154-SB-018-(36.5-37)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	10012	Date Analyzed:	2004-05-26	Analyzed By:	BC
Prep Batch:	8870	Date Prepared:	2004-05-26	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 33851 - HLSF-0154-SB-018-(41.5-42)

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	10012	Date Analyzed:	2004-05-26	Analyzed By:	BC
Prep Batch:	8870	Date Prepared:	2004-05-26	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 34378 - HLSF-0154-SC-004-0504

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	10012	Date Analyzed:	2004-05-26	Analyzed By:	BC
Prep Batch:	8870	Date Prepared:	2004-05-26	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Sample: 34379 - HLSF-0154-SC-005-0504

Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	10012	Date Analyzed:	2004-05-26	Analyzed By:	BC
Prep Batch:	8870	Date Prepared:	2004-05-26	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.150	mg/Kg	1	0.150

Method Blank (1) QC Batch: 10012

Parameter	Flag	Result	Units	RL
Total Mercury		<0.150	mg/Kg	0.15

Method Blank (1) QC Batch: 9945

Parameter	Flag	Result	Units	RL
Total Mercury		<0.150	mg/Kg	0.15

Method Blank (1) QC Batch: 9946

Parameter	Flag	Result	Units	RL
Total Mercury		<0.150	mg/Kg	0.15

Method Blank (1) QC Batch: 9948

Parameter	Flag	Result	Units	RL
Total Mercury		<0.150	mg/Kg	0.15

Method Blank (1) QC Batch: 9950

Parameter	Flag	Result	Units	RL
Total Mercury		<0.150	mg/Kg	0.15

Laboratory Control Spike (LCS-1) QC Batch: 10012

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	2.57	2.57	mg/Kg	1	2.50	<0.0870	103	0	80 - 120	20

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

Laboratory Control Spike (LCS-1) QC Batch: 9945

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	2.43	2.44	mg/Kg	1	2.50	<0.0870	97	0	80 - 120	20

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

Laboratory Control Spike (LCS-1) QC Batch: 9946

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	2.44	2.45	mg/Kg	1	2.50	<0.0870	98	0	80 - 120	20

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

Laboratory Control Spike (LCS-1) QC Batch: 9948

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	2.56	2.57	mg/Kg	1	2.50	<0.0870	102	0	80 - 120	20

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

Laboratory Control Spike (LCS-1) QC Batch: 9950

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	2.60	2.60	mg/Kg	1	2.50	<0.0870	104	0	80 - 120	20

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

Matrix Spike (MS-1) QC Batch: 10012

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	2.55	2.55	mg/Kg	1	2.50	<0.0870	102	0	80 - 120	20

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

Matrix Spike (MS-2) QC Batch: 10012

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury [12]	<0.0870	0.00	mg/Kg	1	2.50	<0.0870	0	0	80 - 120	20

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

Matrix Spike (MS-1) QC Batch: 9945

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	2.41	2.43	mg/Kg	1	2.50	<0.0870	96	1	80 - 120	20

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

Matrix Spike (MS-2) QC Batch: 9945

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	2.54	2.54	mg/Kg	1	2.50	<0.0870	102	0	80 - 120	20

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

Matrix Spike (MS-1) QC Batch: 9946

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	2.57	2.55	mg/Kg	1	2.50	<0.0870	103	1	80 - 120	20

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

Matrix Spike (MS-2) QC Batch: 9946

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	2.50	2.52	mg/Kg	1	2.50	<0.0870	100	1	80 - 120	20

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

Matrix Spike (MS-1) QC Batch: 9948

[1] ms recovery invalid due to spiking error, use lcs/lcsd
[2] ms recovery invalid due to spiking error, use lcs/lcsd

Param		MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	[34]	<0.0870	0.00	mg/Kg	1	2.50	<0.0870	0	0	80 - 120	20

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

Matrix Spike (MS-2) QC Batch: 9948

Param		MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	[56]	<0.0870	0.00	mg/Kg	1	2.50	<0.0870	0	0	80 - 120	20

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

Matrix Spike (MS-1) QC Batch: 9950

Param		MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	[78]	<0.0870	0.00	mg/Kg	1	2.50	<0.0870	0	0	80 - 120	20

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

Matrix Spike (MS-2) QC Batch: 9950

Param		MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	[910]	<0.0870	0.00	mg/Kg	1	2.50	<0.0870	0	0	80 - 120	20

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

Standard (ICV-1) QC Batch: 10012

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00500	0.00511	102	90 - 110	2004-05-26

Standard (CCV-1) QC Batch: 10012

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00500	0.00504	101	80 - 120	2004-05-26

Standard (CCV-2) QC Batch: 10012

[3]ms recovery invalid due to spiking error, use lcs/lcsd
[4]ms recovery invalid due to spiking error, use lcs/lcsd
[5]ms recovery invalid due to spiking error, use lcs/lcsd
[6]ms recovery invalid due to spiking error, use lcs/lcsd
[7]ms recovery invalid due to spiking error, use lcs/lcsd
[8]ms recovery invalid due to spiking error, use lcs/lcsd
[9]ms recovery invalid due to spiking error, use lcs/lcsd
[10]ms recovery invalid due to spiking error, use lcs/lcsd

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00500	0.00504	101	80 - 120	2004-05-26

Standard (ICV-1) QC Batch: 9945

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00500	0.00477	95	90 - 110	2004-05-24

Standard (CCV-1) QC Batch: 9945

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00500	0.00511	102	80 - 120	2004-05-24

Standard (CCV-2) QC Batch: 9945

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00500	0.00511	102	80 - 120	2004-05-24

Standard (ICV-1) QC Batch: 9946

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00500	0.00477	95	90 - 110	2004-05-24

Standard (CCV-1) QC Batch: 9946

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00500	0.00511	102	80 - 120	2004-05-24

Standard (CCV-2) QC Batch: 9946

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00500	0.00511	102	80 - 120	2004-05-24

Standard (ICV-1) QC Batch: 9948

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00500	0.00477	95	90 - 110	2004-05-24

Standard (CCV-1) QC Batch: 9948

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00500	0.00505	101	80 - 120	2004-05-24

Standard (CCV-2) QC Batch: 9948

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00500	0.00505	101	80 - 120	2004-05-24

Standard (ICV-1) QC Batch: 9950

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00500	0.00477	95	90 - 110	2004-05-24

Standard (CCV-1) QC Batch: 9950

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00500	0.00541	108	80 - 120	2004-05-24

Standard (CCV-2) QC Batch: 9950

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00500	0.00541	108	80 - 120	2004-05-24

Analytical and Quality Control Report

Len Habel
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: May 28, 2004

Work Order: 4051107

Project Name: HELSTE TSA Fuel Spill Investigation
Project Number: 2080.414

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
33541	HLSF-0154-SB-010-(6.5-7)	soil	2004-05-10	08:30	2004-05-11
33542	HLSF-0154-SB-010-(11.5-12)	soil	2004-05-10	08:45	2004-05-11
33543	HLSF-0154-SB-010-(16.5-17)	soil	2004-05-10	08:55	2004-05-11
33544	HLSF-0154-SB-010-(21.5-22)	soil	2004-05-10	09:00	2004-05-11
33545	HLSF-0154-SB-010-(31.5-32)	soil	2004-05-10	09:32	2004-05-11
33546	HLSF-0154-SB-010-(26.5-27)	soil	2004-05-10	09:15	2004-05-11
33547	HLSF-0154-SB-110-(26.5-27)	soil	2004-05-10	09:15	2004-05-11
33548	HLSF-0154-SB-010-(36.5-37)	soil	2004-05-10	09:40	2004-05-11
33549	HLSF-0154-SB-010-(41.5-42)	soil	2004-05-10	09:50	2004-05-11
33550	HLSF-0154-SB-011-(6.5-7.0)	soil	2004-05-10	10:40	2004-05-11
33551	HLSF-0154-SB-011-(11.5-12.0)	soil	2004-05-10	10:45	2004-05-11
33552	HLSF-0154-SB-011-(16.5-17.0)	soil	2004-05-10	11:00	2004-05-11
33553	HLSF-0154-SB-011-(21.5-22)	soil	2004-05-10	11:10	2004-05-11
33554	HLSF-0154-SB-111-(21.5-22)	soil	2004-05-10	11:10	2004-05-11
33555	HLSF-0154-SB-011-(26.5-27)	soil	2004-05-10	11:20	2004-05-11
33556	HLSF-0154-SB-011-(31.5-32)	soil	2004-05-10	11:35	2004-05-11
33557	HLSF-0154-SB-011-(36.5-37)	soil	2004-05-10	11:45	2004-05-11
33558	HLSF-0154-SB-011-(41.5-42)	soil	2004-05-10	11:56	2004-05-11
33559	HLSF-0154-SB-012-(6.5-7.0)	soil	2004-05-10	13:30	2004-05-11
33560	HLSF-0154-SB-012-(11.5-12.0)	soil	2004-05-10	13:40	2004-05-11
33561	HLSF-0154-SB-012-(16.5-17.0)	soil	2004-05-10	14:00	2004-05-11
33562	HLSF-0154-SB-012-(20.5-21.0)	soil	2004-05-10	14:20	2004-05-11
33563	HLSF-0154-SB-112-(20.5-21.0)	soil	2004-05-10	14:20	2004-05-11
33564	HLSF-0154-SB-012-(26.5-27.0)	soil	2004-05-10	14:30	2004-05-11
33565	HLSF-0154-SB-012-(31.5-32)	soil	2004-05-10	14:45	2004-05-11
33566	HLSF-0154-SB-012-(36.5-37)	soil	2004-05-10	14:55	2004-05-11
33567	HLSF-0154-SB-012-(41.5-42.0)	soil	2004-05-10	15:00	2004-05-11
33624	HLSF-0154-SB-013-(6.5-7.0)	soil	2004-05-11	07:00	2004-05-12
33625	HLSF-0154-SB-013-(11.5-12.0)	soil	2004-05-11	07:10	2004-05-12
33626	HLSF-0154-SB-013-(16.5-17.0)	soil	2004-05-11	07:20	2004-05-12
33627	HLSF-0154-SB-013-(20-20.5)	soil	2004-05-11	07:35	2004-05-12
33628	HLSF-0154-SB-013-(26.5-27.0)	soil	2004-05-11	07:45	2004-05-12
33629	HLSF-0154-SB-013-(30.5-31.0)	soil	2004-05-11	07:55	2004-05-12
33630	HLSF-0154-SB-113-(30.5-31)	soil	2004-05-11	07:55	2004-05-12

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
33631	HLSF-0154-SB-013-(35-35.5)	soil	2004-05-11	08:10	2004-05-12
33632	HLSF-0154-SB-013-(41.5-42.0)	soil	2004-05-11	08:20	2004-05-12
33633	HLSF-0154-SB-014-(6.5-7.0)	soil	2004-05-11	09:15	2004-05-12
33634	HLSF-0154-SB-014-(11.5-12)	soil	2004-05-11	09:30	2004-05-12
33635	HLSF-0154-SB-014-(16.5-17.0)	soil	2004-05-11	09:40	2004-05-12
33636	HLSF-0154-SB-014-(21.5-22.0)	soil	2004-05-11	09:45	2004-05-12
33637	HLSF-0154-SB-014-(30-30.5)	soil	2004-05-11	10:05	2004-05-12
33638	HLSF-0154-SB-114-(30-30.5)	soil	2004-05-11	10:05	2004-05-12
33639	HLSF-0154-SB-014-(36.5-37)	soil	2004-05-11	10:15	2004-05-12
33640	HLSF-0154-SB-014-(41.5-42)	soil	2004-05-11	10:25	2004-05-12
33641	HLSF-0154-SB-015-(6.5-7.0)	soil	2004-05-11	11:25	2004-05-12
33642	HLSF-0154-SB-015-(11.5-12.0)	soil	2004-05-11	11:35	2004-05-12
33643	HLSF-0154-SB-015-(16.5-17.0)	soil	2004-05-11	12:10	2004-05-12
33644	HLSF-0154-SB-015-(21.5-22)	soil	2004-05-11	12:20	2004-05-12
33645	HLSF-0154-SB-115-(21.5-22)	soil	2004-05-11	12:20	2004-05-12
33646	HLSF-0154-SB-015-(26.5-27)	soil	2004-05-11	12:30	2004-05-12
33647	HLSF-0154-SB-015-(31.5-32)	soil	2004-05-11	12:40	2004-05-12
33648	HLSF-0154-SB-015-(36.5-37)	soil	2004-05-11	12:50	2004-05-12
33649	HLSF-0154-SB-015-(41.5-42)	soil	2004-05-11	13:00	2004-05-12
33650	HLSF-0154-SB-016-(6.5-7.0)	soil	2004-05-11	14:05	2004-05-12
33651	HLSF-0154-SB-016-(11.5-12.0)	soil	2004-05-11	14:15	2004-05-12
33652	HLSF-0154-SB-016-(16.5-17.0)	soil	2004-05-11	14:20	2004-05-12
33653	HLSF-0154-SB-016-(20.5-21.0)	soil	2004-05-11	14:40	2004-05-12
33654	HLSF-0154-SB-116-(20.5-21.0)	soil	2004-05-11	14:40	2004-05-12
33655	HLSF-0154-SB-016-(26.5-27)	soil	2004-05-11	14:45	2004-05-12
33656	HLSF-0154-SB-016-(30.5-31.0)	soil	2004-05-11	14:55	2004-05-12
33657	HLSF-0154-SB-016-(35.5-36)	soil	2004-05-11	15:10	2004-05-12
33658	HLSF-0154-SB-016-(41.5-42.0)	soil	2004-05-11	15:20	2004-05-12
33659	HLSF-0154-SB-014-(26.5-27)	soil	2004-05-11	09:58	2004-05-12
33836	HLSF-0154-SB-017-(6.5-7.0)	soil	2004-05-12	07:00	2004-05-13
33837	HLSF-0154-SB-017-(11.5-12.0)	soil	2004-05-12	07:10	2004-05-13
33838	HLSF-0154-SB-017-(16.5-17.0)	soil	2004-05-12	07:20	2004-05-13
33839	HLSF-0154-SB-017-(21.0-21.5)	soil	2004-05-12	07:40	2004-05-13
33840	HLSF-0154-SB-017-(26.5-27)	soil	2004-05-12	07:50	2004-05-13
33841	HLSF-0154-SB-017-(31.5-32)	soil	2004-05-12	08:00	2004-05-13
33842	HLSF-0154-SB-017-(36.5-37)	soil	2004-05-12	08:15	2004-05-13
33843	HLSF-0154-SB-017-(41.5-42)	soil	2004-05-12	08:30	2004-05-13
33844	HLSF-0154-SB-018-(6.5-7.0)	soil	2004-05-12	09:20	2004-05-13
33845	HLSF-0154-SB-018-(11.5-12.0)	soil	2004-05-12	09:45	2004-05-13
33846	HLSF-0154-SB-018-(16.5-17)	soil	2004-05-12	09:50	2004-05-13
33847	HLSF-0154-SB-018-(20.5-21.0)	soil	2004-05-12	10:15	2004-05-13
33848	HLSF-0154-SB-018-(26.5-27)	soil	2004-05-12	10:25	2004-05-13
33849	HLSF-0154-SB-018-(30.5-31)	soil	2004-05-12	10:35	2004-05-13
33850	HLSF-0154-SB-018-(36.5-37)	soil	2004-05-12	10:50	2004-05-13
33851	HLSF-0154-SB-018-(41.5-42)	soil	2004-05-12	11:00	2004-05-13
34378	HLSF-0154-SC-004-0504	soil	2004-05-17	10:00	2004-05-18
34379	HLSF-0154-SC-005-0504	soil	2004-05-17	09:15	2004-05-18

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 Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 33541 - HLSF-0154-SB-010-(6.5-7)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9555	Date Analyzed:	2004-05-11	Analyzed By:	MT
Prep Batch:	8477	Date Prepared:	2004-05-11	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.858	mg/Kg	10	0.100	86	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.945	mg/Kg	10	0.100	94	70 - 130

Sample: 33542 - HLSF-0154-SB-010-(11.5-12)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9555	Date Analyzed:	2004-05-11	Analyzed By:	MT
Prep Batch:	8477	Date Prepared:	2004-05-11	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.782	mg/Kg	10	0.100	78	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.834	mg/Kg	10	0.100	83	70 - 130

Sample: 33543 - HLSF-0154-SB-010-(16.5-17)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9555	Date Analyzed:	2004-05-11	Analyzed By:	MT
Prep Batch:	8477	Date Prepared:	2004-05-11	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.768	mg/Kg	10	0.100	77	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.831	mg/Kg	10	0.100	83	70 - 130

Sample: 33544 - HLSF-0154-SB-010-(21.5-22)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9555	Date Analyzed:	2004-05-11	Analyzed By:	MT

Prep Batch: 8477 Date Prepared: 2004-05-11 Prepared By: MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.765	mg/Kg	10	0.100	76	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.833	mg/Kg	10	0.100	83	70 - 130

Sample: 33545 - HLSF-0154-SB-010-(31.5-32)

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 9555 Date Analyzed: 2004-05-11 Analyzed By: MT
Prep Batch: 8477 Date Prepared: 2004-05-11 Prepared By: MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.790	mg/Kg	10	0.100	79	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.859	mg/Kg	10	0.100	86	70 - 130

Sample: 33546 - HLSF-0154-SB-010-(26.5-27)

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 9555 Date Analyzed: 2004-05-11 Analyzed By: MT
Prep Batch: 8477 Date Prepared: 2004-05-11 Prepared By: MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.780	mg/Kg	10	0.100	78	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.838	mg/Kg	10	0.100	84	70 - 130

Sample: 33547 - HLSF-0154-SB-110-(26.5-27)

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 9555 Date Analyzed: 2004-05-11 Analyzed By: MT
Prep Batch: 8477 Date Prepared: 2004-05-11 Prepared By: MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.794	mg/Kg	10	0.100	79	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.864	mg/Kg	10	0.100	86	70 - 130

Sample: 33548 - HLSF-0154-SB-010-(36.5-37)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9555	Date Analyzed:	2004-05-11	Analyzed By:	MT
Prep Batch:	8477	Date Prepared:	2004-05-11	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.797	mg/Kg	10	0.100	80	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.871	mg/Kg	10	0.100	87	70 - 130

Sample: 33549 - HLSF-0154-SB-010-(41.5-42)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9555	Date Analyzed:	2004-05-11	Analyzed By:	MT
Prep Batch:	8477	Date Prepared:	2004-05-11	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.863	mg/Kg	10	0.100	86	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.913	mg/Kg	10	0.100	91	70 - 130

Sample: 33550 - HLSF-0154-SB-011-(6.5-7.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9555	Date Analyzed:	2004-05-11	Analyzed By:	MT
Prep Batch:	8477	Date Prepared:	2004-05-11	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.782	mg/Kg	10	0.100	78	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.847	mg/Kg	10	0.100	85	70 - 130

Sample: 33551 - HLSF-0154-SB-011-(11.5-12.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9555	Date Analyzed:	2004-05-11	Analyzed By:	MT
Prep Batch:	8477	Date Prepared:	2004-05-11	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.822	mg/Kg	10	0.100	82	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.882	mg/Kg	10	0.100	88	70 - 130

Sample: 33552 - HLSF-0154-SB-011-(16.5-17.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9555	Date Analyzed:	2004-05-11	Analyzed By:	MT
Prep Batch:	8477	Date Prepared:	2004-05-11	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.792	mg/Kg	10	0.100	79	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.840	mg/Kg	10	0.100	84	70 - 130

Sample: 33553 - HLSF-0154-SB-011-(21.5-22)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9555	Date Analyzed:	2004-05-11	Analyzed By:	MT
Prep Batch:	8477	Date Prepared:	2004-05-11	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1.77	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.745	mg/Kg	10	0.100	74	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.830	mg/Kg	10	0.100	83	70 - 130

Sample: 33554 - HLSF-0154-SB-111-(21.5-22)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9555	Date Analyzed:	2004-05-11	Analyzed By:	MT
Prep Batch:	8477	Date Prepared:	2004-05-11	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1.99	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.683	mg/Kg	10	0.100	68	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.764	mg/Kg	10	0.100	76	70 - 130

Sample: 33555 - HLSF-0154-SB-011-(26.5-27)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9555	Date Analyzed:	2004-05-11	Analyzed By:	MT
Prep Batch:	8477	Date Prepared:	2004-05-11	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.800	mg/Kg	10	0.100	80	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.862	mg/Kg	10	0.100	86	70 - 130

Sample: 33556 - HLSF-0154-SB-011-(31.5-32)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9555	Date Analyzed:	2004-05-11	Analyzed By:	MT
Prep Batch:	8477	Date Prepared:	2004-05-11	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.728	mg/Kg	10	0.100	73	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.786	mg/Kg	10	0.100	79	70 - 130

Sample: 33557 - HLSF-0154-SB-011-(36.5-37)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9555	Date Analyzed:	2004-05-11	Analyzed By:	MT
Prep Batch:	8477	Date Prepared:	2004-05-11	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.790	mg/Kg	10	0.100	79	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.864	mg/Kg	10	0.100	86	70 - 130

Sample: 33558 - HLSF-0154-SB-011-(41.5-42)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9555	Date Analyzed:	2004-05-11	Analyzed By:	MT
Prep Batch:	8477	Date Prepared:	2004-05-11	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.862	mg/Kg	10	0.100	86	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.908	mg/Kg	10	0.100	91	70 - 130

Sample: 33559 - HLSF-0154-SB-012-(6.5-7.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9555	Date Analyzed:	2004-05-11	Analyzed By:	MT
Prep Batch:	8477	Date Prepared:	2004-05-11	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.847	mg/Kg	10	0.100	85	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.887	mg/Kg	10	0.100	89	70 - 130

Sample: 33560 - HLSF-0154-SB-012-(11.5-12.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9555	Date Analyzed:	2004-05-11	Analyzed By:	MT
Prep Batch:	8477	Date Prepared:	2004-05-11	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.819	mg/Kg	10	0.100	82	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.869	mg/Kg	10	0.100	87	70 - 130

Sample: 33561 - HLSF-0154-SB-012-(16.5-17.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9586	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8501	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.746	mg/Kg	10	0.100	75	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.832	mg/Kg	10	0.100	83	70 - 130

Sample: 33562 - HLSF-0154-SB-012-(20.5-21.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9586	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8501	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1.15	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.751	mg/Kg	10	0.100	75	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.826	mg/Kg	10	0.100	83	70 - 130

Sample: 33563 - HLSF-0154-SB-112-(20.5-21.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9586	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8501	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1.78	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.726	mg/Kg	10	0.100	73	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.812	mg/Kg	10	0.100	81	70 - 130

Sample: 33564 - HLSF-0154-SB-012-(26.5-27.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9586	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8501	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.814	mg/Kg	10	0.100	81	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.891	mg/Kg	10	0.100	89	70 - 130

Sample: 33565 - HLSF-0154-SB-012-(31.5-32)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9586	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8501	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.756	mg/Kg	10	0.100	76	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.856	mg/Kg	10	0.100	86	70 - 130

Sample: 33566 - HLSF-0154-SB-012-(36.5-37)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9586	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8501	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.792	mg/Kg	10	0.100	79	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.876	mg/Kg	10	0.100	88	70 - 130

Sample: 33567 - HLSF-0154-SB-012-(41.5-42.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9586	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8501	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.796	mg/Kg	10	0.100	80	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.872	mg/Kg	10	0.100	87	70 - 130

Sample: 33624 - HLSF-0154-SB-013-(6.5-7.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9631	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8545	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.826	mg/Kg	10	0.100	83	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.933	mg/Kg	10	0.100	93	70 - 130

Sample: 33625 - HLSF-0154-SB-013-(11.5-12.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9631	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8545	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.800	mg/Kg	10	0.100	80	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.886	mg/Kg	10	0.100	89	70 - 130

Sample: 33626 - HLSF-0154-SB-013-(16.5-17.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9631	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8545	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.764	mg/Kg	10	0.100	76	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.876	mg/Kg	10	0.100	88	70 - 130

Sample: 33627 - HLSF-0154-SB-013-(20-20.5)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9631	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8545	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.731	mg/Kg	10	0.100	73	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.843	mg/Kg	10	0.100	84	70 - 130

Sample: 33628 - HLSF-0154-SB-013-(26.5-27.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9631	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8545	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.816	mg/Kg	10	0.100	82	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.942	mg/Kg	10	0.100	94	70 - 130

Sample: 33629 - HLSF-0154-SB-013-(30.5-31.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9631	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8545	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		633	mg/Kg	100	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)	[1]	0.360	mg/Kg	100	0.100	4	70 - 130
4-Bromo?uorobenzene (4-BFB)		7.03	mg/Kg	100	0.100	70	70 - 130

Sample: 33630 - HLSF-0154-SB-113-(30.5-31)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9631	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8545	Date Prepared:	2004-05-12	Prepared By:	MS

[1]Low TFT surrogate recovery due to matrix interference. BFB surrogate recovery shows the method to be in control.

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1090	mg/Kg	100	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)	[2]	3.86	mg/Kg	100	0.100	39	70 - 130
4-Bromo?uorobenzene (4-BFB)		10.4	mg/Kg	100	0.100	104	70 - 130

Sample: 33631 - HLSF-0154-SB-013-(35-35.5)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9713	Date Analyzed:	2004-05-17	Analyzed By:	MT
Prep Batch:	8616	Date Prepared:	2004-05-17	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO	[3]	<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.717	mg/Kg	10	0.100	72	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.913	mg/Kg	10	0.100	91	70 - 130

Sample: 33632 - HLSF-0154-SB-013-(41.5-42.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9631	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8545	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.814	mg/Kg	10	0.100	81	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.923	mg/Kg	10	0.100	92	70 - 130

Sample: 33633 - HLSF-0154-SB-014-(6.5-7.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9631	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8545	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

[2]Low TFT surrogate recovery due to matrix interference. BFB surrogate recovery shows the method to be in control.
[3]Sample rerun due to surrogate problems.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.765	mg/Kg	10	0.100	76	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.863	mg/Kg	10	0.100	86	70 - 130

Sample: 33634 - HLSF-0154-SB-014-(11.5-12)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9586	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8501	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.782	mg/Kg	10	0.100	78	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.870	mg/Kg	10	0.100	87	70 - 130

Sample: 33635 - HLSF-0154-SB-014-(16.5-17.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9586	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8501	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.765	mg/Kg	10	0.100	76	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.859	mg/Kg	10	0.100	86	70 - 130

Sample: 33636 - HLSF-0154-SB-014-(21.5-22.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9586	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8501	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.888	mg/Kg	10	0.100	89	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.962	mg/Kg	10	0.100	96	70 - 130

Sample: 33637 - HLSF-0154-SB-014-(30-30.5)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9586	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8501	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.806	mg/Kg	10	0.100	81	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.899	mg/Kg	10	0.100	90	70 - 130

Sample: 33638 - HLSF-0154-SB-114-(30-30.5)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9586	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8501	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.777	mg/Kg	10	0.100	78	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.888	mg/Kg	10	0.100	89	70 - 130

Sample: 33639 - HLSF-0154-SB-014-(36.5-37)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9586	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8501	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.803	mg/Kg	10	0.100	80	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.912	mg/Kg	10	0.100	91	70 - 130

Sample: 33640 - HLSF-0154-SB-014-(41.5-42)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9586	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8501	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.914	mg/Kg	10	0.100	91	70 - 130
4-Bromo?uorobenzene (4-BFB)		1.01	mg/Kg	10	0.100	101	70 - 130

Sample: 33641 - HLSF-0154-SB-015-(6.5-7.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9586	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8501	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.829	mg/Kg	10	0.100	83	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.898	mg/Kg	10	0.100	90	70 - 130

Sample: 33642 - HLSF-0154-SB-015-(11.5-12.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9656	Date Analyzed:	2004-05-13	Analyzed By:	MS
Prep Batch:	8570	Date Prepared:	2004-05-13	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		9.55	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.801	mg/Kg	10	0.100	80	70 - 130
4-Bromo?uorobenzene (4-BFB)		1.02	mg/Kg	10	0.100	102	70 - 130

Sample: 33643 - HLSF-0154-SB-015-(16.5-17.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9656	Date Analyzed:	2004-05-13	Analyzed By:	MS
Prep Batch:	8570	Date Prepared:	2004-05-13	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.802	mg/Kg	10	0.100	80	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.890	mg/Kg	10	0.100	89	70 - 130

Sample: 33644 - HLSF-0154-SB-015-(21.5-22)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9629	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8544	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1.83	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.882	mg/Kg	10	0.100	88	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.977	mg/Kg	10	0.100	98	70 - 130

Sample: 33645 - HLSF-0154-SB-115-(21.5-22)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9629	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8544	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		2.19	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.850	mg/Kg	10	0.100	85	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.934	mg/Kg	10	0.100	93	70 - 130

Sample: 33646 - HLSF-0154-SB-015-(26.5-27)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9629	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8544	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		63.6	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.968	mg/Kg	10	0.100	97	70 - 130
4-Bromo?uorobenzene (4-BFB)		1.38	mg/Kg	10	0.100	138	70 - 130

Sample: 33647 - HLSF-0154-SB-015-(31.5-32)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9629	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8544	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1.06	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.789	mg/Kg	10	0.100	79	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.908	mg/Kg	10	0.100	91	70 - 130

Sample: 33648 - HLSF-0154-SB-015-(36.5-37)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9629	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8544	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.838	mg/Kg	10	0.100	84	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.941	mg/Kg	10	0.100	94	70 - 130

Sample: 33649 - HLSF-0154-SB-015-(41.5-42)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9629	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8544	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		29.8	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.957	mg/Kg	10	0.100	96	70 - 130
4-Bromo?uorobenzene (4-BFB)		1.36	mg/Kg	10	0.100	136	70 - 130

Sample: 33650 - HLSF-0154-SB-016-(6.5-7.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9629	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8544	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.797	mg/Kg	10	0.100	80	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.872	mg/Kg	10	0.100	87	70 - 130

Sample: 33651 - HLSF-0154-SB-016-(11.5-12.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9656	Date Analyzed:	2004-05-13	Analyzed By:	MS
Prep Batch:	8570	Date Prepared:	2004-05-13	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.811	mg/Kg	10	0.100	81	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.895	mg/Kg	10	0.100	90	70 - 130

Sample: 33652 - HLSF-0154-SB-016-(16.5-17.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9629	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8544	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.786	mg/Kg	10	0.100	79	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.884	mg/Kg	10	0.100	88	70 - 130

Sample: 33653 - HLSF-0154-SB-016-(20.5-21.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9629	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8544	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		242	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		1.12	mg/Kg	10	0.100	112	70 - 130
4-Bromo?uorobenzene (4-BFB)	[4]	7.50	mg/Kg	10	0.100	750	70 - 130

Sample: 33654 - HLSF-0154-SB-116-(20.5-21.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9656	Date Analyzed:	2004-05-13	Analyzed By:	MS
Prep Batch:	8570	Date Prepared:	2004-05-13	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1470	mg/Kg	50	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)	[5]	1.17	mg/Kg	50	0.100	23	70 - 130
4-Bromo?uorobenzene (4-BFB)	[6]	45.5	mg/Kg	50	0.100	910	70 - 130

Sample: 33655 - HLSF-0154-SB-016-(26.5-27)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9629	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8544	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		24.1	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.685	mg/Kg	10	0.100	68	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.871	mg/Kg	10	0.100	87	70 - 130

Sample: 33656 - HLSF-0154-SB-016-(30.5-31.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9629	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8544	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		13.7	mg/Kg	10	0.100

[4]High surrogate recovery due to peak interference.
[5]Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.
[6]High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.801	mg/Kg	10	0.100	80	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.874	mg/Kg	10	0.100	87	70 - 130

Sample: 33657 - HLSF-0154-SB-016-(35.5-36)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9629	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8544	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		11.9	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.796	mg/Kg	10	0.100	80	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.984	mg/Kg	10	0.100	98	70 - 130

Sample: 33658 - HLSF-0154-SB-016-(41.5-42.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9629	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8544	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		3.79	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.849	mg/Kg	10	0.100	85	70 - 130
4-Bromo?uorobenzene (4-BFB)		1.06	mg/Kg	10	0.100	106	70 - 130

Sample: 33659 - HLSF-0154-SB-014-(26.5-27)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9586	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8501	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.832	mg/Kg	10	0.100	83	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.930	mg/Kg	10	0.100	93	70 - 130

Sample: 33836 - HLSF-0154-SB-017-(6.5-7.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9632	Date Analyzed:	2004-05-13	Analyzed By:	MS
Prep Batch:	8547	Date Prepared:	2004-05-13	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.810	mg/Kg	10	0.100	81	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.899	mg/Kg	10	0.100	90	70 - 130

Sample: 33837 - HLSF-0154-SB-017-(11.5-12.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9713	Date Analyzed:	2004-05-17	Analyzed By:	MT
Prep Batch:	8616	Date Prepared:	2004-05-17	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO	[7]	<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.762	mg/Kg	10	0.100	76	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.895	mg/Kg	10	0.100	90	70 - 130

Sample: 33838 - HLSF-0154-SB-017-(16.5-17.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9631	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8545	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.772	mg/Kg	10	0.100	77	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.853	mg/Kg	10	0.100	85	70 - 130

Sample: 33839 - HLSF-0154-SB-017-(21.0-21.5)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9713	Date Analyzed:	2004-05-17	Analyzed By:	MT
Prep Batch:	8616	Date Prepared:	2004-05-17	Prepared By:	MT

[7]Sample rerun due to surrogate problems.

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		103	mg/Kg	200	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)	[8]	1.88	mg/Kg	200	0.100	9	70 - 130
4-Bromo?uorobenzene (4-BFB)	[9]	2.07	mg/Kg	200	0.100	10	70 - 130

Sample: 33840 - HLSF-0154-SB-017-(26.5-27)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9631	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8545	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		4.09	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.689	mg/Kg	10	0.100	69	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.822	mg/Kg	10	0.100	82	70 - 130

Sample: 33841 - HLSF-0154-SB-017-(31.5-32)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9631	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8545	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1.40	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.786	mg/Kg	10	0.100	79	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.894	mg/Kg	10	0.100	89	70 - 130

Sample: 33842 - HLSF-0154-SB-017-(36.5-37)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9631	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8545	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

[8]Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.
[9]Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.785	mg/Kg	10	0.100	78	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.874	mg/Kg	10	0.100	87	70 - 130

Sample: 33843 - HLSF-0154-SB-017-(41.5-42)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9631	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8545	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.809	mg/Kg	10	0.100	81	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.881	mg/Kg	10	0.100	88	70 - 130

Sample: 33844 - HLSF-0154-SB-018-(6.5-7.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9631	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8545	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.787	mg/Kg	10	0.100	79	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.890	mg/Kg	10	0.100	89	70 - 130

Sample: 33845 - HLSF-0154-SB-018-(11.5-12.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9631	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8545	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.766	mg/Kg	10	0.100	77	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.839	mg/Kg	10	0.100	84	70 - 130

Sample: 33846 - HLSF-0154-SB-018-(16.5-17)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9631	Date Analyzed:	2004-05-12	Analyzed By:	MS
Prep Batch:	8545	Date Prepared:	2004-05-12	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.754	mg/Kg	10	0.100	75	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.806	mg/Kg	10	0.100	81	70 - 130

Sample: 33847 - HLSF-0154-SB-018-(20.5-21.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9632	Date Analyzed:	2004-05-13	Analyzed By:	MS
Prep Batch:	8547	Date Prepared:	2004-05-13	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		3200	mg/Kg	200	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)	[10]	44.1	mg/Kg	200	0.100	220	70 - 130
4-Bromo?uorobenzene (4-BFB)	[11]	40.0	mg/Kg	200	0.100	200	70 - 130

Sample: 33848 - HLSF-0154-SB-018-(26.5-27)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9632	Date Analyzed:	2004-05-13	Analyzed By:	MS
Prep Batch:	8547	Date Prepared:	2004-05-13	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1.54	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.731	mg/Kg	10	0.100	73	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.859	mg/Kg	10	0.100	86	70 - 130

Sample: 33849 - HLSF-0154-SB-018-(30.5-31)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9713	Date Analyzed:	2004-05-17	Analyzed By:	MT
Prep Batch:	8616	Date Prepared:	2004-05-17	Prepared By:	MT

[10]High TFT surrogate recovery due to peak interference.
[11]High BFB surrogate recovery due to peak inteference.

Parameter	Flag	RL Result	Units	Dilution	RL
GRO	[12]	8480	mg/Kg	500	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)	[13]	24.7	mg/Kg	500	0.100	49	70 - 130
4-Bromo?uorobenzene (4-BFB)	[14]	70.9	mg/Kg	500	0.100	142	70 - 130

Sample: 33850 - HLSF-0154-SB-018-(36.5-37)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9632	Date Analyzed:	2004-05-13	Analyzed By:	MS
Prep Batch:	8547	Date Prepared:	2004-05-13	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		2.67	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.713	mg/Kg	10	0.100	71	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.913	mg/Kg	10	0.100	91	70 - 130

Sample: 33851 - HLSF-0154-SB-018-(41.5-42)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9632	Date Analyzed:	2004-05-13	Analyzed By:	MS
Prep Batch:	8547	Date Prepared:	2004-05-13	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.952	mg/Kg	10	0.100	95	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.760	mg/Kg	10	0.100	76	70 - 130

Sample: 34378 - HLSF-0154-SC-004-0504

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9798	Date Analyzed:	2004-05-18	Analyzed By:	MS
Prep Batch:	8693	Date Prepared:	2004-05-18	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

[12]Sample rerun due to surrogate problems.
[13]Low surrogate recovery due to matrix interference. ICV/CCV show the method to be in control.
[14]High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)	[15]	0.673	mg/Kg	10	0.100	67	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.722	mg/Kg	10	0.100	72	70 - 130

Sample: 34379 - HLSF-0154-SC-005-0504

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	9798	Date Analyzed:	2004-05-18	Analyzed By:	MS
Prep Batch:	8693	Date Prepared:	2004-05-18	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		73.0	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		1.16	mg/Kg	10	0.100	116	70 - 130
4-Bromo?uorobenzene (4-BFB)	[16]	1.66	mg/Kg	10	0.100	166	70 - 130

Method Blank (1) QC Batch: 9555

Parameter	Flag	Result	Units	RL
GRO		1.66	mg/Kg	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.930	mg/Kg	10	0.100	93	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.840	mg/Kg	10	0.100	84	70 - 130

Method Blank (1) QC Batch: 9586

Parameter	Flag	Result	Units	RL
GRO		<1.00	mg/Kg	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.957	mg/Kg	10	0.100	96	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.844	mg/Kg	10	0.100	84	70 - 130

Method Blank (1) QC Batch: 9629

[15]Low TFT surrogate recovery due to matrix interference. BFB surrogate recovery shows the method to be in control.
[16]High surrogate recovery due to peak interference.

Parameter	Flag	Result	Units	RL
GRO		1.77	mg/Kg	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.971	mg/Kg	10	0.100	97	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.931	mg/Kg	10	0.100	93	70 - 130

Method Blank (1) QC Batch: 9631

Parameter	Flag	Result	Units	RL
GRO		1.75	mg/Kg	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.956	mg/Kg	10	0.100	96	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.927	mg/Kg	10	0.100	93	70 - 130

Method Blank (1) QC Batch: 9632

Parameter	Flag	Result	Units	RL
GRO		<1.00	mg/Kg	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.934	mg/Kg	10	0.100	93	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.876	mg/Kg	10	0.100	88	70 - 130

Method Blank (1) QC Batch: 9656

Parameter	Flag	Result	Units	RL
GRO		1.76	mg/Kg	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.975	mg/Kg	10	0.100	98	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.905	mg/Kg	10	0.100	90	70 - 130

Method Blank (1) QC Batch: 9713

Parameter	Flag	Result	Units	RL
GRO		1.70	mg/Kg	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.958	mg/Kg	10	0.100	96	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.860	mg/Kg	10	0.100	86	70 - 130

Method Blank (1) QC Batch: 9798

Parameter	Flag	Result	Units	RL
GRO		1.68	mg/Kg	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.955	mg/Kg	10	0.100	96	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.827	mg/Kg	10	0.100	83	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 9555

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	9.12	10.5	mg/Kg	10	1.00	<0.381	91	14	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Tri?uorotoluene (TFT)	0.923	0.951	mg/Kg	10	0.100	92	95	70 - 130
4-Bromo?uorobenzene (4-BFB)	0.967	0.958	mg/Kg	10	0.100	97	96	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 9586

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	10.5	10.7	mg/Kg	10	1.00	<0.381	105	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Tri?uorotoluene (TFT)	1.00	1.00	mg/Kg	10	0.100	100	100	70 - 130
4-Bromo?uorobenzene (4-BFB)	0.993	0.996	mg/Kg	10	0.100	99	100	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 9629

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	9.10	10.3	mg/Kg	10	1.00	<0.381	91	12	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Tri?uorotoluene (TFT)	0.904	0.954	mg/Kg	10	0.100	90	95	70 - 130
4-Bromo?uorobenzene (4-BFB)	0.956	0.975	mg/Kg	10	0.100	96	98	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 9631

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	11.2	9.25	mg/Kg	10	1.00	<0.381	112	19	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Tri?uorotoluene (TFT)	1.01	0.868	mg/Kg	10	0.100	101	87	70 - 130
4-Bromo?uorobenzene (4-BFB)	1.02	1.04	mg/Kg	10	0.100	102	104	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 9632

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	8.84	8.99	mg/Kg	10	1.00	<0.381	88	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Tri?uorotoluene (TFT)	0.900	0.929	mg/Kg	10	0.100	90	93	70 - 130
4-Bromo?uorobenzene (4-BFB)	0.971	1.01	mg/Kg	10	0.100	97	101	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 9656

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	11.0	11.1	mg/Kg	10	1.00	<0.381	110	1	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Tri?uorotoluene (TFT)	0.999	0.974	mg/Kg	10	0.100	100	97	70 - 130
4-Bromo?uorobenzene (4-BFB)	1.01	1.02	mg/Kg	10	0.100	101	102	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 9713

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	11.0	11.5	mg/Kg	10	1.00	<0.381	110	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Tri?uorotoluene (TFT)	0.982	0.998	mg/Kg	10	0.100	98	100	70 - 130
4-Bromo?uorobenzene (4-BFB)	0.993	1.02	mg/Kg	10	0.100	99	102	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 9798

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	10.7	10.6	mg/Kg	10	1.00	<0.381	107	1	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Tri?uorotoluene (TFT)	0.960	0.970	mg/Kg	10	0.100	96	97	70 - 130
4-Bromo?uorobenzene (4-BFB)	1.00	0.996	mg/Kg	10	0.100	100	100	70 - 130

Matrix Spike (MS-1) QC Batch: 9555

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO [17]	10.1	6.01	mg/Kg	10	1.00	<0.381	101	51	70 - 130	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	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Tri?uorotoluene (TFT)	0.952	0.579	mg/Kg	10	0.1	95	58	70 - 130
4-Bromo?uorobenzene (4-BFB)	0.956	0.730	mg/Kg	10	0.1	96	73	70 - 130

Matrix Spike (MS-1) QC Batch: 9586

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	5.57	5.52	mg/Kg	10	1.00	<0.381	56	1	70 - 130	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	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Tri?uorotoluene (TFT)	0.774	0.716	mg/Kg	10	0.1	77	72	70 - 130
4-Bromo?uorobenzene (4-BFB)	0.926	0.918	mg/Kg	10	0.1	93	92	70 - 130

Matrix Spike (MS-1) QC Batch: 9629

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	9.15	8.33	mg/Kg	10	1.00	<0.381	92	9	70 - 130	20

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

[17]RPD outside normal limits in MS/MSD. LCS/LCSD show the method to be in control.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Tri?uorotoluene (TFT)	0.818	0.831	mg/Kg	10	0.1	82	83	70 - 130
4-Bromo?uorobenzene (4-BFB)	1.03	1.03	mg/Kg	10	0.1	103	103	70 - 130

Matrix Spike (MS-1) QC Batch: 9631

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	7.30	7.59	mg/Kg	10	1.00	<0.381	73	4	70 - 130	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	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Tri?uorotoluene (TFT)	0.747	0.735	mg/Kg	10	0.1	75	74	70 - 130
4-Bromo?uorobenzene (4-BFB)	0.918	0.962	mg/Kg	10	0.1	92	96	70 - 130

Matrix Spike (MS-1) QC Batch: 9632

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO [18][19]	<0.381	<0.381	mg/Kg	10	1.00	<0.381	0	0	70 - 130	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	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Tri?uorotoluene (TFT)	0.801	0.770	mg/Kg	10	0.1	80	77	70 - 130
4-Bromo?uorobenzene (4-BFB)	0.892	0.872	mg/Kg	10	0.1	89	87	70 - 130

Matrix Spike (MS-1) QC Batch: 9656

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	8.03	8.12	mg/Kg	10	1.00	<0.381	80	1	70 - 130	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	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Tri?uorotoluene (TFT)	0.791	0.792	mg/Kg	10	0.1	79	79	70 - 130
4-Bromo?uorobenzene (4-BFB)	0.955	0.955	mg/Kg	10	0.1	96	96	70 - 130

Matrix Spike (MS-1) QC Batch: 9713

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	12.6	12.7	mg/Kg	10	1.00	<0.381	126	1	70 - 130	20

[18]Low spike recovery due to prep. LCS/LCSD show the method to be in control.
[19]Low spike recovery due to prep. LCS/LCSD show the method to be in control.

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Tri?uorotoluene (TFT)	1.06	1.07	mg/Kg	10	0.1	106	107	70 - 130
4-Bromo?uorobenzene (4-BFB)	1.06	1.09	mg/Kg	10	0.1	106	109	70 - 130

Matrix Spike (MS-1) QC Batch: 9798

Param		MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	[20]	11.5	<0.381	mg/Kg	10	1.00	<0.381	115	200	70 - 130	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	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Tri?uorotoluene (TFT)	1.05	0.829	mg/Kg	10	0.1	105	83	70 - 130
4-Bromo?uorobenzene (4-BFB)	1.01	0.899	mg/Kg	10	0.1	101	90	70 - 130

Standard (ICV-1) QC Batch: 9555

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.917	92	85 - 115	2004-05-11

Standard (CCV-1) QC Batch: 9555

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.912	91	85 - 115	2004-05-11

Standard (CCV-2) QC Batch: 9555

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.916	92	85 - 115	2004-05-11

Standard (ICV-1) QC Batch: 9586

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.916	92	85 - 115	2004-05-12

Standard (CCV-1) QC Batch: 9586

[20]GRO outside normal limits in MS/MSD. LCS/LCSD show the method to be in control.

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.03	103	85 - 115	2004-05-12

Standard (CCV-2) QC Batch: 9586

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.12	112	85 - 115	2004-05-12

Standard (ICV-1) QC Batch: 9629

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.12	112	85 - 115	2004-05-12

Standard (CCV-1) QC Batch: 9629

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.992	99	85 - 115	2004-05-12

Standard (CCV-2) QC Batch: 9629

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.07	107	85 - 115	2004-05-12

Standard (ICV-1) QC Batch: 9631

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.991	99	85 - 115	2004-05-12

Standard (CCV-1) QC Batch: 9631

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.00	100	85 - 115	2004-05-12

Standard (CCV-2) QC Batch: 9631

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.983	98	85 - 115	2004-05-12

Standard (ICV-1) QC Batch: 9632

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.983	98	85 - 115	2004-05-13

Standard (CCV-1) QC Batch: 9632

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.05	105	85 - 115	2004-05-13

Standard (ICV-1) QC Batch: 9656

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.10	110	85 - 115	2004-05-13

Standard (CCV-1) QC Batch: 9656

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.960	96	85 - 115	2004-05-13

Standard (ICV-1) QC Batch: 9713

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.00	100	85 - 115	2004-05-17

Standard (CCV-1) QC Batch: 9713

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.12	112	85 - 115	2004-05-17

Standard (ICV-1) QC Batch: 9798

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.10	110	85 - 115	2004-05-18

Standard (CCV-1) QC Batch: 9798

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.06	106	85 - 115	2004-05-18

Analytical and Quality Control Report

Rene Rodriguez
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: May 27, 2004

Work Order: 4051811

Project Location:
Project Name: HELSTF TSA Fuel Spill Investigation
Project Number: 2080.424

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
34378	HLSF-0154-SC-004-0504	soil	2004-05-17	10:00	2004-05-18
34379	HLSF-0154-SC-005-0504	soil	2004-05-17	09:15	2004-05-18

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 4 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 34378 - HLSF-0154-SC-004-0504

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	9793	Date Analyzed:	2004-05-18	Analyzed By:	MS
Prep Batch:	8693	Date Prepared:	2004-05-18	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	10	0.00100
Toluene		<0.0100	mg/Kg	10	0.00100
Ethylbenzene		<0.0100	mg/Kg	10	0.00100
Xylene		<0.0100	mg/Kg	10	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		0.867	mg/Kg	10	0.100	87	74.4 - 114
4-Bromo?uorobenzene (4-BFB)		0.818	mg/Kg	10	0.100	82	76.9 - 112

Sample: 34379 - HLSF-0154-SC-005-0504

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	9793	Date Analyzed:	2004-05-18	Analyzed By:	MS
Prep Batch:	8693	Date Prepared:	2004-05-18	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.459	mg/Kg	10	0.00100
Toluene		2.84	mg/Kg	10	0.00100
Ethylbenzene		1.52	mg/Kg	10	0.00100
Xylene	[1]	6.43	mg/Kg	10	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)	[2]	1.38	mg/Kg	10	0.100	138	74.4 - 114
4-Bromo?uorobenzene (4-BFB)	[3]	1.46	mg/Kg	10	0.100	146	76.9 - 112

Method Blank (1) QC Batch: 9793

Parameter	Flag	Result	Units	RL
Benzene		<0.0100	mg/Kg	0.001
Toluene		<0.0100	mg/Kg	0.001
Ethylbenzene		<0.0100	mg/Kg	0.001
Xylene		<0.0100	mg/Kg	0.001

[1] Estimated concentration value is greater than the standard curve.
[2] High surrogate recovery due to peak interference.
[3] High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Tri?uorotoluene (TFT)		1.22	mg/Kg	10	0.100	122	70 - 130
4-Bromo?uorobenzene (4-BFB)		0.943	mg/Kg	10	0.100	94	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 9793

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	1.18	1.17	mg/Kg	10	0.100	<0.0333	118	1	70 - 130	20
Toluene	1.19	1.19	mg/Kg	10	0.100	<0.0353	119	0	70 - 130	20
Ethylbenzene	1.18	1.18	mg/Kg	10	0.100	<0.0339	118	0	70 - 130	20
Xylene	3.54	3.54	mg/Kg	10	0.300	<0.103	118	0	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Tri?uorotoluene (TFT)	1.25	1.28	mg/Kg	10	0.100	125	128	70 - 130
4-Bromo?uorobenzene (4-BFB)	1.13	1.14	mg/Kg	10	0.100	113	114	70 - 130

Matrix Spike (MS-1) QC Batch: 9793

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	1.04	1.02	mg/Kg	10	0.100	<0.0333	104	2	70 - 130	20
Toluene	1.06	1.05	mg/Kg	10	0.100	<0.0353	106	1	70 - 130	20
Ethylbenzene	1.07	1.06	mg/Kg	10	0.100	<0.0339	107	1	70 - 130	20
Xylene	3.23	3.22	mg/Kg	10	0.300	<0.103	108	0	70 - 130	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	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Tri?uorotoluene (TFT)	1.10	1.11	mg/Kg	10	0.1	110	111	70 - 130
4-Bromo?uorobenzene (4-BFB)	1.05	1.06	mg/Kg	10	0.1	105	106	70 - 130

Standard (ICV-1) QC Batch: 9793

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.110	110	85 - 115	2004-05-18
Toluene		mg/Kg	0.100	0.111	111	85 - 115	2004-05-18
Ethylbenzene		mg/Kg	0.100	0.111	111	85 - 115	2004-05-18
Xylene		mg/Kg	0.300	0.331	110	85 - 115	2004-05-18

Standard (CCV-1) QC Batch: 9793

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0997	100	85 - 115	2004-05-18
Toluene		mg/Kg	0.100	0.100	100	85 - 115	2004-05-18
Ethylbenzene		mg/Kg	0.100	0.101	101	85 - 115	2004-05-18
Xylene		mg/Kg	0.300	0.305	102	85 - 115	2004-05-18

Analytical and Quality Control Report

Rene Rodriguez
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: May 27, 2004

Work Order: 4051811

Project Location:
Project Name: HELSTF TSA Fuel Spill Investigation
Project Number: 2080.424

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
34378	HLSF-0154-SC-004-0504	soil	2004-05-17	10:00	2004-05-18
34379	HLSF-0154-SC-005-0504	soil	2004-05-17	09:15	2004-05-18

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 Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 34378 - HLSF-0154-SC-004-0504

Analysis:	Ignitability	Analytical Method:	SW-846 Ch. 7.1	Prep Method:	N/A
QC Batch:	9826	Date Analyzed:	2004-05-19	Analyzed By:	MW
Prep Batch:	8653	Date Prepared:	2004-05-19	Prepared By:	MW

Parameter	Flag	RL Result	Units	Dilution	RL
Ignitability		non-ignitable		1	0.00

Sample: 34379 - HLSF-0154-SC-005-0504

Analysis:	Ignitability	Analytical Method:	SW-846 Ch. 7.1	Prep Method:	N/A
QC Batch:	9826	Date Analyzed:	2004-05-19	Analyzed By:	MW
Prep Batch:	8653	Date Prepared:	2004-05-19	Prepared By:	MW

Parameter	Flag	RL Result	Units	Dilution	RL
Ignitability		non-ignitable		1	0.00

Duplicate (1) QC Batch: 9826

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Ignitability	non-ignitable	non-ignitable		1	0	20

Analytical and Quality Control Report

Rene Rodriguez
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: June 14, 2004

Work Order: 4060406

Project Name: Ground water Sampling at HELSTF TSA
Project Number: 20-A11

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
35761	HLSF-TSA-HMW-048-0604	water	2004-06-03	09:40	2004-06-04
35762	HLSF-TSA-HMW-048-0604TB	water	2004-06-03	09:40	2004-06-04
35763	HLSF-TSA-HMW-052-0604	water	2004-06-03	10:21	2004-06-04
35764	HLSF-TSA-HMW-052-0604-TB	water	2004-06-03	10:21	2004-06-04
35765	HLSF-TSA-HMW-044-0604	water	2004-06-02	14:32	2004-06-04
35766	HLSF-TSA-HMW-044-0604-TB	water	2004-06-02	14:32	2004-06-04
35767	HLSF-TSA-HMW-050-0604	water	2004-06-02	10:41	2004-06-04
35768	HLSF-TSA-HMW-050-0604-TB	water	2004-06-02	10:41	2004-06-04
35769	HLSF-TSA-HMW-150-0604	water	2004-06-02	10:41	2004-06-04
35770	HLSF-TSA-HMW-150-0604-TB	water	2004-06-02	10:41	2004-06-04

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Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 35761 - HLSF-TSA-HMW-048-0604

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	10288	Date Analyzed:	2004-06-07	Analyzed By:	JG
Prep Batch:	9103	Date Prepared:	2004-06-07	Prepared By:	JG

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

continued . . .

sample 35761 continued . . .

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		50.9	µg/L	1	50.0	102	70 - 130
Toluene-d8		48.4	µg/L	1	50.0	97	70 - 130
4-Bromofluorobenzene (4-BFB)		48.4	µg/L	1	50.0	97	70 - 130

Sample: 35762 - HLSF-TSA-HMW-048-0604TB

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	10288	Date Analyzed:	2004-06-07	Analyzed By:	JG
Prep Batch:	9103	Date Prepared:	2004-06-07	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	1	5.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		28.8	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		<1.00	µg/L	1	1.00

continued . . .

sample 35762 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Acrylonitrile		<1.00	µg/L	1	1.00
2-Butanone (MEK)		<5.00	µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5.00
2-Hexanone		<5.00	µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10.0
1,1-Dichloroethene		1.50	µg/L	1	1.00
Methylene chloride		<5.00	µg/L	1	5.00
MTBE		<1.00	µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1	1.00
1,1-Dichloroethane		<1.00	µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1	1.00
2,2-Dichloropropane		<1.00	µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1.00
Chloroform		<1.00	µg/L	1	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1	1.00
1,1-Dichloropropene		<1.00	µg/L	1	1.00
Benzene		<1.00	µg/L	1	1.00
Carbon Tetrachloride		<1.00	µg/L	1	1.00
1,2-Dichloropropane		<1.00	µg/L	1	1.00
Trichloroethene (TCE)		<1.00	µg/L	1	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1.00
Bromodichloromethane		<1.00	µg/L	1	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	1	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1	1.00
1,3-Dichloropropane		<1.00	µg/L	1	1.00
Dibromochloromethane		<1.00	µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1	1.00
Chlorobenzene		<1.00	µg/L	1	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
Bromoform		<1.00	µg/L	1	1.00
Styrene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1	1.00
2-Chlorotoluene		<1.00	µg/L	1	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1	1.00
Isopropylbenzene		<1.00	µg/L	1	1.00
Bromobenzene		<1.00	µg/L	1	1.00
n-Propylbenzene		<1.00	µg/L	1	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1	1.00
tert-Butylbenzene		<1.00	µg/L	1	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1	1.00
sec-Butylbenzene		<1.00	µg/L	1	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1	1.00
p-Isopropyltoluene		<1.00	µg/L	1	1.00

continued . . .

sample 35762 continued . . .

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		50.6	µg/L	1	50.0	101	70 - 130
Toluene-d8		49.4	µg/L	1	50.0	99	70 - 130
4-Bromofluorobenzene (4-BFB)		49.1	µg/L	1	50.0	98	70 - 130

Sample: 35763 - HLSF-TSA-HMW-052-0604

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	10288	Date Analyzed:	2004-06-07	Analyzed By:	JG
Prep Batch:	9103	Date Prepared:	2004-06-07	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	1	5.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		<10.0	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		<1.00	µg/L	1	1.00
Acrylonitrile		<1.00	µg/L	1	1.00
2-Butanone (MEK)		<5.00	µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5.00
2-Hexanone		<5.00	µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10.0
1,1-Dichloroethene		<1.00	µg/L	1	1.00
Methylene chloride		<5.00	µg/L	1	5.00
MTBE		<1.00	µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1	1.00
1,1-Dichloroethane		<1.00	µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1	1.00
2,2-Dichloropropane		<1.00	µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1.00
Chloroform		<1.00	µg/L	1	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1	1.00
1,1-Dichloropropene		<1.00	µg/L	1	1.00

continued . . .

sample 35763 continued . . .

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		51.7	µg/L	1	50.0	103	70 - 130
Toluene-d8		48.8	µg/L	1	50.0	98	70 - 130
4-Bromofluorobenzene (4-BFB)		47.8	µg/L	1	50.0	96	70 - 130

Sample: 35764 - HLSF-TSA-HMW-052-0604-TB

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	10288	Date Analyzed:	2004-06-07	Analyzed By:	JG
Prep Batch:	9103	Date Prepared:	2004-06-07	Prepared By:	JG

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

continued . . .

sample 35764 continued . . .

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		51.4	µg/L	1	50.0	103	70 - 130
Toluene-d8		49.1	µg/L	1	50.0	98	70 - 130
4-Bromofluorobenzene (4-BFB)		48.2	µg/L	1	50.0	96	70 - 130

Sample: 35765 - HLSF-TSA-HMW-044-0604

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	10288	Date Analyzed:	2004-06-07	Analyzed By:	JG
Prep Batch:	9103	Date Prepared:	2004-06-07	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	1	5.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		<10.0	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		<1.00	µg/L	1	1.00
Acrylonitrile		<1.00	µg/L	1	1.00
2-Butanone (MEK)		<5.00	µg/L	1	5.00

continued . . .

sample 35765 continued . . .

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

continued . . .

sample 35765 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
n-Butylbenzene		<1.00	µg/L	1	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5.00
Naphthalene		<5.00	µg/L	1	5.00
Hexachlorobutadiene		<5.00	µg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		52.1	µg/L	1	50.0	104	70 - 130
Toluene-d8		49.8	µg/L	1	50.0	100	70 - 130
4-Bromofluorobenzene (4-BFB)		47.6	µg/L	1	50.0	95	70 - 130

Sample: 35766 - HLSF-TSA-HMW-044-0604-TB

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	10288	Date Analyzed:	2004-06-07	Analyzed By:	JG
Prep Batch:	9103	Date Prepared:	2004-06-07	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	1	5.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		23.0	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		<1.00	µg/L	1	1.00
Acrylonitrile		<1.00	µg/L	1	1.00
2-Butanone (MEK)		<5.00	µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5.00
2-Hexanone		<5.00	µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10.0
1,1-Dichloroethene		1.18	µg/L	1	1.00
Methylene chloride		<5.00	µg/L	1	5.00
MTBE		<1.00	µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1	1.00
1,1-Dichloroethane		<1.00	µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1	1.00
2,2-Dichloropropane		<1.00	µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1.00
Chloroform		<1.00	µg/L	1	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1	1.00
1,1-Dichloropropene		<1.00	µg/L	1	1.00
Benzene		<1.00	µg/L	1	1.00
Carbon Tetrachloride		<1.00	µg/L	1	1.00

continued . . .

sample 35766 continued . . .

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		51.6	µg/L	1	50.0	103	70 - 130
Toluene-d8		49.1	µg/L	1	50.0	98	70 - 130
4-Bromofluorobenzene (4-BFB)		48.3	µg/L	1	50.0	97	70 - 130

Sample: 35767 - HLSF-TSA-HMW-050-0604

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	10288	Date Analyzed:	2004-06-07	Analyzed By:	JG
Prep Batch:	9103	Date Prepared:	2004-06-07	Prepared By:	JG

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

continued . . .

sample 35767 continued . . .

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		52.5	µg/L	1	50.0	105	70 - 130
Toluene-d8		49.2	µg/L	1	50.0	98	70 - 130
4-Bromofluorobenzene (4-BFB)		47.5	µg/L	1	50.0	95	70 - 130

Sample: 35768 - HLSF-TSA-HMW-050-0604-TB

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	10288	Date Analyzed:	2004-06-07	Analyzed By:	JG
Prep Batch:	9103	Date Prepared:	2004-06-07	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	1	5.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		18.3	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		<1.00	µg/L	1	1.00
Acrylonitrile		<1.00	µg/L	1	1.00
2-Butanone (MEK)		<5.00	µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5.00
2-Hexanone		<5.00	µg/L	1	5.00

continued . . .

sample 35768 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10.0
1,1-Dichloroethene		1.12	µg/L	1	1.00
Methylene chloride		<5.00	µg/L	1	5.00
MTBE		<1.00	µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1	1.00
1,1-Dichloroethane		<1.00	µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1	1.00
2,2-Dichloropropane		<1.00	µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1.00
Chloroform		<1.00	µg/L	1	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1	1.00
1,1-Dichloropropene		<1.00	µg/L	1	1.00
Benzene		<1.00	µg/L	1	1.00
Carbon Tetrachloride		<1.00	µg/L	1	1.00
1,2-Dichloropropane		<1.00	µg/L	1	1.00
Trichloroethene (TCE)		<1.00	µg/L	1	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1.00
Bromodichloromethane		<1.00	µg/L	1	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	1	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1	1.00
1,3-Dichloropropane		<1.00	µg/L	1	1.00
Dibromochloromethane		<1.00	µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1	1.00
Chlorobenzene		<1.00	µg/L	1	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
Bromoform		<1.00	µg/L	1	1.00
Styrene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1	1.00
2-Chlorotoluene		<1.00	µg/L	1	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1	1.00
Isopropylbenzene		<1.00	µg/L	1	1.00
Bromobenzene		<1.00	µg/L	1	1.00
n-Propylbenzene		<1.00	µg/L	1	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1	1.00
tert-Butylbenzene		<1.00	µg/L	1	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1	1.00
sec-Butylbenzene		<1.00	µg/L	1	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1	1.00
p-Isopropyltoluene		<1.00	µg/L	1	1.00
4-Chlorotoluene		<1.00	µg/L	1	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1	1.00
n-Butylbenzene		<1.00	µg/L	1	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5.00

continued . . .

sample 35768 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5.00
Naphthalene		<5.00	µg/L	1	5.00
Hexachlorobutadiene		<5.00	µg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		51.9	µg/L	1	50.0	104	70 - 130
Toluene-d8		49.7	µg/L	1	50.0	99	70 - 130
4-Bromofluorobenzene (4-BFB)		47.7	µg/L	1	50.0	95	70 - 130

Sample: 35769 - HLSF-TSA-HMW-150-0604

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	10288	Date Analyzed:	2004-06-07	Analyzed By:	JG
Prep Batch:	9103	Date Prepared:	2004-06-07	Prepared By:	JG

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

continued . . .

sample 35769 continued . . .

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		52.0	µg/L	1	50.0	104	70 - 130
Toluene-d8		48.9	µg/L	1	50.0	98	70 - 130
4-Bromofluorobenzene (4-BFB)		47.7	µg/L	1	50.0	95	70 - 130

Sample: 35770 - HLSF-TSA-HMW-150-0604-TB

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	10288	Date Analyzed:	2004-06-07	Analyzed By:	JG

Prep Batch: 9103 Date Prepared: 2004-06-07 Prepared By: JG

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

continued . . .

sample 35770 continued . . .

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		52.3	µg/L	1	50.0	105	70 - 130
Toluene-d8		48.9	µg/L	1	50.0	98	70 - 130
4-Bromofluorobenzene (4-BFB)		47.4	µg/L	1	50.0	95	70 - 130

Method Blank (1) QC Batch: 10288

Parameter	Flag	Result	Units	RL
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

continued . . .

method blank continued . . .

Parameter	Flag	Result	Units	RL
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 (meta)		<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		49.2	µg/L	1	50.0	98	70 - 130
Toluene-d8		48.6	µg/L	1	50.0	97	70 - 130
4-Bromofluorobenzene (4-BFB)		49.5	µg/L	1	50.0	99	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 10288

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	91.0	92.2	µg/L	1	100	<0.136	91	1	78 - 120	20
Benzene	96.5	97.6	µg/L	1	100	<0.146	96	1	84.2 - 108	20
Trichloroethene (TCE)	98.5	99.4	µg/L	1	100	0.2	98	1	85.8 - 106	20
Toluene	95.2	96.0	µg/L	1	100	0.2	95	1	77.2 - 104	20
Chlorobenzene	96.5	96.7	µg/L	1	100	<0.0540	96	0	82.1 - 113	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromofluoromethane	47.9	48.1	µg/L	1	50.0	96	96	70 - 130
Toluene-d8	49.0	49.2	µg/L	1	50.0	98	98	70 - 130
4-Bromofluorobenzene (4-BFB)	50.3	50.2	µg/L	1	50.0	101	100	70 - 130

Matrix Spike (MS-1) QC Batch: 10288

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	102	102	µg/L	1	100	<0.136	102	0	74.6 - 124	20
Benzene	103	103	µg/L	1	100	<0.146	103	0	88.1 - 114	20
Trichloroethene (TCE)	100	99.8	µg/L	1	100	<0.117	100	0	86.7 - 104	20
Toluene	99.1	99.8	µg/L	1	100	<0.0600	99	1	84 - 114	20
Chlorobenzene	98.4	97.8	µg/L	1	100	<0.0540	98	1	92.3 - 109	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	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Dibromofluoromethane	52.5	51.9	µg/L	1	50	105	104	70 - 130
Toluene-d8	50.0	48.7	µg/L	1	50	100	97	70 - 130
4-Bromofluorobenzene (4-BFB)	47.9	47.7	µg/L	1	50	96	95	70 - 130

Standard (CCV-1) QC Batch: 10288

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	50.0	46.8	94	80 - 120	2004-06-07
1,1-Dichloroethene		µg/L	50.0	51.2	102	80 - 120	2004-06-07
Chloroform		µg/L	50.0	51.1	102	80 - 120	2004-06-07
1,2-Dichloropropane		µg/L	50.0	51.9	104	80 - 120	2004-06-07
Toluene		µg/L	50.0	52.8	106	80 - 120	2004-06-07

continued ...

standard continued . . .

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chlorobenzene		µg/L	50.0	52.6	105	80 - 120	2004-06-07
Ethylbenzene		µg/L	50.0	54.8	110	80 - 120	2004-06-07

Analytical and Quality Control Report

Rene Rodriguez
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: May 28, 2004

Work Order: 4051107

Project Name: HELSTE TSA Fuel Spill Investigation
Project Number: 2080.414

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
33540	HLSF-0154-TB-04-001	water	2004-05-10	08:00	2004-05-11
33568	HLSF-0154-RB-001-0504	water	2004-05-10	16:00	2004-05-11
33623	HLSF-0154-TB-04-002	water	2004-05-11	08:00	2004-05-12
33660	HLSF-0154-RB-002-0504	water	2004-05-11	16:00	2004-05-12
33852	HLSF-0154-TB-104-003	water	2004-05-12	05:30	2004-05-13
33853	HLSF-0154-RB-003-0504	water	2004-05-12	13:00	2004-05-13
34367	HLSF-0154-TB-04-005	water	2004-05-17	08:00	2004-05-18

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 22 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 33540 - HLSF-0154-TB-04-001

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9591	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8505	Date Prepared:	2004-05-11	Prepared By:	JG

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

continued . . .

sample 33540 continued . . .

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		47.1	µg/L	1	50.0	94	70 - 130
Toluene-d8		44.8	µg/L	1	50.0	90	70 - 130
4-Bromofluorobenzene (4-BFB)		50.7	µg/L	1	50.0	101	70 - 130

Sample: 33568 - HLSF-0154-RB-001-0504

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9591	Date Analyzed:	2004-05-11	Analyzed By:	JG
Prep Batch:	8505	Date Prepared:	2004-05-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	1	5.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		<10.0	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		<1.00	µg/L	1	1.00

continued . . .

sample 33568 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Acrylonitrile		<1.00	µg/L	1	1.00
2-Butanone (MEK)		<5.00	µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5.00
2-Hexanone		<5.00	µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10.0
1,1-Dichloroethene		<1.00	µg/L	1	1.00
Methylene chloride		<5.00	µg/L	1	5.00
MTBE		<1.00	µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1	1.00
1,1-Dichloroethane		<1.00	µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1	1.00
2,2-Dichloropropane		<1.00	µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1.00
Chloroform		2.38	µg/L	1	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1	1.00
1,1-Dichloropropene		<1.00	µg/L	1	1.00
Benzene		<1.00	µg/L	1	1.00
Carbon Tetrachloride		<1.00	µg/L	1	1.00
1,2-Dichloropropane		<1.00	µg/L	1	1.00
Trichloroethene (TCE)		<1.00	µg/L	1	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1.00
Bromodichloromethane		<1.00	µg/L	1	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	1	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1	1.00
1,3-Dichloropropane		<1.00	µg/L	1	1.00
Dibromochloromethane		<1.00	µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1	1.00
Chlorobenzene		<1.00	µg/L	1	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
Bromoform		<1.00	µg/L	1	1.00
Styrene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1	1.00
2-Chlorotoluene		<1.00	µg/L	1	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1	1.00
Isopropylbenzene		<1.00	µg/L	1	1.00
Bromobenzene		<1.00	µg/L	1	1.00
n-Propylbenzene		<1.00	µg/L	1	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1	1.00
tert-Butylbenzene		<1.00	µg/L	1	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1	1.00
sec-Butylbenzene		<1.00	µg/L	1	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1	1.00
p-Isopropyltoluene		<1.00	µg/L	1	1.00

continued . . .

sample 33568 continued . . .

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		48.0	µg/L	1	50.0	96	70 - 130
Toluene-d8		45.7	µg/L	1	50.0	91	70 - 130
4-Bromofluorobenzene (4-BFB)		50.5	µg/L	1	50.0	101	70 - 130

Sample: 33623 - HLSF-0154-TB-04-002

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9941	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8810	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	1	5.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		<10.0	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		<1.00	µg/L	1	1.00
Acrylonitrile		<1.00	µg/L	1	1.00
2-Butanone (MEK)		<5.00	µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5.00
2-Hexanone		<5.00	µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10.0
1,1-Dichloroethene		<1.00	µg/L	1	1.00
Methylene chloride		<5.00	µg/L	1	5.00
MTBE		<1.00	µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1	1.00
1,1-Dichloroethane		<1.00	µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1	1.00
2,2-Dichloropropane		<1.00	µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1.00
Chloroform		<1.00	µg/L	1	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1	1.00
1,1-Dichloropropene		<1.00	µg/L	1	1.00

continued . . .

sample 33623 continued . . .

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		54.8	µg/L	1	50.0	110	70 - 130
Toluene-d8		44.2	µg/L	1	50.0	88	70 - 130
4-Bromofluorobenzene (4-BFB)		49.1	µg/L	1	50.0	98	70 - 130

Sample: 33660 - HLSF-0154-RB-002-0504

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9941	Date Analyzed:	2004-05-12	Analyzed By:	JG
Prep Batch:	8810	Date Prepared:	2004-05-12	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	1	5.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		<10.0	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		<1.00	µg/L	1	1.00
Acrylonitrile		<1.00	µg/L	1	1.00
2-Butanone (MEK)		<5.00	µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5.00
2-Hexanone		<5.00	µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10.0
1,1-Dichloroethene		<1.00	µg/L	1	1.00
Methylene chloride		<5.00	µg/L	1	5.00
MTBE		<1.00	µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1	1.00
1,1-Dichloroethane		<1.00	µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1	1.00
2,2-Dichloropropane		<1.00	µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1.00
Chloroform		2.58	µg/L	1	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1	1.00
1,1-Dichloropropene		<1.00	µg/L	1	1.00
Benzene		<1.00	µg/L	1	1.00
Carbon Tetrachloride		<1.00	µg/L	1	1.00
1,2-Dichloropropane		<1.00	µg/L	1	1.00
Trichloroethene (TCE)		<1.00	µg/L	1	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1.00
Bromodichloromethane		1.09	µg/L	1	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	1	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1	1.00
1,3-Dichloropropane		<1.00	µg/L	1	1.00
Dibromochloromethane		<1.00	µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1	1.00
Chlorobenzene		<1.00	µg/L	1	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
Bromoform		<1.00	µg/L	1	1.00
Styrene		<1.00	µg/L	1	1.00

continued . . .

sample 33660 continued . . .

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		55.5	µg/L	1	50.0	111	70 - 130
Toluene-d8		44.6	µg/L	1	50.0	89	70 - 130
4-Bromofluorobenzene (4-BFB)		48.9	µg/L	1	50.0	98	70 - 130

Sample: 33852 - HLSF-0154-TB-104-003

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9985	Date Analyzed:	2004-05-13	Analyzed By:	JG
Prep Batch:	8847	Date Prepared:	2004-05-13	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	1	5.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		<10.0	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		<1.00	µg/L	1	1.00
Acrylonitrile		<1.00	µg/L	1	1.00
2-Butanone (MEK)		<5.00	µg/L	1	5.00

continued . . .

sample 33852 continued . . .

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

continued . . .

sample 33852 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
n-Butylbenzene		<1.00	µg/L	1	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5.00
Naphthalene		<5.00	µg/L	1	5.00
Hexachlorobutadiene		<5.00	µg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		54.1	µg/L	1	50.0	108	70 - 130
Toluene-d8		44.7	µg/L	1	50.0	89	70 - 130
4-Bromofluorobenzene (4-BFB)		48.2	µg/L	1	50.0	96	70 - 130

Sample: 33853 - HLSF-0154-RB-003-0504

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9985	Date Analyzed:	2004-05-13	Analyzed By:	JG
Prep Batch:	8847	Date Prepared:	2004-05-13	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	1	5.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		<10.0	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		<1.00	µg/L	1	1.00
Acrylonitrile		<1.00	µg/L	1	1.00
2-Butanone (MEK)		<5.00	µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5.00
2-Hexanone		<5.00	µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10.0
1,1-Dichloroethene		<1.00	µg/L	1	1.00
Methylene chloride		<5.00	µg/L	1	5.00
MTBE		<1.00	µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1	1.00
1,1-Dichloroethane		<1.00	µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1	1.00
2,2-Dichloropropane		<1.00	µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1.00
Chloroform		1.92	µg/L	1	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1	1.00
1,1-Dichloropropene		<1.00	µg/L	1	1.00
Benzene		<1.00	µg/L	1	1.00
Carbon Tetrachloride		<1.00	µg/L	1	1.00

continued . . .

sample 33853 continued . . .

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		54.1	µg/L	1	50.0	108	70 - 130
Toluene-d8		43.6	µg/L	1	50.0	87	70 - 130
4-Bromofluorobenzene (4-BFB)		47.2	µg/L	1	50.0	94	70 - 130

Sample: 34367 - HLSF-0154-TB-04-005

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	9998	Date Analyzed:	2004-05-18	Analyzed By:	JG
Prep Batch:	8861	Date Prepared:	2004-05-18	Prepared By:	JG

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

continued . . .

sample 34367 continued . . .

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		54.1	µg/L	1	50.0	108	70 - 130
Toluene-d8		43.0	µg/L	1	50.0	86	70 - 130
4-Bromofluorobenzene (4-BFB)		48.4	µg/L	1	50.0	97	70 - 130

Method Blank (1) QC Batch: 9591

Parameter	Flag	Result	Units	RL
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

continued . . .

method blank continued . . .

Parameter	Flag	Result	Units	RL
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 (meta)		<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		47.3	µg/L	1	50.0	95	70 - 130
Toluene-d8		45.8	µg/L	1	50.0	92	70 - 130
4-Bromofluorobenzene (4-BFB)		50.6	µg/L	1	50.0	101	70 - 130

Method Blank (1) QC Batch: 9941

Parameter	Flag	Result	Units	RL
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

continued...

method blank continued . . .

Parameter	Flag	Result	Units	RL
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 (meta)		<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		55.4	µg/L	1	50.0	111	70 - 130
Toluene-d8		45.0	µg/L	1	50.0	90	70 - 130
4-Bromofluorobenzene (4-BFB)		49.5	µg/L	1	50.0	99	70 - 130

Method Blank (1) QC Batch: 9985

Parameter	Flag	Result	Units	RL
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

continued . . .

method blank continued . . .

Parameter	Flag	Result	Units	RL
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
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 (meta)		<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

continued . . .

method blank continued . . .

Parameter	Flag	Result	Units	RL
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		52.9	µg/L	1	50.0	106	70 - 130
Toluene-d8		44.4	µg/L	1	50.0	89	70 - 130
4-Bromofluorobenzene (4-BFB)		48.6	µg/L	1	50.0	97	70 - 130

Method Blank (1) QC Batch: 9998

Parameter	Flag	Result	Units	RL
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

continued . . .

method blank continued . . .

Parameter	Flag	Result	Units	RL
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 (meta)		<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		54.4	µg/L	1	50.0	109	70 - 130
Toluene-d8		43.5	µg/L	1	50.0	87	70 - 130
4-Bromofluorobenzene (4-BFB)		48.1	µg/L	1	50.0	96	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 9591

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	102	104	µg/L	1	100	<0.136	102	2	78 - 120	20
Benzene	101	104	µg/L	1	100	<0.146	101	3	84.2 - 108	20
Trichloroethene (TCE)	99.0	101	µg/L	1	100	<0.117	99	2	85.8 - 106	20
Toluene	102	104	µg/L	1	100	0.2	102	2	77.2 - 104	20

continued . . .

control spikes continued . . .

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chlorobenzene	93.0	94.0	µg/L	1	100	<0.0540	93	1	82.1 - 113	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromofluoromethane	48.7	47.2	µg/L	1	50.0	97	94	70 - 130
Toluene-d8	46.9	46.5	µg/L	1	50.0	94	93	70 - 130
4-Bromofluorobenzene (4-BFB)	50.7	51.8	µg/L	1	50.0	101	104	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 9941

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	97.0	96.0	µg/L	1	100	<0.136	97	1	78 - 120	20
Benzene	99.0	101	µg/L	1	100	<0.146	99	2	84.2 - 108	20
Trichloroethene (TCE)	94.0	94.0	µg/L	1	100	<0.117	94	0	85.8 - 106	20
Toluene	97.0	98.0	µg/L	1	100	<0.0600	97	1	77.2 - 104	20
Chlorobenzene	92.0	93.0	µg/L	1	100	<0.0540	92	1	82.1 - 113	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromofluoromethane	48.2	46.3	µg/L	1	50.0	96	93	70 - 130
Toluene-d8	45.2	43.8	µg/L	1	50.0	90	88	70 - 130
4-Bromofluorobenzene (4-BFB)	45.7	41.9	µg/L	1	50.0	91	84	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 9985

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	98.0	98.0	µg/L	1	100	<0.136	98	0	78 - 120	20
Benzene	98.0	98.0	µg/L	1	100	<0.146	98	0	84.2 - 108	20
Trichloroethene (TCE)	95.0	94.0	µg/L	1	100	<0.117	95	1	85.8 - 106	20
Toluene	98.0	98.0	µg/L	1	100	0.16	98	0	77.2 - 104	20
Chlorobenzene	92.0	91.0	µg/L	1	100	<0.0540	92	1	82.1 - 113	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromofluoromethane	53.1	52.6	µg/L	1	50.0	106	105	70 - 130
Toluene-d8	44.3	44.3	µg/L	1	50.0	89	89	70 - 130
4-Bromofluorobenzene (4-BFB)	48.7	48.2	µg/L	1	50.0	97	96	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 9998

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	96.0	95.0	µg/L	1	100	<0.136	96	1	78 - 120	20
Benzene	101	100	µg/L	1	100	<0.146	101	1	84.2 - 108	20
Trichloroethene (TCE)	96.0	96.0	µg/L	1	100	<0.117	96	0	85.8 - 106	20
Toluene	98.0	99.0	µg/L	1	100	0.21	98	1	77.2 - 104	20
Chlorobenzene	92.0	92.0	µg/L	1	100	<0.0540	92	0	82.1 - 113	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromofluoromethane	53.3	53.4	µg/L	1	50.0	107	107	70 - 130
Toluene-d8	43.6	43.4	µg/L	1	50.0	87	87	70 - 130
4-Bromofluorobenzene (4-BFB)	48.4	48.4	µg/L	1	50.0	97	97	70 - 130

Matrix Spike (MS-1) QC Batch: 9985

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	99.0	99.0	µg/L	1	100	<0.136	99	0	74.6 - 124	20
Benzene	101	101	µg/L	1	100	<0.146	101	0	88.1 - 114	20
Trichloroethene (TCE)	95.0	95.0	µg/L	1	100	<0.117	95	0	86.7 - 104	20
Toluene	98.0	97.0	µg/L	1	100	<0.0600	98	1	84 - 114	20
Chlorobenzene	94.0	95.0	µg/L	1	100	<0.0540	94	1	92.3 - 109	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	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Dibromofluoromethane	54.6	55.0	µg/L	1	50	109	110	70 - 130
Toluene-d8	43.8	43.4	µg/L	1	50	88	87	70 - 130
4-Bromofluorobenzene (4-BFB)	48.2	48.2	µg/L	1	50	96	96	70 - 130

Standard (CCV-1) QC Batch: 9591

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	50.0	58.0	116	80 - 120	2004-05-11
1,1-Dichloroethene		µg/L	50.0	55.0	110	80 - 120	2004-05-11
Chloroform		µg/L	50.0	52.0	104	80 - 120	2004-05-11
1,2-Dichloropropane		µg/L	50.0	53.0	106	80 - 120	2004-05-11
Toluene		µg/L	50.0	54.0	108	80 - 120	2004-05-11
Chlorobenzene		µg/L	50.0	49.0	98	80 - 120	2004-05-11
Ethylbenzene		µg/L	50.0	49.0	98	80 - 120	2004-05-11

Standard (CCV-1) QC Batch: 9941

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	50.0	55.0	110	80 - 120	2004-05-12

continued...

standard continued . . .

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
1,1-Dichloroethene		µg/L	50.0	59.0	118	80 - 120	2004-05-12
Chloroform		µg/L	50.0	51.0	102	80 - 120	2004-05-12
1,2-Dichloropropane		µg/L	50.0	51.0	102	80 - 120	2004-05-12
Toluene		µg/L	50.0	53.0	106	80 - 120	2004-05-12
Chlorobenzene		µg/L	50.0	49.0	98	80 - 120	2004-05-12
Ethylbenzene		µg/L	50.0	47.0	94	80 - 120	2004-05-12

Standard (CCV-1) QC Batch: 9985

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	50.0	56.0	112	80 - 120	2004-05-13
1,1-Dichloroethene		µg/L	50.0	51.0	102	80 - 120	2004-05-13
Chloroform		µg/L	50.0	53.0	106	80 - 120	2004-05-13
1,2-Dichloropropane		µg/L	50.0	54.0	108	80 - 120	2004-05-13
Toluene		µg/L	50.0	53.0	106	80 - 120	2004-05-13
Chlorobenzene		µg/L	50.0	49.0	98	80 - 120	2004-05-13
Ethylbenzene		µg/L	50.0	46.0	92	80 - 120	2004-05-13

Standard (CCV-1) QC Batch: 9998

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	50.0	52.0	104	80 - 120	2004-05-18
1,1-Dichloroethene		µg/L	50.0	49.0	98	80 - 120	2004-05-18
Chloroform		µg/L	50.0	56.0	112	80 - 120	2004-05-18
1,2-Dichloropropane		µg/L	50.0	55.0	110	80 - 120	2004-05-18
Toluene		µg/L	50.0	54.0	108	80 - 120	2004-05-18
Chlorobenzene		µg/L	50.0	49.0	98	80 - 120	2004-05-18
Ethylbenzene		µg/L	50.0	47.0	94	80 - 120	2004-05-18

Analytical and Quality Control Report

Rene Rodriguez
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: June 14, 2004

Work Order: 4060406

Project Name: Ground water Sampling at HELSTF TSA
Project Number: 20-A11

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
35761	HLSF-TSA-HMW-048-0604	water	2004-06-03	09:40	2004-06-04
35763	HLSF-TSA-HMW-052-0604	water	2004-06-03	10:21	2004-06-04
35765	HLSF-TSA-HMW-044-0604	water	2004-06-02	14:32	2004-06-04
35767	HLSF-TSA-HMW-050-0604	water	2004-06-02	10:41	2004-06-04
35769	HLSF-TSA-HMW-150-0604	water	2004-06-02	10:41	2004-06-04

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 16 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 35761 - HLSF-TSA-HMW-048-0604

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3510C
QC Batch:	10349	Date Analyzed:	2004-06-08	Analyzed By:	RC
Prep Batch:	9151	Date Prepared:	2004-06-08	Prepared By:	RC

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.00500	mg/L	0.001	5.00
n-Nitrosodimethylamine		<0.00500	mg/L	0.001	5.00
2-Picoline		<0.00500	mg/L	0.001	5.00
Methyl methanesulfonate		<0.00500	mg/L	0.001	5.00
Ethyl methanesulfonate		<0.00500	mg/L	0.001	5.00
Phenol		<0.00500	mg/L	0.001	5.00
Aniline		<0.00500	mg/L	0.001	5.00
bis(2-chloroethyl)ether		<0.00500	mg/L	0.001	5.00
2-Chlorophenol		<0.00500	mg/L	0.001	5.00
1,3-Dichlorobenzene (meta)		<0.00500	mg/L	0.001	5.00
1,4-Dichlorobenzene (para)		<0.00500	mg/L	0.001	5.00
Benzyl alcohol		<0.00500	mg/L	0.001	5.00
1,2-Dichlorobenzene (ortho)		<0.00500	mg/L	0.001	5.00
2-Methylphenol		<0.00500	mg/L	0.001	5.00
bis(2-chloroisopropyl)ether		<0.00500	mg/L	0.001	5.00
4-Methylphenol / 3-Methylphenol		<0.00500	mg/L	0.001	5.00
n-Nitrosodi-n-propylamine		<0.00500	mg/L	0.001	5.00
Hexachloroethane		<0.00500	mg/L	0.001	5.00
Acetophenone		<0.00500	mg/L	0.001	5.00
Nitrobenzene		<0.00500	mg/L	0.001	5.00
n-Nitrosopiperidine		<0.00500	mg/L	0.001	5.00
Isophorone		<0.00500	mg/L	0.001	5.00
2-Nitrophenol		<0.00500	mg/L	0.001	5.00
2,4-Dimethylphenol		<0.00500	mg/L	0.001	5.00
bis(2-chloroethoxy)methane		<0.00500	mg/L	0.001	5.00
2,4-Dichlorophenol		<0.00500	mg/L	0.001	5.00
1,2,4-Trichlorobenzene		<0.00500	mg/L	0.001	5.00
Benzoic acid		<0.0200	mg/L	0.001	20.0
Naphthalene		<0.00500	mg/L	0.001	5.00
a,a-Dimethylphenethylamine		<0.00500	mg/L	0.001	5.00
4-Chloroaniline		<0.00500	mg/L	0.001	5.00
2,6-Dichlorophenol		<0.00500	mg/L	0.001	5.00
Hexachlorobutadiene		<0.00500	mg/L	0.001	5.00
n-Nitroso-di-n-butylamine		<0.00500	mg/L	0.001	5.00
4-Chloro-3-methylphenol		<0.00500	mg/L	0.001	5.00
2-Methylnaphthalene		<0.00500	mg/L	0.001	5.00
1-Methylnaphthalene		<0.00500	mg/L	0.001	5.00
1,2,4,5-Tetrachlorobenzene		<0.00500	mg/L	0.001	5.00
Hexachlorocyclopentadiene		<0.00500	mg/L	0.001	5.00
2,4,6-Trichlorophenol		<0.00500	mg/L	0.001	5.00
2,4,5-Trichlorophenol		<0.00500	mg/L	0.001	5.00
2-Chloronaphthalene		<0.00500	mg/L	0.001	5.00
1-Chloronaphthalene		<0.00500	mg/L	0.001	5.00
2-Nitroaniline		<0.00500	mg/L	0.001	5.00
Dimethylphthalate		<0.00500	mg/L	0.001	5.00

continued . . .

sample 35761 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Acenaphthylene		<0.00500	mg/L	0.001	5.00
2,6-Dinitrotoluene		<0.00500	mg/L	0.001	5.00
3-Nitroaniline		<0.00500	mg/L	0.001	5.00
Acenaphthene		<0.00500	mg/L	0.001	5.00
2,4-Dinitrophenol		<0.0200	mg/L	0.001	20.0
Dibenzofuran		<0.00500	mg/L	0.001	5.00
Pentachlorobenzene		<0.00500	mg/L	0.001	5.00
4-Nitrophenol		<0.00500	mg/L	0.001	5.00
2,4-Dinitrotoluene		<0.00500	mg/L	0.001	5.00
1-Naphthylamine		<0.00500	mg/L	0.001	5.00
2,3,4,6-Tetrachlorophenol		<0.00500	mg/L	0.001	5.00
2-Naphthylamine		<0.00500	mg/L	0.001	5.00
Fluorene		<0.00500	mg/L	0.001	5.00
4-Chlorophenyl-phenylether		<0.00500	mg/L	0.001	5.00
Diethylphthalate		<0.00500	mg/L	0.001	5.00
4-Nitroaniline		<0.00500	mg/L	0.001	5.00
Diphenylhydrazine		<0.00500	mg/L	0.001	5.00
4,6-Dinitro-2-methylphenol		<0.00500	mg/L	0.001	5.00
Diphenylamine		<0.00500	mg/L	0.001	5.00
4-Bromophenyl-phenylether		<0.00500	mg/L	0.001	5.00
Phenacetin		<0.00500	mg/L	0.001	5.00
Hexachlorobenzene		<0.00500	mg/L	0.001	5.00
4-Aminobiphenyl		<0.00500	mg/L	0.001	5.00
Pentachlorophenol		<0.00500	mg/L	0.001	5.00
Anthracene		<0.00500	mg/L	0.001	5.00
Pentachloronitrobenzene		<0.00500	mg/L	0.001	5.00
Pronamide		<0.00500	mg/L	0.001	5.00
Phenanthrene		<0.00500	mg/L	0.001	5.00
Di-n-butylphthalate		<0.00500	mg/L	0.001	5.00
Fluoranthene		<0.00500	mg/L	0.001	5.00
Benzidine		<0.0150	mg/L	0.001	15.0
Pyrene		<0.00500	mg/L	0.001	5.00
p-Dimethylaminoazobenzene		<0.00500	mg/L	0.001	5.00
Butylbenzylphthalate		<0.00500	mg/L	0.001	5.00
Benzo(a)anthracene		<0.00500	mg/L	0.001	5.00
3,3-Dichlorobenzidine		<0.00500	mg/L	0.001	5.00
Chrysene		<0.00500	mg/L	0.001	5.00
bis(2-ethylhexyl)phthalate		<0.0100	mg/L	0.001	10.0
Di-n-octylphthalate		<0.00500	mg/L	0.001	5.00
Benzo(b)fluoranthene		<0.00500	mg/L	0.001	5.00
Benzo(k)fluoranthene		<0.00500	mg/L	0.001	5.00
7,12-Dimethylbenz(a)anthracene		<0.00500	mg/L	0.001	5.00
Benzo(a)pyrene		<0.00500	mg/L	0.001	5.00
3-Methylcholanthrene		<0.00500	mg/L	0.001	5.00
Dibenzo(a,j)acridine		<0.00500	mg/L	0.001	5.00
Indeno(1,2,3-cd)pyrene		<0.00500	mg/L	0.001	5.00
Dibenzo(a,h)anthracene		<0.00500	mg/L	0.001	5.00
Benzo(g,h,i)perylene		<0.00500	mg/L	0.001	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.00850	mg/L	0.001	80.0	11	0 - 69.3
Phenol-d5		0.00877	mg/L	0.001	80.0	11	0 - 52.5
Nitrobenzene-d5		0.0251	mg/L	0.001	80.0	31	21.1 - 93.6
2-Fluorobiphenyl		0.0275	mg/L	0.001	80.0	34	25.4 - 87
2,4,6-Tribromophenol		0.0214	mg/L	0.001	80.0	27	14.9 - 110
Terphenyl-d14		0.0730	mg/L	0.001	80.0	91	28.9 - 124

Sample: 35763 - HLSF-TSA-HMW-052-0604

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3510C
QC Batch:	10349	Date Analyzed:	2004-06-08	Analyzed By:	RC
Prep Batch:	9151	Date Prepared:	2004-06-08	Prepared By:	RC

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.00500	mg/L	0.001	5.00
n-Nitrosodimethylamine		<0.00500	mg/L	0.001	5.00
2-Picoline		<0.00500	mg/L	0.001	5.00
Methyl methanesulfonate		<0.00500	mg/L	0.001	5.00
Ethyl methanesulfonate		<0.00500	mg/L	0.001	5.00
Phenol		<0.00500	mg/L	0.001	5.00
Aniline		<0.00500	mg/L	0.001	5.00
bis(2-chloroethyl)ether		<0.00500	mg/L	0.001	5.00
2-Chlorophenol		<0.00500	mg/L	0.001	5.00
1,3-Dichlorobenzene (meta)		<0.00500	mg/L	0.001	5.00
1,4-Dichlorobenzene (para)		<0.00500	mg/L	0.001	5.00
Benzyl alcohol		<0.00500	mg/L	0.001	5.00
1,2-Dichlorobenzene (ortho)		<0.00500	mg/L	0.001	5.00
2-Methylphenol		<0.00500	mg/L	0.001	5.00
bis(2-chloroisopropyl)ether		<0.00500	mg/L	0.001	5.00
4-Methylphenol / 3-Methylphenol		<0.00500	mg/L	0.001	5.00
n-Nitrosodi-n-propylamine		<0.00500	mg/L	0.001	5.00
Hexachloroethane		<0.00500	mg/L	0.001	5.00
Acetophenone		<0.00500	mg/L	0.001	5.00
Nitrobenzene		<0.00500	mg/L	0.001	5.00
n-Nitrosopiperidine		<0.00500	mg/L	0.001	5.00
Isophorone		<0.00500	mg/L	0.001	5.00
2-Nitrophenol		<0.00500	mg/L	0.001	5.00
2,4-Dimethylphenol		<0.00500	mg/L	0.001	5.00
bis(2-chloroethoxy)methane		<0.00500	mg/L	0.001	5.00
2,4-Dichlorophenol		<0.00500	mg/L	0.001	5.00
1,2,4-Trichlorobenzene		<0.00500	mg/L	0.001	5.00
Benzoic acid		<0.0200	mg/L	0.001	20.0
Naphthalene		<0.00500	mg/L	0.001	5.00
a,a-Dimethylphenethylamine		<0.00500	mg/L	0.001	5.00
4-Chloroaniline		<0.00500	mg/L	0.001	5.00
2,6-Dichlorophenol		<0.00500	mg/L	0.001	5.00
Hexachlorobutadiene		<0.00500	mg/L	0.001	5.00
n-Nitroso-di-n-butylamine		<0.00500	mg/L	0.001	5.00
4-Chloro-3-methylphenol		<0.00500	mg/L	0.001	5.00
2-Methylnaphthalene		<0.00500	mg/L	0.001	5.00

continued . . .

sample 35763 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
1-Methylnaphthalene		<0.00500	mg/L	0.001	5.00
1,2,4,5-Tetrachlorobenzene		<0.00500	mg/L	0.001	5.00
Hexachlorocyclopentadiene		<0.00500	mg/L	0.001	5.00
2,4,6-Trichlorophenol		<0.00500	mg/L	0.001	5.00
2,4,5-Trichlorophenol		<0.00500	mg/L	0.001	5.00
2-Chloronaphthalene		<0.00500	mg/L	0.001	5.00
1-Chloronaphthalene		<0.00500	mg/L	0.001	5.00
2-Nitroaniline		<0.00500	mg/L	0.001	5.00
Dimethylphthalate		<0.00500	mg/L	0.001	5.00
Acenaphthylene		<0.00500	mg/L	0.001	5.00
2,6-Dinitrotoluene		<0.00500	mg/L	0.001	5.00
3-Nitroaniline		<0.00500	mg/L	0.001	5.00
Acenaphthene		<0.00500	mg/L	0.001	5.00
2,4-Dinitrophenol		<0.0200	mg/L	0.001	20.0
Dibenzofuran		<0.00500	mg/L	0.001	5.00
Pentachlorobenzene		<0.00500	mg/L	0.001	5.00
4-Nitrophenol		<0.00500	mg/L	0.001	5.00
2,4-Dinitrotoluene		<0.00500	mg/L	0.001	5.00
1-Naphthylamine		<0.00500	mg/L	0.001	5.00
2,3,4,6-Tetrachlorophenol		<0.00500	mg/L	0.001	5.00
2-Naphthylamine		<0.00500	mg/L	0.001	5.00
Fluorene		<0.00500	mg/L	0.001	5.00
4-Chlorophenyl-phenylether		<0.00500	mg/L	0.001	5.00
Diethylphthalate		<0.00500	mg/L	0.001	5.00
4-Nitroaniline		<0.00500	mg/L	0.001	5.00
Diphenylhydrazine		<0.00500	mg/L	0.001	5.00
4,6-Dinitro-2-methylphenol		<0.00500	mg/L	0.001	5.00
Diphenylamine		<0.00500	mg/L	0.001	5.00
4-Bromophenyl-phenylether		<0.00500	mg/L	0.001	5.00
Phenacetin		<0.00500	mg/L	0.001	5.00
Hexachlorobenzene		<0.00500	mg/L	0.001	5.00
4-Aminobiphenyl		<0.00500	mg/L	0.001	5.00
Pentachlorophenol		<0.00500	mg/L	0.001	5.00
Anthracene		<0.00500	mg/L	0.001	5.00
Pentachloronitrobenzene		<0.00500	mg/L	0.001	5.00
Pronamide		<0.00500	mg/L	0.001	5.00
Phenanthrene		<0.00500	mg/L	0.001	5.00
Di-n-butylphthalate		<0.00500	mg/L	0.001	5.00
Fluoranthene		<0.00500	mg/L	0.001	5.00
Benzidine		<0.0150	mg/L	0.001	15.0
Pyrene		<0.00500	mg/L	0.001	5.00
p-Dimethylaminoazobenzene		<0.00500	mg/L	0.001	5.00
Butylbenzylphthalate		<0.00500	mg/L	0.001	5.00
Benzo(a)anthracene		<0.00500	mg/L	0.001	5.00
3,3-Dichlorobenzidine		<0.00500	mg/L	0.001	5.00
Chrysene		<0.00500	mg/L	0.001	5.00
bis(2-ethylhexyl)phthalate		<0.0100	mg/L	0.001	10.0
Di-n-octylphthalate		<0.00500	mg/L	0.001	5.00
Benzo(b)fluoranthene		<0.00500	mg/L	0.001	5.00
Benzo(k)fluoranthene		<0.00500	mg/L	0.001	5.00
7,12-Dimethylbenz(a)anthracene		<0.00500	mg/L	0.001	5.00

continued . . .

sample 35763 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Benzo(a)pyrene		<0.00500	mg/L	0.001	5.00
3-Methylcholanthrene		<0.00500	mg/L	0.001	5.00
Dibenzo(a,j)acridine		<0.00500	mg/L	0.001	5.00
Indeno(1,2,3-cd)pyrene		<0.00500	mg/L	0.001	5.00
Dibenzo(a,h)anthracene		<0.00500	mg/L	0.001	5.00
Benzo(g,h,i)perylene		<0.00500	mg/L	0.001	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.0362	mg/L	0.001	80.0	45	0 - 69.3
Phenol-d5		0.0216	mg/L	0.001	80.0	27	0 - 52.5
Nitrobenzene-d5	1	0.0773	mg/L	0.001	80.0	97	21.1 - 93.6
2-Fluorobiphenyl	2	0.0730	mg/L	0.001	80.0	91	25.4 - 87
2,4,6-Tribromophenol		0.0851	mg/L	0.001	80.0	106	14.9 - 110
Terphenyl-d14		0.0896	mg/L	0.001	80.0	112	28.9 - 124

Sample: 35765 - HLSF-TSA-HMW-044-0604

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3510C
QC Batch:	10349	Date Analyzed:	2004-06-08	Analyzed By:	RC
Prep Batch:	9151	Date Prepared:	2004-06-08	Prepared By:	RC

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.00500	mg/L	0.001	5.00
n-Nitrosodimethylamine		<0.00500	mg/L	0.001	5.00
2-Picoline		<0.00500	mg/L	0.001	5.00
Methyl methanesulfonate		<0.00500	mg/L	0.001	5.00
Ethyl methanesulfonate		<0.00500	mg/L	0.001	5.00
Phenol		<0.00500	mg/L	0.001	5.00
Aniline		<0.00500	mg/L	0.001	5.00
bis(2-chloroethyl)ether		<0.00500	mg/L	0.001	5.00
2-Chlorophenol		<0.00500	mg/L	0.001	5.00
1,3-Dichlorobenzene (meta)		<0.00500	mg/L	0.001	5.00
1,4-Dichlorobenzene (para)		<0.00500	mg/L	0.001	5.00
Benzyl alcohol		<0.00500	mg/L	0.001	5.00
1,2-Dichlorobenzene (ortho)		<0.00500	mg/L	0.001	5.00
2-Methylphenol		<0.00500	mg/L	0.001	5.00
bis(2-chloroisopropyl)ether		<0.00500	mg/L	0.001	5.00
4-Methylphenol / 3-Methylphenol		<0.00500	mg/L	0.001	5.00
n-Nitrosodi-n-propylamine		<0.00500	mg/L	0.001	5.00
Hexachloroethane		<0.00500	mg/L	0.001	5.00
Acetophenone		<0.00500	mg/L	0.001	5.00
Nitrobenzene		<0.00500	mg/L	0.001	5.00
n-Nitrosopiperidine		<0.00500	mg/L	0.001	5.00
Isophorone		<0.00500	mg/L	0.001	5.00
2-Nitrophenol		<0.00500	mg/L	0.001	5.00

continued . . .

[1]Sample surrogate recovery out of limits due to sample matrix.
[2]Sample surrogate recovery out of limits due to sample matrix.

sample 35765 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2,4-Dimethylphenol		<0.00500	mg/L	0.001	5.00
bis(2-chloroethoxy)methane		<0.00500	mg/L	0.001	5.00
2,4-Dichlorophenol		<0.00500	mg/L	0.001	5.00
1,2,4-Trichlorobenzene		<0.00500	mg/L	0.001	5.00
Benzoic acid		<0.0200	mg/L	0.001	20.0
Naphthalene		<0.00500	mg/L	0.001	5.00
a,a-Dimethylphenethylamine		<0.00500	mg/L	0.001	5.00
4-Chloroaniline		<0.00500	mg/L	0.001	5.00
2,6-Dichlorophenol		<0.00500	mg/L	0.001	5.00
Hexachlorobutadiene		<0.00500	mg/L	0.001	5.00
n-Nitroso-di-n-butylamine		<0.00500	mg/L	0.001	5.00
4-Chloro-3-methylphenol		<0.00500	mg/L	0.001	5.00
2-Methylnaphthalene		<0.00500	mg/L	0.001	5.00
1-Methylnaphthalene		<0.00500	mg/L	0.001	5.00
1,2,4,5-Tetrachlorobenzene		<0.00500	mg/L	0.001	5.00
Hexachlorocyclopentadiene		<0.00500	mg/L	0.001	5.00
2,4,6-Trichlorophenol		<0.00500	mg/L	0.001	5.00
2,4,5-Trichlorophenol		<0.00500	mg/L	0.001	5.00
2-Chloronaphthalene		<0.00500	mg/L	0.001	5.00
1-Chloronaphthalene		<0.00500	mg/L	0.001	5.00
2-Nitroaniline		<0.00500	mg/L	0.001	5.00
Dimethylphthalate		<0.00500	mg/L	0.001	5.00
Acenaphthylene		<0.00500	mg/L	0.001	5.00
2,6-Dinitrotoluene		<0.00500	mg/L	0.001	5.00
3-Nitroaniline		<0.00500	mg/L	0.001	5.00
Acenaphthene		<0.00500	mg/L	0.001	5.00
2,4-Dinitrophenol		<0.0200	mg/L	0.001	20.0
Dibenzofuran		<0.00500	mg/L	0.001	5.00
Pentachlorobenzene		<0.00500	mg/L	0.001	5.00
4-Nitrophenol		<0.00500	mg/L	0.001	5.00
2,4-Dinitrotoluene		<0.00500	mg/L	0.001	5.00
1-Naphthylamine		<0.00500	mg/L	0.001	5.00
2,3,4,6-Tetrachlorophenol		<0.00500	mg/L	0.001	5.00
2-Naphthylamine		<0.00500	mg/L	0.001	5.00
Fluorene		<0.00500	mg/L	0.001	5.00
4-Chlorophenyl-phenylether		<0.00500	mg/L	0.001	5.00
Diethylphthalate		<0.00500	mg/L	0.001	5.00
4-Nitroaniline		<0.00500	mg/L	0.001	5.00
Diphenylhydrazine		<0.00500	mg/L	0.001	5.00
4,6-Dinitro-2-methylphenol		<0.00500	mg/L	0.001	5.00
Diphenylamine		<0.00500	mg/L	0.001	5.00
4-Bromophenyl-phenylether		<0.00500	mg/L	0.001	5.00
Phenacetin		<0.00500	mg/L	0.001	5.00
Hexachlorobenzene		<0.00500	mg/L	0.001	5.00
4-Aminobiphenyl		<0.00500	mg/L	0.001	5.00
Pentachlorophenol		<0.00500	mg/L	0.001	5.00
Anthracene		<0.00500	mg/L	0.001	5.00
Pentachloronitrobenzene		<0.00500	mg/L	0.001	5.00
Pronamide		<0.00500	mg/L	0.001	5.00
Phenanthrene		<0.00500	mg/L	0.001	5.00
Di-n-butylphthalate		<0.00500	mg/L	0.001	5.00

continued . . .

sample 35765 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Fluoranthene		<0.00500	mg/L	0.001	5.00
Benzidine		<0.0150	mg/L	0.001	15.0
Pyrene		<0.00500	mg/L	0.001	5.00
p-Dimethylaminoazobenzene		<0.00500	mg/L	0.001	5.00
Butylbenzylphthalate		<0.00500	mg/L	0.001	5.00
Benzo(a)anthracene		<0.00500	mg/L	0.001	5.00
3,3-Dichlorobenzidine		<0.00500	mg/L	0.001	5.00
Chrysene		<0.00500	mg/L	0.001	5.00
bis(2-ethylhexyl)phthalate		<0.0100	mg/L	0.001	10.0
Di-n-octylphthalate		<0.00500	mg/L	0.001	5.00
Benzo(b)fluoranthene		<0.00500	mg/L	0.001	5.00
Benzo(k)fluoranthene		<0.00500	mg/L	0.001	5.00
7,12-Dimethylbenz(a)anthracene		<0.00500	mg/L	0.001	5.00
Benzo(a)pyrene		<0.00500	mg/L	0.001	5.00
3-Methylcholanthrene		<0.00500	mg/L	0.001	5.00
Dibenzo(a,j)acridine		<0.00500	mg/L	0.001	5.00
Indeno(1,2,3-cd)pyrene		<0.00500	mg/L	0.001	5.00
Dibenzo(a,h)anthracene		<0.00500	mg/L	0.001	5.00
Benzo(g,h,i)perylene		<0.00500	mg/L	0.001	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.0302	mg/L	0.001	80.0	38	0 - 69.3
Phenol-d5		0.0179	mg/L	0.001	80.0	22	0 - 52.5
Nitrobenzene-d5		0.0663	mg/L	0.001	80.0	83	21.1 - 93.6
2-Fluorobiphenyl		0.0652	mg/L	0.001	80.0	82	25.4 - 87
2,4,6-Tribromophenol		0.0714	mg/L	0.001	80.0	89	14.9 - 110
Terphenyl-d14		0.0900	mg/L	0.001	80.0	112	28.9 - 124

Sample: 35767 - HLSF-TSA-HMW-050-0604

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3510C
QC Batch:	10349	Date Analyzed:	2004-06-08	Analyzed By:	RC
Prep Batch:	9151	Date Prepared:	2004-06-08	Prepared By:	RC

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.00500	mg/L	0.001	5.00
n-Nitrosodimethylamine		<0.00500	mg/L	0.001	5.00
2-Picoline		<0.00500	mg/L	0.001	5.00
Methyl methanesulfonate		<0.00500	mg/L	0.001	5.00
Ethyl methanesulfonate		<0.00500	mg/L	0.001	5.00
Phenol		<0.00500	mg/L	0.001	5.00
Aniline		<0.00500	mg/L	0.001	5.00
bis(2-chloroethyl)ether		<0.00500	mg/L	0.001	5.00
2-Chlorophenol		<0.00500	mg/L	0.001	5.00
1,3-Dichlorobenzene (meta)		<0.00500	mg/L	0.001	5.00
1,4-Dichlorobenzene (para)		<0.00500	mg/L	0.001	5.00
Benzyl alcohol		<0.00500	mg/L	0.001	5.00

continued . . .

sample 35767 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
1,2-Dichlorobenzene (ortho)		<0.00500	mg/L	0.001	5.00
2-Methylphenol		<0.00500	mg/L	0.001	5.00
bis(2-chloroisopropyl)ether		<0.00500	mg/L	0.001	5.00
4-Methylphenol / 3-Methylphenol		<0.00500	mg/L	0.001	5.00
n-Nitrosodi-n-propylamine		<0.00500	mg/L	0.001	5.00
Hexachloroethane		<0.00500	mg/L	0.001	5.00
Acetophenone		<0.00500	mg/L	0.001	5.00
Nitrobenzene		<0.00500	mg/L	0.001	5.00
n-Nitrosopiperidine		<0.00500	mg/L	0.001	5.00
Isophorone		<0.00500	mg/L	0.001	5.00
2-Nitrophenol		<0.00500	mg/L	0.001	5.00
2,4-Dimethylphenol		<0.00500	mg/L	0.001	5.00
bis(2-chloroethoxy)methane		<0.00500	mg/L	0.001	5.00
2,4-Dichlorophenol		<0.00500	mg/L	0.001	5.00
1,2,4-Trichlorobenzene		<0.00500	mg/L	0.001	5.00
Benzoic acid		<0.0200	mg/L	0.001	20.0
Naphthalene		<0.00500	mg/L	0.001	5.00
a,a-Dimethylphenethylamine		<0.00500	mg/L	0.001	5.00
4-Chloroaniline		<0.00500	mg/L	0.001	5.00
2,6-Dichlorophenol		<0.00500	mg/L	0.001	5.00
Hexachlorobutadiene		<0.00500	mg/L	0.001	5.00
n-Nitroso-di-n-butylamine		<0.00500	mg/L	0.001	5.00
4-Chloro-3-methylphenol		<0.00500	mg/L	0.001	5.00
2-Methylnaphthalene		<0.00500	mg/L	0.001	5.00
1-Methylnaphthalene		<0.00500	mg/L	0.001	5.00
1,2,4,5-Tetrachlorobenzene		<0.00500	mg/L	0.001	5.00
Hexachlorocyclopentadiene		<0.00500	mg/L	0.001	5.00
2,4,6-Trichlorophenol		<0.00500	mg/L	0.001	5.00
2,4,5-Trichlorophenol		<0.00500	mg/L	0.001	5.00
2-Chloronaphthalene		<0.00500	mg/L	0.001	5.00
1-Chloronaphthalene		<0.00500	mg/L	0.001	5.00
2-Nitroaniline		<0.00500	mg/L	0.001	5.00
Dimethylphthalate		<0.00500	mg/L	0.001	5.00
Acenaphthylene		<0.00500	mg/L	0.001	5.00
2,6-Dinitrotoluene		<0.00500	mg/L	0.001	5.00
3-Nitroaniline		<0.00500	mg/L	0.001	5.00
Acenaphthene		<0.00500	mg/L	0.001	5.00
2,4-Dinitrophenol		<0.0200	mg/L	0.001	20.0
Dibenzofuran		<0.00500	mg/L	0.001	5.00
Pentachlorobenzene		<0.00500	mg/L	0.001	5.00
4-Nitrophenol		<0.00500	mg/L	0.001	5.00
2,4-Dinitrotoluene		<0.00500	mg/L	0.001	5.00
1-Naphthylamine		<0.00500	mg/L	0.001	5.00
2,3,4,6-Tetrachlorophenol		<0.00500	mg/L	0.001	5.00
2-Naphthylamine		<0.00500	mg/L	0.001	5.00
Fluorene		<0.00500	mg/L	0.001	5.00
4-Chlorophenyl-phenylether		<0.00500	mg/L	0.001	5.00
Diethylphthalate		<0.00500	mg/L	0.001	5.00
4-Nitroaniline		<0.00500	mg/L	0.001	5.00
Diphenylhydrazine		<0.00500	mg/L	0.001	5.00
4,6-Dinitro-2-methylphenol		<0.00500	mg/L	0.001	5.00

continued . . .

sample 35767 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Diphenylamine		<0.00500	mg/L	0.001	5.00
4-Bromophenyl-phenylether		<0.00500	mg/L	0.001	5.00
Phenacetin		<0.00500	mg/L	0.001	5.00
Hexachlorobenzene		<0.00500	mg/L	0.001	5.00
4-Aminobiphenyl		<0.00500	mg/L	0.001	5.00
Pentachlorophenol		<0.00500	mg/L	0.001	5.00
Anthracene		<0.00500	mg/L	0.001	5.00
Pentachloronitrobenzene		<0.00500	mg/L	0.001	5.00
Pronamide		<0.00500	mg/L	0.001	5.00
Phenanthrene		<0.00500	mg/L	0.001	5.00
Di-n-butylphthalate		<0.00500	mg/L	0.001	5.00
Fluoranthene		<0.00500	mg/L	0.001	5.00
Benzidine		<0.0150	mg/L	0.001	15.0
Pyrene		<0.00500	mg/L	0.001	5.00
p-Dimethylaminoazobenzene		<0.00500	mg/L	0.001	5.00
Butylbenzylphthalate		<0.00500	mg/L	0.001	5.00
Benzo(a)anthracene		<0.00500	mg/L	0.001	5.00
3,3-Dichlorobenzidine		<0.00500	mg/L	0.001	5.00
Chrysene		<0.00500	mg/L	0.001	5.00
bis(2-ethylhexyl)phthalate		<0.0100	mg/L	0.001	10.0
Di-n-octylphthalate		<0.00500	mg/L	0.001	5.00
Benzo(b)fluoranthene		<0.00500	mg/L	0.001	5.00
Benzo(k)fluoranthene		<0.00500	mg/L	0.001	5.00
7,12-Dimethylbenz(a)anthracene		<0.00500	mg/L	0.001	5.00
Benzo(a)pyrene		<0.00500	mg/L	0.001	5.00
3-Methylcholanthrene		<0.00500	mg/L	0.001	5.00
Dibenzo(a,j)acridine		<0.00500	mg/L	0.001	5.00
Indeno(1,2,3-cd)pyrene		<0.00500	mg/L	0.001	5.00
Dibenzo(a,h)anthracene		<0.00500	mg/L	0.001	5.00
Benzo(g,h,i)perylene		<0.00500	mg/L	0.001	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.0165	mg/L	0.001	80.0	21	0 - 69.3
Phenol-d5		0.00942	mg/L	0.001	80.0	12	0 - 52.5
Nitrobenzene-d5		0.0377	mg/L	0.001	80.0	47	21.1 - 93.6
2-Fluorobiphenyl		0.0372	mg/L	0.001	80.0	46	25.4 - 87
2,4,6-Tribromophenol		0.0484	mg/L	0.001	80.0	60	14.9 - 110
Terphenyl-d14		0.0670	mg/L	0.001	80.0	84	28.9 - 124

Sample: 35769 - HLSF-TSA-HMW-150-0604

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3510C
QC Batch:	10349	Date Analyzed:	2004-06-08	Analyzed By:	RC
Prep Batch:	9151	Date Prepared:	2004-06-08	Prepared By:	RC

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.00500	mg/L	0.001	5.00

continued . . .

sample 35769 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
n-Nitrosodimethylamine		<0.00500	mg/L	0.001	5.00
2-Picoline		<0.00500	mg/L	0.001	5.00
Methyl methanesulfonate		<0.00500	mg/L	0.001	5.00
Ethyl methanesulfonate		<0.00500	mg/L	0.001	5.00
Phenol		<0.00500	mg/L	0.001	5.00
Aniline		<0.00500	mg/L	0.001	5.00
bis(2-chloroethyl)ether		<0.00500	mg/L	0.001	5.00
2-Chlorophenol		<0.00500	mg/L	0.001	5.00
1,3-Dichlorobenzene (meta)		<0.00500	mg/L	0.001	5.00
1,4-Dichlorobenzene (para)		<0.00500	mg/L	0.001	5.00
Benzyl alcohol		<0.00500	mg/L	0.001	5.00
1,2-Dichlorobenzene (ortho)		<0.00500	mg/L	0.001	5.00
2-Methylphenol		<0.00500	mg/L	0.001	5.00
bis(2-chloroisopropyl)ether		<0.00500	mg/L	0.001	5.00
4-Methylphenol / 3-Methylphenol		<0.00500	mg/L	0.001	5.00
n-Nitrosodi-n-propylamine		<0.00500	mg/L	0.001	5.00
Hexachloroethane		<0.00500	mg/L	0.001	5.00
Acetophenone		<0.00500	mg/L	0.001	5.00
Nitrobenzene		<0.00500	mg/L	0.001	5.00
n-Nitrosopiperidine		<0.00500	mg/L	0.001	5.00
Isophorone		<0.00500	mg/L	0.001	5.00
2-Nitrophenol		<0.00500	mg/L	0.001	5.00
2,4-Dimethylphenol		<0.00500	mg/L	0.001	5.00
bis(2-chloroethoxy)methane		<0.00500	mg/L	0.001	5.00
2,4-Dichlorophenol		<0.00500	mg/L	0.001	5.00
1,2,4-Trichlorobenzene		<0.00500	mg/L	0.001	5.00
Benzoic acid		<0.0200	mg/L	0.001	20.0
Naphthalene		<0.00500	mg/L	0.001	5.00
a,a-Dimethylphenethylamine		<0.00500	mg/L	0.001	5.00
4-Chloroaniline		<0.00500	mg/L	0.001	5.00
2,6-Dichlorophenol		<0.00500	mg/L	0.001	5.00
Hexachlorobutadiene		<0.00500	mg/L	0.001	5.00
n-Nitroso-di-n-butylamine		<0.00500	mg/L	0.001	5.00
4-Chloro-3-methylphenol		<0.00500	mg/L	0.001	5.00
2-Methylnaphthalene		<0.00500	mg/L	0.001	5.00
1-Methylnaphthalene		<0.00500	mg/L	0.001	5.00
1,2,4,5-Tetrachlorobenzene		<0.00500	mg/L	0.001	5.00
Hexachlorocyclopentadiene		<0.00500	mg/L	0.001	5.00
2,4,6-Trichlorophenol		<0.00500	mg/L	0.001	5.00
2,4,5-Trichlorophenol		<0.00500	mg/L	0.001	5.00
2-Chloronaphthalene		<0.00500	mg/L	0.001	5.00
1-Chloronaphthalene		<0.00500	mg/L	0.001	5.00
2-Nitroaniline		<0.00500	mg/L	0.001	5.00
Dimethylphthalate		<0.00500	mg/L	0.001	5.00
Acenaphthylene		<0.00500	mg/L	0.001	5.00
2,6-Dinitrotoluene		<0.00500	mg/L	0.001	5.00
3-Nitroaniline		<0.00500	mg/L	0.001	5.00
Acenaphthene		<0.00500	mg/L	0.001	5.00
2,4-Dinitrophenol		<0.0200	mg/L	0.001	20.0
Dibenzofuran		<0.00500	mg/L	0.001	5.00
Pentachlorobenzene		<0.00500	mg/L	0.001	5.00

continued . . .

sample 35769 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
4-Nitrophenol		<0.00500	mg/L	0.001	5.00
2,4-Dinitrotoluene		<0.00500	mg/L	0.001	5.00
1-Naphthylamine		<0.00500	mg/L	0.001	5.00
2,3,4,6-Tetrachlorophenol		<0.00500	mg/L	0.001	5.00
2-Naphthylamine		<0.00500	mg/L	0.001	5.00
Fluorene		<0.00500	mg/L	0.001	5.00
4-Chlorophenyl-phenylether		<0.00500	mg/L	0.001	5.00
Diethylphthalate		<0.00500	mg/L	0.001	5.00
4-Nitroaniline		<0.00500	mg/L	0.001	5.00
Diphenylhydrazine		<0.00500	mg/L	0.001	5.00
4,6-Dinitro-2-methylphenol		<0.00500	mg/L	0.001	5.00
Diphenylamine		<0.00500	mg/L	0.001	5.00
4-Bromophenyl-phenylether		<0.00500	mg/L	0.001	5.00
Phenacetin		<0.00500	mg/L	0.001	5.00
Hexachlorobenzene		<0.00500	mg/L	0.001	5.00
4-Aminobiphenyl		<0.00500	mg/L	0.001	5.00
Pentachlorophenol		<0.00500	mg/L	0.001	5.00
Anthracene		<0.00500	mg/L	0.001	5.00
Pentachloronitrobenzene		<0.00500	mg/L	0.001	5.00
Pronamide		<0.00500	mg/L	0.001	5.00
Phenanthrene		<0.00500	mg/L	0.001	5.00
Di-n-butylphthalate		<0.00500	mg/L	0.001	5.00
Fluoranthene		<0.00500	mg/L	0.001	5.00
Benzidine		<0.0150	mg/L	0.001	15.0
Pyrene		<0.00500	mg/L	0.001	5.00
p-Dimethylaminoazobenzene		<0.00500	mg/L	0.001	5.00
Butylbenzylphthalate		<0.00500	mg/L	0.001	5.00
Benzo(a)anthracene		<0.00500	mg/L	0.001	5.00
3,3-Dichlorobenzidine		<0.00500	mg/L	0.001	5.00
Chrysene		<0.00500	mg/L	0.001	5.00
bis(2-ethylhexyl)phthalate		<0.0100	mg/L	0.001	10.0
Di-n-octylphthalate		<0.00500	mg/L	0.001	5.00
Benzo(b)fluoranthene		<0.00500	mg/L	0.001	5.00
Benzo(k)fluoranthene		<0.00500	mg/L	0.001	5.00
7,12-Dimethylbenz(a)anthracene		<0.00500	mg/L	0.001	5.00
Benzo(a)pyrene		<0.00500	mg/L	0.001	5.00
3-Methylcholanthrene		<0.00500	mg/L	0.001	5.00
Dibenzo(a,j)acridine		<0.00500	mg/L	0.001	5.00
Indeno(1,2,3-cd)pyrene		<0.00500	mg/L	0.001	5.00
Dibenzo(a,h)anthracene		<0.00500	mg/L	0.001	5.00
Benzo(g,h,i)perylene		<0.00500	mg/L	0.001	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.0308	mg/L	0.001	80.0	38	0 - 69.3
Phenol-d5		0.0183	mg/L	0.001	80.0	23	0 - 52.5
Nitrobenzene-d5		0.0630	mg/L	0.001	80.0	79	21.1 - 93.6
2-Fluorobiphenyl		0.0636	mg/L	0.001	80.0	80	25.4 - 87
2,4,6-Tribromophenol		0.0663	mg/L	0.001	80.0	83	14.9 - 110
Terphenyl-d14		0.0777	mg/L	0.001	80.0	97	28.9 - 124

Method Blank (1) QC Batch: 10349

Parameter	Flag	Result	Units	RL
Pyridine		<0.00500	mg/L	5
n-Nitrosodimethylamine		<0.00500	mg/L	5
2-Picoline		<0.00500	mg/L	5
Methyl methanesulfonate		<0.00500	mg/L	5
Ethyl methanesulfonate		<0.00500	mg/L	5
Phenol		<0.00500	mg/L	5
Aniline		<0.00500	mg/L	5
bis(2-chloroethyl)ether		<0.00500	mg/L	5
2-Chlorophenol		<0.00500	mg/L	5
1,3-Dichlorobenzene (meta)		<0.00500	mg/L	5
1,4-Dichlorobenzene (para)		<0.00500	mg/L	5
Benzyl alcohol		<0.00500	mg/L	5
1,2-Dichlorobenzene (ortho)		<0.00500	mg/L	5
2-Methylphenol		<0.00500	mg/L	5
bis(2-chloroisopropyl)ether		<0.00500	mg/L	5
4-Methylphenol / 3-Methylphenol		<0.00500	mg/L	5
n-Nitrosodi-n-propylamine		<0.00500	mg/L	5
Hexachloroethane		<0.00500	mg/L	5
Acetophenone		<0.00500	mg/L	5
Nitrobenzene		<0.00500	mg/L	5
n-Nitrosopiperidine		<0.00500	mg/L	5
Isophorone		<0.00500	mg/L	5
2-Nitrophenol		<0.00500	mg/L	5
2,4-Dimethylphenol		<0.00500	mg/L	5
bis(2-chloroethoxy)methane		<0.00500	mg/L	5
2,4-Dichlorophenol		<0.00500	mg/L	5
1,2,4-Trichlorobenzene		<0.00500	mg/L	5
Benzoic acid		<0.0200	mg/L	20
Naphthalene		<0.00500	mg/L	5
a,a-Dimethylphenethylamine		<0.00500	mg/L	5
4-Chloroaniline		<0.00500	mg/L	5
2,6-Dichlorophenol		<0.00500	mg/L	5
Hexachlorobutadiene		<0.00500	mg/L	5
n-Nitroso-di-n-butylamine		<0.00500	mg/L	5
4-Chloro-3-methylphenol		<0.00500	mg/L	5
2-Methylnaphthalene		<0.00500	mg/L	5
1-Methylnaphthalene		<0.00500	mg/L	5
1,2,4,5-Tetrachlorobenzene		<0.00500	mg/L	5
Hexachlorocyclopentadiene		<0.00500	mg/L	5
2,4,6-Trichlorophenol		<0.00500	mg/L	5
2,4,5-Trichlorophenol		<0.00500	mg/L	5
2-Chloronaphthalene		<0.00500	mg/L	5
1-Chloronaphthalene		<0.00500	mg/L	5
2-Nitroaniline		<0.00500	mg/L	5
Dimethylphthalate		<0.00500	mg/L	5
Acenaphthylene		<0.00500	mg/L	5
2,6-Dinitrotoluene		<0.00500	mg/L	5
3-Nitroaniline		<0.00500	mg/L	5
Acenaphthene		<0.00500	mg/L	5
2,4-Dinitrophenol		<0.0200	mg/L	20
Dibenzofuran		<0.00500	mg/L	5

continued...

method blank continued . . .

Parameter	Flag	Result	Units	RL
Pentachlorobenzene		<0.00500	mg/L	5
4-Nitrophenol		<0.00500	mg/L	5
2,4-Dinitrotoluene		<0.00500	mg/L	5
1-Naphthylamine		<0.00500	mg/L	5
2,3,4,6-Tetrachlorophenol		<0.00500	mg/L	5
2-Naphthylamine		<0.00500	mg/L	5
Fluorene		<0.00500	mg/L	5
4-Chlorophenyl-phenylether		<0.00500	mg/L	5
Diethylphthalate		<0.00500	mg/L	5
4-Nitroaniline		<0.00500	mg/L	5
Diphenylhydrazine		<0.00500	mg/L	5
4,6-Dinitro-2-methylphenol		<0.00500	mg/L	5
Diphenylamine		<0.00500	mg/L	5
4-Bromophenyl-phenylether		<0.00500	mg/L	5
Phenacetin		<0.00500	mg/L	5
Hexachlorobenzene		<0.00500	mg/L	5
4-Aminobiphenyl		<0.00500	mg/L	5
Pentachlorophenol		<0.00500	mg/L	5
Anthracene		<0.00500	mg/L	5
Pentachloronitrobenzene		<0.00500	mg/L	5
Pronamide		<0.00500	mg/L	5
Phenanthrene		<0.00500	mg/L	5
Di-n-butylphthalate		<0.00500	mg/L	5
Fluoranthene		<0.00500	mg/L	5
Benzidine		<0.0150	mg/L	15
Pyrene		<0.00500	mg/L	5
p-Dimethylaminoazobenzene		<0.00500	mg/L	5
Butylbenzylphthalate		<0.00500	mg/L	5
Benzo(a)anthracene		<0.00500	mg/L	5
3,3-Dichlorobenzidine		<0.00500	mg/L	5
Chrysene		<0.00500	mg/L	5
bis(2-ethylhexyl)phthalate		<0.0100	mg/L	10
Di-n-octylphthalate		<0.00500	mg/L	5
Benzo(b)fluoranthene		<0.00500	mg/L	5
Benzo(k)fluoranthene		<0.00500	mg/L	5
7,12-Dimethylbenz(a)anthracene		<0.00500	mg/L	5
Benzo(a)pyrene		<0.00500	mg/L	5
3-Methylcholanthrene		<0.00500	mg/L	5
Dibenzo(a,j)acridine		<0.00500	mg/L	5
Indeno(1,2,3-cd)pyrene		<0.00500	mg/L	5
Dibenzo(a,h)anthracene		<0.00500	mg/L	5
Benzo(g,h,i)perylene		<0.00500	mg/L	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.0335	mg/L	0.001	80.0	42	0 - 69.3
Phenol-d5		0.0194	mg/L	0.001	80.0	24	0 - 52.5
Nitrobenzene-d5		0.0657	mg/L	0.001	80.0	82	21.1 - 93.6
2-Fluorobiphenyl		0.0656	mg/L	0.001	80.0	82	25.4 - 87
2,4,6-Tribromophenol		0.0561	mg/L	0.001	80.0	70	14.9 - 110
Terphenyl-d14		0.0760	mg/L	0.001	80.0	95	28.9 - 124

Laboratory Control Spike (LCS-1) QC Batch: 10349

Param		LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Phenol		22.5	22.2	mg/L	1	80.0	<0.490	28	1	0 - 52.1	20
2-Chlorophenol		69.6	70.3	mg/L	1	80.0	<1.63	87	1	9.7 - 98.2	20
1,4-Dichlorobenzene (para)	[3]	90.4	88.4	mg/L	1	80.0	<1.93	113	2	18.1 - 111	20
n-Nitrosodi-n-propylamine	[4][5]	111	114	mg/L	1	80.0	<2.26	139	3	36.6 - 121	20
1,2,4-Trichlorobenzene	[6][7]	98.4	100	mg/L	1	80.0	<1.52	123	2	20.8 - 112	20
4-Chloro-3-methylphenol		77.9	81.3	mg/L	1	80.0	<1.60	97	4	14.3 - 102	20
Acenaphthene		79.6	80.1	mg/L	1	80.0	<1.58	100	1	32.6 - 123	20
4-Nitrophenol		3.88	4.06	mg/L	1	80.0	<3.83	5	4	0 - 51.9	20
2,4-Dinitrotoluene		89.2	91.5	mg/L	1	80.0	<2.09	112	2	32.6 - 138	20
Pentachlorophenol		66.0	66.2	mg/L	1	80.0	<3.04	82	0	0 - 121	20
Pyrene		84.0	85.2	mg/L	1	80.0	<1.81	105	1	38.4 - 146	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
2-Fluorophenol		33.8	33.7	mg/L	1	80.0	42	42	0 - 69.3
Phenol-d5		22.0	21.7	mg/L	1	80.0	28	27	0 - 52.5
Nitrobenzene-d5		70.5	72.5	mg/L	1	80.0	88	91	21.1 - 93.6
2-Fluorobiphenyl	[8][9]	70.6	70.1	mg/L	1	80.0	88	88	25.4 - 87
2,4,6-Tribromophenol		68.2	70.7	mg/L	1	80.0	85	88	14.9 - 110
Terphenyl-d14		77.4	78.4	mg/L	1	80.0	97	98	28.9 - 124

Matrix Spike (MS-1) QC Batch: 10349

Param		MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Phenol		22.9	22.9	mg/L	1	80.0	<0.490	29	0	0 - 59.4	
2-Chlorophenol	[10][11]	72.9	72.9	mg/L	1	80.0	<1.63	91	0	33.87 - 76.65	
1,4-Dichlorobenzene (para)	[12][13]	98.1	98.0	mg/L	1	80.0	<1.93	123	0	5.66 - 106.63	
n-Nitrosodi-n-propylamine	[14][15]	129	125	mg/L	1	80.0	<2.26	161	3	2.12 - 116.53	
1,2,4-Trichlorobenzene	[16][17]	111	109	mg/L	1	80.0	<1.52	139	2	8.26 - 101.73	
4-Chloro-3-methylphenol	[18][19]	87.0	85.2	mg/L	1	80.0	<1.60	109	2	49.08 - 66.06	

continued...

[3]The average of the spike compounds shows that the process is in control.
[4]The average of the spike compounds shows that the process is in control.
[5]The average of the spike compounds shows that the process is in control.
[6]The average of the spike compounds shows that the process is in control.
[7]The average of the spike compounds shows that the process is in control.
[8]The average of the spike compounds shows that the process is in control.
[9]The average of the spike compounds shows that the process is in control.
[10]Matrix spike result out of limits due to sample matrix.
[11]Matrix spike result out of limits due to sample matrix.
[12]Matrix spike result out of limits due to sample matrix.
[13]Matrix spike result out of limits due to sample matrix.
[14]Matrix spike result out of limits due to sample matrix.
[15]Matrix spike result out of limits due to sample matrix.
[16]Matrix spike result out of limits due to sample matrix.
[17]Matrix spike result out of limits due to sample matrix.
[18]Matrix spike result out of limits due to sample matrix.
[19]Matrix spike result out of limits due to sample matrix.

matrix spikes continued . . .

Param		MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Acenaphthene	[20][21]	87.9	87.1	mg/L	1	80.0	<1.58	110	1	10.76 - 107.89	
4-Nitrophenol		4.60	3.98	mg/L	1	80.0	<3.83	6	14	0 - 70.4	
2,4-Dinitrotoluene		111	111	mg/L	1	80.0	<2.09	139	0	0 - 140	
Pentachlorophenol		79.6	81.3	mg/L	1	80.0	<3.04	100	2	0 - 121	
Pyrene	[22][23]	93.4	97.1	mg/L	1	80.0	<1.81	117	4	13.81 - 106.27	

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

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
2-Fluorophenol		33.8	33.7	mg/L	1	80	42	42	7.07 - 72.13
Phenol-d5		22.9	22.7	mg/L	1	80	29	28	0 - 67.01
Nitrobenzene-d5		77.3	76.8	mg/L	1	80	97	96	32.4 - 110.8
2-Fluorobiphenyl	[24][25]	77.8	78.4	mg/L	1	80	97	98	46.84 - 91.48
2,4,6-Tribromophenol		87.2	86.6	mg/L	1	80	109	108	29.39 - 110.7
Terphenyl-d14	[26][27]	90.0	93.6	mg/L	1	80	112	117	34.1 - 95.34

Standard (CCV-1) QC Batch: 10349

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Phenol		mg/L	60.0	57.5	96	80 - 120	2004-06-08
1,4-Dichlorobenzene (para)		mg/L	60.0	59.0	98	80 - 120	2004-06-08
2-Nitrophenol		mg/L	60.0	72.2	120	80 - 120	2004-06-08
2,4-Dichlorophenol		mg/L	60.0	68.8	115	80 - 120	2004-06-08
Hexachlorobutadiene		mg/L	60.0	63.0	105	80 - 120	2004-06-08
4-Chloro-3-methylphenol		mg/L	60.0	72.2	120	80 - 120	2004-06-08
2,4,6-Trichlorophenol		mg/L	60.0	66.8	111	80 - 120	2004-06-08
Acenaphthene		mg/L	60.0	60.8	101	80 - 120	2004-06-08
Diphenylamine		mg/L	60.0	60.1	100	80 - 120	2004-06-08
Pentachlorophenol		mg/L	60.0	70.2	117	80 - 120	2004-06-08
Fluoranthene		mg/L	60.0	61.2	102	80 - 120	2004-06-08
Di-n-octylphthalate		mg/L	60.0	68.9	115	80 - 120	2004-06-08
Benzo(a)pyrene		mg/L	60.0	62.8	105	80 - 120	2004-06-08

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorophenol		62.9	mg/L	1	60.0	105	80 - 120
Phenol-d5		59.4	mg/L	1	60.0	99	80 - 120
Nitrobenzene-d5		66.6	mg/L	1	60.0	111	80 - 120
2-Fluorobiphenyl		58.8	mg/L	1	60.0	98	80 - 120
2,4,6-Tribromophenol		68.0	mg/L	1	60.0	113	80 - 120
Terphenyl-d14		63.5	mg/L	1	60.0	106	80 - 120

[20]Matrix spike result out of limits due to sample matrix.
[21]Matrix spike result out of limits due to sample matrix.
[22]Matrix spike result out of limits due to sample matrix.
[23]Matrix spike result out of limits due to sample matrix.
[24]Matrix spike result out of limits due to sample matrix.
[25]Matrix spike result out of limits due to sample matrix.
[26]Matrix spike result out of limits due to sample matrix.
[27]Matrix spike result out of limits due to sample matrix.

Analytical and Quality Control Report

Rene Rodriguez
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: May 28, 2004

Work Order: 4051107

Project Name: HELSTE TSA Fuel Spill Investigation
Project Number: 2080.414

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
33568	HLSF-0154-RB-001-0504	water	2004-05-10	16:00	2004-05-11
33660	HLSF-0154-RB-002-0504	water	2004-05-11	16:00	2004-05-12
33853	HLSF-0154-RB-003-0504	water	2004-05-12	13:00	2004-05-13

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, without written approval of TraceAnalysis, Inc.

Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 33568 - HLSF-0154-RB-001-0504

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3510C
QC Batch:	9924	Date Analyzed:	2004-05-23	Analyzed By:	RC
Prep Batch:	8781	Date Prepared:	2004-05-17	Prepared By:	RC

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.00500	mg/L	0.001	5.00
n-Nitrosodimethylamine		<0.00500	mg/L	0.001	5.00
2-Picoline		<0.00500	mg/L	0.001	5.00
Methyl methanesulfonate		<0.00500	mg/L	0.001	5.00
Ethyl methanesulfonate		<0.00500	mg/L	0.001	5.00
Phenol		<0.00500	mg/L	0.001	5.00
Aniline		<0.00500	mg/L	0.001	5.00
bis(2-chloroethyl)ether		<0.00500	mg/L	0.001	5.00
2-Chlorophenol		<0.00500	mg/L	0.001	5.00
1,3-Dichlorobenzene (meta)		<0.00500	mg/L	0.001	5.00
1,4-Dichlorobenzene (para)		<0.00500	mg/L	0.001	5.00
Benzyl alcohol		<0.00500	mg/L	0.001	5.00
1,2-Dichlorobenzene (ortho)		<0.00500	mg/L	0.001	5.00
2-Methylphenol		<0.00500	mg/L	0.001	5.00
bis(2-chloroisopropyl)ether		<0.00500	mg/L	0.001	5.00
4-Methylphenol / 3-Methylphenol		<0.00500	mg/L	0.001	5.00
n-Nitrosodi-n-propylamine		<0.00500	mg/L	0.001	5.00
Hexachloroethane		<0.00500	mg/L	0.001	5.00
Acetophenone		<0.00500	mg/L	0.001	5.00
Nitrobenzene		<0.00500	mg/L	0.001	5.00
n-Nitrosopiperidine		<0.00500	mg/L	0.001	5.00
Isophorone		<0.00500	mg/L	0.001	5.00
2-Nitrophenol		<0.00500	mg/L	0.001	5.00
2,4-Dimethylphenol		<0.00500	mg/L	0.001	5.00
bis(2-chloroethoxy)methane		<0.00500	mg/L	0.001	5.00
2,4-Dichlorophenol		<0.00500	mg/L	0.001	5.00
1,2,4-Trichlorobenzene		<0.00500	mg/L	0.001	5.00
Benzoic acid		<0.0200	mg/L	0.001	20.0
Naphthalene		<0.00500	mg/L	0.001	5.00
a,a-Dimethylphenethylamine		<0.00500	mg/L	0.001	5.00
4-Chloroaniline		<0.00500	mg/L	0.001	5.00
2,6-Dichlorophenol		<0.00500	mg/L	0.001	5.00
Hexachlorobutadiene		<0.00500	mg/L	0.001	5.00
n-Nitroso-di-n-butylamine		<0.00500	mg/L	0.001	5.00
4-Chloro-3-methylphenol		<0.00500	mg/L	0.001	5.00
2-Methylnaphthalene		<0.00500	mg/L	0.001	5.00
1-Methylnaphthalene		<0.00500	mg/L	0.001	5.00
1,2,4,5-Tetrachlorobenzene		<0.00500	mg/L	0.001	5.00
Hexachlorocyclopentadiene		<0.00500	mg/L	0.001	5.00
2,4,6-Trichlorophenol		<0.00500	mg/L	0.001	5.00
2,4,5-Trichlorophenol		<0.00500	mg/L	0.001	5.00
2-Chloronaphthalene		<0.00500	mg/L	0.001	5.00
1-Chloronaphthalene		<0.00500	mg/L	0.001	5.00
2-Nitroaniline		<0.00500	mg/L	0.001	5.00
Dimethylphthalate		<0.00500	mg/L	0.001	5.00

continued . . .

sample 33568 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Acenaphthylene		<0.00500	mg/L	0.001	5.00
2,6-Dinitrotoluene		<0.00500	mg/L	0.001	5.00
3-Nitroaniline		<0.00500	mg/L	0.001	5.00
Acenaphthene		<0.00500	mg/L	0.001	5.00
2,4-Dinitrophenol		<0.0200	mg/L	0.001	20.0
Dibenzofuran		<0.00500	mg/L	0.001	5.00
Pentachlorobenzene		<0.00500	mg/L	0.001	5.00
4-Nitrophenol		<0.00500	mg/L	0.001	5.00
2,4-Dinitrotoluene		<0.00500	mg/L	0.001	5.00
1-Naphthylamine		<0.00500	mg/L	0.001	5.00
2,3,4,6-Tetrachlorophenol		<0.00500	mg/L	0.001	5.00
2-Naphthylamine		<0.00500	mg/L	0.001	5.00
Fluorene		<0.00500	mg/L	0.001	5.00
4-Chlorophenyl-phenylether		<0.00500	mg/L	0.001	5.00
Diethylphthalate		<0.00500	mg/L	0.001	5.00
4-Nitroaniline		<0.00500	mg/L	0.001	5.00
Diphenylhydrazine		<0.00500	mg/L	0.001	5.00
4,6-Dinitro-2-methylphenol		<0.00500	mg/L	0.001	5.00
Diphenylamine		<0.00500	mg/L	0.001	5.00
4-Bromophenyl-phenylether		<0.00500	mg/L	0.001	5.00
Phenacetin		<0.00500	mg/L	0.001	5.00
Hexachlorobenzene		<0.00500	mg/L	0.001	5.00
4-Aminobiphenyl		<0.00500	mg/L	0.001	5.00
Pentachlorophenol		<0.00500	mg/L	0.001	5.00
Anthracene		<0.00500	mg/L	0.001	5.00
Pentachloronitrobenzene		<0.00500	mg/L	0.001	5.00
Pronamide		<0.00500	mg/L	0.001	5.00
Phenanthrene		<0.00500	mg/L	0.001	5.00
Di-n-butylphthalate		<0.00500	mg/L	0.001	5.00
Fluoranthene		<0.00500	mg/L	0.001	5.00
Benzidine		<0.0150	mg/L	0.001	15.0
Pyrene		<0.00500	mg/L	0.001	5.00
p-Dimethylaminoazobenzene		<0.00500	mg/L	0.001	5.00
Butylbenzylphthalate		<0.00500	mg/L	0.001	5.00
Benzo(a)anthracene		<0.00500	mg/L	0.001	5.00
3,3-Dichlorobenzidine		<0.00500	mg/L	0.001	5.00
Chrysene		<0.00500	mg/L	0.001	5.00
bis(2-ethylhexyl)phthalate		<0.0100	mg/L	0.001	10.0
Di-n-octylphthalate		<0.00500	mg/L	0.001	5.00
Benzo(b)fluoranthene		<0.00500	mg/L	0.001	5.00
Benzo(k)fluoranthene		<0.00500	mg/L	0.001	5.00
7,12-Dimethylbenz(a)anthracene		<0.00500	mg/L	0.001	5.00
Benzo(a)pyrene		<0.00500	mg/L	0.001	5.00
3-Methylcholanthrene		<0.00500	mg/L	0.001	5.00
Dibenzo(a,j)acridine		<0.00500	mg/L	0.001	5.00
Indeno(1,2,3-cd)pyrene		<0.00500	mg/L	0.001	5.00
Dibenzo(a,h)anthracene		<0.00500	mg/L	0.001	5.00
Benzo(g,h,i)perylene		<0.00500	mg/L	0.001	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.0250	mg/L	0.001	80.0	31	0 - 69.3
Phenol-d5		0.0170	mg/L	0.001	80.0	21	0 - 52.5
Nitrobenzene-d5		0.0426	mg/L	0.001	80.0	53	21.1 - 93.6
2-Fluorobiphenyl		0.0400	mg/L	0.001	80.0	50	25.4 - 87
2,4,6-Tribromophenol		0.0525	mg/L	0.001	80.0	66	14.9 - 110
Terphenyl-d14		0.0683	mg/L	0.001	80.0	85	28.9 - 124

Sample: 33660 - HLSF-0154-RB-002-0504

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3510C
QC Batch:	9893	Date Analyzed:	2004-05-19	Analyzed By:	RC
Prep Batch:	8529	Date Prepared:	2004-05-14	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.00500	mg/L	0.001	5.00
n-Nitrosodimethylamine		<0.00500	mg/L	0.001	5.00
2-Picoline		<0.00500	mg/L	0.001	5.00
Methyl methanesulfonate		<0.00500	mg/L	0.001	5.00
Ethyl methanesulfonate		<0.00500	mg/L	0.001	5.00
Phenol		<0.00500	mg/L	0.001	5.00
Aniline		<0.00500	mg/L	0.001	5.00
bis(2-chloroethyl)ether		<0.00500	mg/L	0.001	5.00
2-Chlorophenol		<0.00500	mg/L	0.001	5.00
1,3-Dichlorobenzene (meta)		<0.00500	mg/L	0.001	5.00
1,4-Dichlorobenzene (para)		<0.00500	mg/L	0.001	5.00
Benzyl alcohol		<0.00500	mg/L	0.001	5.00
1,2-Dichlorobenzene (ortho)		<0.00500	mg/L	0.001	5.00
2-Methylphenol		<0.00500	mg/L	0.001	5.00
bis(2-chloroisopropyl)ether		<0.00500	mg/L	0.001	5.00
4-Methylphenol / 3-Methylphenol		<0.00500	mg/L	0.001	5.00
n-Nitrosodi-n-propylamine		<0.00500	mg/L	0.001	5.00
Hexachloroethane		<0.00500	mg/L	0.001	5.00
Acetophenone		<0.00500	mg/L	0.001	5.00
Nitrobenzene		<0.00500	mg/L	0.001	5.00
n-Nitrosopiperidine		<0.00500	mg/L	0.001	5.00
Isophorone		<0.00500	mg/L	0.001	5.00
2-Nitrophenol		<0.00500	mg/L	0.001	5.00
2,4-Dimethylphenol		<0.00500	mg/L	0.001	5.00
bis(2-chloroethoxy)methane		<0.00500	mg/L	0.001	5.00
2,4-Dichlorophenol		<0.00500	mg/L	0.001	5.00
1,2,4-Trichlorobenzene		<0.00500	mg/L	0.001	5.00
Benzoic acid		<0.0200	mg/L	0.001	20.0
Naphthalene		<0.00500	mg/L	0.001	5.00
a,a-Dimethylphenethylamine		<0.00500	mg/L	0.001	5.00
4-Chloroaniline		<0.00500	mg/L	0.001	5.00
2,6-Dichlorophenol		<0.00500	mg/L	0.001	5.00
Hexachlorobutadiene		<0.00500	mg/L	0.001	5.00
n-Nitroso-di-n-butylamine		<0.00500	mg/L	0.001	5.00
4-Chloro-3-methylphenol		<0.00500	mg/L	0.001	5.00
2-Methylnaphthalene		<0.00500	mg/L	0.001	5.00

continued . . .

sample 33660 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
1-Methylnaphthalene		<0.00500	mg/L	0.001	5.00
1,2,4,5-Tetrachlorobenzene		<0.00500	mg/L	0.001	5.00
Hexachlorocyclopentadiene		<0.00500	mg/L	0.001	5.00
2,4,6-Trichlorophenol		<0.00500	mg/L	0.001	5.00
2,4,5-Trichlorophenol		<0.00500	mg/L	0.001	5.00
2-Chloronaphthalene		<0.00500	mg/L	0.001	5.00
1-Chloronaphthalene		<0.00500	mg/L	0.001	5.00
2-Nitroaniline		<0.00500	mg/L	0.001	5.00
Dimethylphthalate		<0.00500	mg/L	0.001	5.00
Acenaphthylene		<0.00500	mg/L	0.001	5.00
2,6-Dinitrotoluene		<0.00500	mg/L	0.001	5.00
3-Nitroaniline		<0.00500	mg/L	0.001	5.00
Acenaphthene		<0.00500	mg/L	0.001	5.00
2,4-Dinitrophenol		<0.0200	mg/L	0.001	20.0
Dibenzofuran		<0.00500	mg/L	0.001	5.00
Pentachlorobenzene		<0.00500	mg/L	0.001	5.00
4-Nitrophenol		<0.00500	mg/L	0.001	5.00
2,4-Dinitrotoluene		<0.00500	mg/L	0.001	5.00
1-Naphthylamine		<0.00500	mg/L	0.001	5.00
2,3,4,6-Tetrachlorophenol		<0.00500	mg/L	0.001	5.00
2-Naphthylamine		<0.00500	mg/L	0.001	5.00
Fluorene		<0.00500	mg/L	0.001	5.00
4-Chlorophenyl-phenylether		<0.00500	mg/L	0.001	5.00
Diethylphthalate		<0.00500	mg/L	0.001	5.00
4-Nitroaniline		<0.00500	mg/L	0.001	5.00
Diphenylhydrazine		<0.00500	mg/L	0.001	5.00
4,6-Dinitro-2-methylphenol		<0.00500	mg/L	0.001	5.00
Diphenylamine		<0.00500	mg/L	0.001	5.00
4-Bromophenyl-phenylether		<0.00500	mg/L	0.001	5.00
Phenacetin		<0.00500	mg/L	0.001	5.00
Hexachlorobenzene		<0.00500	mg/L	0.001	5.00
4-Aminobiphenyl		<0.00500	mg/L	0.001	5.00
Pentachlorophenol		<0.00500	mg/L	0.001	5.00
Anthracene		<0.00500	mg/L	0.001	5.00
Pentachloronitrobenzene		<0.00500	mg/L	0.001	5.00
Pronamide		<0.00500	mg/L	0.001	5.00
Phenanthrene		<0.00500	mg/L	0.001	5.00
Di-n-butylphthalate		<0.00500	mg/L	0.001	5.00
Fluoranthene		<0.00500	mg/L	0.001	5.00
Benzidine		<0.0150	mg/L	0.001	15.0
Pyrene		<0.00500	mg/L	0.001	5.00
p-Dimethylaminoazobenzene		<0.00500	mg/L	0.001	5.00
Butylbenzylphthalate		<0.00500	mg/L	0.001	5.00
Benzo(a)anthracene		<0.00500	mg/L	0.001	5.00
3,3-Dichlorobenzidine		<0.00500	mg/L	0.001	5.00
Chrysene		<0.00500	mg/L	0.001	5.00
bis(2-ethylhexyl)phthalate		<0.0100	mg/L	0.001	10.0
Di-n-octylphthalate		<0.00500	mg/L	0.001	5.00
Benzo(b)fluoranthene		<0.00500	mg/L	0.001	5.00
Benzo(k)fluoranthene		<0.00500	mg/L	0.001	5.00
7,12-Dimethylbenz(a)anthracene		<0.00500	mg/L	0.001	5.00

continued . . .

sample 33660 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Benzo(a)pyrene		<0.00500	mg/L	0.001	5.00
3-Methylcholanthrene		<0.00500	mg/L	0.001	5.00
Dibenzo(a,j)acridine		<0.00500	mg/L	0.001	5.00
Indeno(1,2,3-cd)pyrene		<0.00500	mg/L	0.001	5.00
Dibenzo(a,h)anthracene		<0.00500	mg/L	0.001	5.00
Benzo(g,h,i)perylene		<0.00500	mg/L	0.001	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.00	mg/L	0.001	80.0	0	0 - 69.3
Phenol-d5		0.0000900	mg/L	0.001	80.0	0	0 - 52.5
Nitrobenzene-d5	1	0.000190	mg/L	0.001	80.0	0	21.1 - 93.6
2-Fluorobiphenyl	2	0.0125	mg/L	0.001	80.0	16	25.4 - 87
2,4,6-Tribromophenol		0.0363	mg/L	0.001	80.0	45	14.9 - 110
Terphenyl-d14		0.0559	mg/L	0.001	80.0	70	28.9 - 124

Sample: 33853 - HLSF-0154-RB-003-0504

Analysis:	Semivolatiles	Analytical Method:	S 8270C	Prep Method:	S 3510C
QC Batch:	9893	Date Analyzed:	2004-05-19	Analyzed By:	RC
Prep Batch:	8529	Date Prepared:	2004-05-14	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.00500	mg/L	0.001	5.00
n-Nitrosodimethylamine		<0.00500	mg/L	0.001	5.00
2-Picoline		<0.00500	mg/L	0.001	5.00
Methyl methanesulfonate		<0.00500	mg/L	0.001	5.00
Ethyl methanesulfonate		<0.00500	mg/L	0.001	5.00
Phenol		<0.00500	mg/L	0.001	5.00
Aniline		<0.00500	mg/L	0.001	5.00
bis(2-chloroethyl)ether		<0.00500	mg/L	0.001	5.00
2-Chlorophenol		<0.00500	mg/L	0.001	5.00
1,3-Dichlorobenzene (meta)		<0.00500	mg/L	0.001	5.00
1,4-Dichlorobenzene (para)		<0.00500	mg/L	0.001	5.00
Benzyl alcohol		<0.00500	mg/L	0.001	5.00
1,2-Dichlorobenzene (ortho)		<0.00500	mg/L	0.001	5.00
2-Methylphenol		<0.00500	mg/L	0.001	5.00
bis(2-chloroisopropyl)ether		<0.00500	mg/L	0.001	5.00
4-Methylphenol / 3-Methylphenol		<0.00500	mg/L	0.001	5.00
n-Nitrosodi-n-propylamine		<0.00500	mg/L	0.001	5.00
Hexachloroethane		<0.00500	mg/L	0.001	5.00
Acetophenone		<0.00500	mg/L	0.001	5.00
Nitrobenzene		<0.00500	mg/L	0.001	5.00
n-Nitrosopiperidine		<0.00500	mg/L	0.001	5.00
Isophorone		<0.00500	mg/L	0.001	5.00
2-Nitrophenol		<0.00500	mg/L	0.001	5.00

continued . . .

[1]Sample surrogate recovery out of limits due to sample matrix.
[2]Sample surrogate recovery out of limits due to sample matrix.

sample 33853 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
2,4-Dimethylphenol		<0.00500	mg/L	0.001	5.00
bis(2-chloroethoxy)methane		<0.00500	mg/L	0.001	5.00
2,4-Dichlorophenol		<0.00500	mg/L	0.001	5.00
1,2,4-Trichlorobenzene		<0.00500	mg/L	0.001	5.00
Benzoic acid		<0.0200	mg/L	0.001	20.0
Naphthalene		<0.00500	mg/L	0.001	5.00
a,a-Dimethylphenethylamine		<0.00500	mg/L	0.001	5.00
4-Chloroaniline		<0.00500	mg/L	0.001	5.00
2,6-Dichlorophenol		<0.00500	mg/L	0.001	5.00
Hexachlorobutadiene		<0.00500	mg/L	0.001	5.00
n-Nitroso-di-n-butylamine		<0.00500	mg/L	0.001	5.00
4-Chloro-3-methylphenol		<0.00500	mg/L	0.001	5.00
2-Methylnaphthalene		<0.00500	mg/L	0.001	5.00
1-Methylnaphthalene		<0.00500	mg/L	0.001	5.00
1,2,4,5-Tetrachlorobenzene		<0.00500	mg/L	0.001	5.00
Hexachlorocyclopentadiene		<0.00500	mg/L	0.001	5.00
2,4,6-Trichlorophenol		<0.00500	mg/L	0.001	5.00
2,4,5-Trichlorophenol		<0.00500	mg/L	0.001	5.00
2-Chloronaphthalene		<0.00500	mg/L	0.001	5.00
1-Chloronaphthalene		<0.00500	mg/L	0.001	5.00
2-Nitroaniline		<0.00500	mg/L	0.001	5.00
Dimethylphthalate		<0.00500	mg/L	0.001	5.00
Acenaphthylene		<0.00500	mg/L	0.001	5.00
2,6-Dinitrotoluene		<0.00500	mg/L	0.001	5.00
3-Nitroaniline		<0.00500	mg/L	0.001	5.00
Acenaphthene		<0.00500	mg/L	0.001	5.00
2,4-Dinitrophenol		<0.0200	mg/L	0.001	20.0
Dibenzofuran		<0.00500	mg/L	0.001	5.00
Pentachlorobenzene		<0.00500	mg/L	0.001	5.00
4-Nitrophenol		<0.00500	mg/L	0.001	5.00
2,4-Dinitrotoluene		<0.00500	mg/L	0.001	5.00
1-Naphthylamine		<0.00500	mg/L	0.001	5.00
2,3,4,6-Tetrachlorophenol		<0.00500	mg/L	0.001	5.00
2-Naphthylamine		<0.00500	mg/L	0.001	5.00
Fluorene		<0.00500	mg/L	0.001	5.00
4-Chlorophenyl-phenylether		<0.00500	mg/L	0.001	5.00
Diethylphthalate		<0.00500	mg/L	0.001	5.00
4-Nitroaniline		<0.00500	mg/L	0.001	5.00
Diphenylhydrazine		<0.00500	mg/L	0.001	5.00
4,6-Dinitro-2-methylphenol		<0.00500	mg/L	0.001	5.00
Diphenylamine		<0.00500	mg/L	0.001	5.00
4-Bromophenyl-phenylether		<0.00500	mg/L	0.001	5.00
Phenacetin		<0.00500	mg/L	0.001	5.00
Hexachlorobenzene		<0.00500	mg/L	0.001	5.00
4-Aminobiphenyl		<0.00500	mg/L	0.001	5.00
Pentachlorophenol		<0.00500	mg/L	0.001	5.00
Anthracene		<0.00500	mg/L	0.001	5.00
Pentachloronitrobenzene		<0.00500	mg/L	0.001	5.00
Pronamide		<0.00500	mg/L	0.001	5.00
Phenanthrene		<0.00500	mg/L	0.001	5.00
Di-n-butylphthalate		<0.00500	mg/L	0.001	5.00

continued . . .

sample 33853 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Fluoranthene		<0.00500	mg/L	0.001	5.00
Benzidine		<0.0150	mg/L	0.001	15.0
Pyrene		<0.00500	mg/L	0.001	5.00
p-Dimethylaminoazobenzene		<0.00500	mg/L	0.001	5.00
Butylbenzylphthalate		<0.00500	mg/L	0.001	5.00
Benzo(a)anthracene		<0.00500	mg/L	0.001	5.00
3,3-Dichlorobenzidine		<0.00500	mg/L	0.001	5.00
Chrysene		<0.00500	mg/L	0.001	5.00
bis(2-ethylhexyl)phthalate		<0.0100	mg/L	0.001	10.0
Di-n-octylphthalate		<0.00500	mg/L	0.001	5.00
Benzo(b)fluoranthene		<0.00500	mg/L	0.001	5.00
Benzo(k)fluoranthene		<0.00500	mg/L	0.001	5.00
7,12-Dimethylbenz(a)anthracene		<0.00500	mg/L	0.001	5.00
Benzo(a)pyrene		<0.00500	mg/L	0.001	5.00
3-Methylcholanthrene		<0.00500	mg/L	0.001	5.00
Dibenzo(a,j)acridine		<0.00500	mg/L	0.001	5.00
Indeno(1,2,3-cd)pyrene		<0.00500	mg/L	0.001	5.00
Dibenzo(a,h)anthracene		<0.00500	mg/L	0.001	5.00
Benzo(g,h,i)perylene		<0.00500	mg/L	0.001	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.0247	mg/L	0.001	80.0	31	0 - 69.3
Phenol-d5		0.0141	mg/L	0.001	80.0	18	0 - 52.5
Nitrobenzene-d5		0.0514	mg/L	0.001	80.0	64	21.1 - 93.6
2-Fluorobiphenyl		0.0520	mg/L	0.001	80.0	65	25.4 - 87
2,4,6-Tribromophenol		0.0516	mg/L	0.001	80.0	64	14.9 - 110
Terphenyl-d14		0.0614	mg/L	0.001	80.0	77	28.9 - 124

Method Blank (1) QC Batch: 9893

Parameter	Flag	Result	Units	RL
Pyridine		<0.00500	mg/L	5
n-Nitrosodimethylamine		<0.00500	mg/L	5
2-Picoline		<0.00500	mg/L	5
Methyl methanesulfonate		<0.00500	mg/L	5
Ethyl methanesulfonate		<0.00500	mg/L	5
Phenol		<0.00500	mg/L	5
Aniline		<0.00500	mg/L	5
bis(2-chloroethyl)ether		<0.00500	mg/L	5
2-Chlorophenol		<0.00500	mg/L	5
1,3-Dichlorobenzene (meta)		<0.00500	mg/L	5
1,4-Dichlorobenzene (para)		<0.00500	mg/L	5
Benzyl alcohol		<0.00500	mg/L	5
1,2-Dichlorobenzene (ortho)		<0.00500	mg/L	5
2-Methylphenol		<0.00500	mg/L	5
bis(2-chloroisopropyl)ether		<0.00500	mg/L	5
4-Methylphenol / 3-Methylphenol		<0.00500	mg/L	5

continued...

method blank continued . . .

Parameter	Flag	Result	Units	RL
n-Nitrosodi-n-propylamine		<0.00500	mg/L	5
Hexachloroethane		<0.00500	mg/L	5
Acetophenone		<0.00500	mg/L	5
Nitrobenzene		<0.00500	mg/L	5
n-Nitrosopiperidine		<0.00500	mg/L	5
Isophorone		<0.00500	mg/L	5
2-Nitrophenol		<0.00500	mg/L	5
2,4-Dimethylphenol		<0.00500	mg/L	5
bis(2-chloroethoxy)methane		<0.00500	mg/L	5
2,4-Dichlorophenol		<0.00500	mg/L	5
1,2,4-Trichlorobenzene		<0.00500	mg/L	5
Benzoic acid		<0.0200	mg/L	20
Naphthalene		<0.00500	mg/L	5
a,a-Dimethylphenethylamine		<0.00500	mg/L	5
4-Chloroaniline		<0.00500	mg/L	5
2,6-Dichlorophenol		<0.00500	mg/L	5
Hexachlorobutadiene		<0.00500	mg/L	5
n-Nitroso-di-n-butylamine		<0.00500	mg/L	5
4-Chloro-3-methylphenol		<0.00500	mg/L	5
2-Methylnaphthalene		<0.00500	mg/L	5
1-Methylnaphthalene		<0.00500	mg/L	5
1,2,4,5-Tetrachlorobenzene		<0.00500	mg/L	5
Hexachlorocyclopentadiene		<0.00500	mg/L	5
2,4,6-Trichlorophenol		<0.00500	mg/L	5
2,4,5-Trichlorophenol		<0.00500	mg/L	5
2-Chloronaphthalene		<0.00500	mg/L	5
1-Chloronaphthalene		<0.00500	mg/L	5
2-Nitroaniline		<0.00500	mg/L	5
Dimethylphthalate		<0.00500	mg/L	5
Acenaphthylene		<0.00500	mg/L	5
2,6-Dinitrotoluene		<0.00500	mg/L	5
3-Nitroaniline		<0.00500	mg/L	5
Acenaphthene		<0.00500	mg/L	5
2,4-Dinitrophenol		<0.0200	mg/L	20
Dibenzofuran		<0.00500	mg/L	5
Pentachlorobenzene		<0.00500	mg/L	5
4-Nitrophenol		<0.00500	mg/L	5
2,4-Dinitrotoluene		<0.00500	mg/L	5
1-Naphthylamine		<0.00500	mg/L	5
2,3,4,6-Tetrachlorophenol		<0.00500	mg/L	5
2-Naphthylamine		<0.00500	mg/L	5
Fluorene		<0.00500	mg/L	5
4-Chlorophenyl-phenylether		<0.00500	mg/L	5
Diethylphthalate		<0.00500	mg/L	5
4-Nitroaniline		<0.00500	mg/L	5
Diphenylhydrazine		<0.00500	mg/L	5
4,6-Dinitro-2-methylphenol		<0.00500	mg/L	5
Diphenylamine		<0.00500	mg/L	5
4-Bromophenyl-phenylether		<0.00500	mg/L	5
Phenacetin		<0.00500	mg/L	5
Hexachlorobenzene		<0.00500	mg/L	5
4-Aminobiphenyl		<0.00500	mg/L	5

continued . . .

method blank continued . . .

Parameter	Flag	Result	Units	RL
Pentachlorophenol		<0.00500	mg/L	5
Anthracene		<0.00500	mg/L	5
Pentachloronitrobenzene		<0.00500	mg/L	5
Pronamide		<0.00500	mg/L	5
Phenanthrene		<0.00500	mg/L	5
Di-n-butylphthalate		<0.00500	mg/L	5
Fluoranthene		<0.00500	mg/L	5
Benzidine		<0.0150	mg/L	15
Pyrene		<0.00500	mg/L	5
p-Dimethylaminoazobenzene		<0.00500	mg/L	5
Butylbenzylphthalate		<0.00500	mg/L	5
Benzo(a)anthracene		<0.00500	mg/L	5
3,3-Dichlorobenzidine		<0.00500	mg/L	5
Chrysene		<0.00500	mg/L	5
bis(2-ethylhexyl)phthalate		<0.0100	mg/L	10
Di-n-octylphthalate		<0.00500	mg/L	5
Benzo(b)fluoranthene		<0.00500	mg/L	5
Benzo(k)fluoranthene		<0.00500	mg/L	5
7,12-Dimethylbenz(a)anthracene		<0.00500	mg/L	5
Benzo(a)pyrene		<0.00500	mg/L	5
3-Methylcholanthrene		<0.00500	mg/L	5
Dibenzo(a,j)acridine		<0.00500	mg/L	5
Indeno(1,2,3-cd)pyrene		<0.00500	mg/L	5
Dibenzo(a,h)anthracene		<0.00500	mg/L	5
Benzo(g,h,i)perylene		<0.00500	mg/L	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.000180	mg/L	0.001	80.0	0	0 - 69.3
Phenol-d5		0.00246	mg/L	0.001	80.0	3	0 - 52.5
Nitrobenzene-d5		0.0623	mg/L	0.001	80.0	78	21.1 - 93.6
2-Fluorobiphenyl		0.0652	mg/L	0.001	80.0	82	25.4 - 87
2,4,6-Tribromophenol	[3]	0.00600	mg/L	0.001	80.0	8	14.9 - 110
Terphenyl-d14		0.0756	mg/L	0.001	80.0	94	28.9 - 124

Method Blank (1) QC Batch: 9924

Parameter	Flag	Result	Units	RL
Pyridine		<0.00500	mg/L	5
n-Nitrosodimethylamine		<0.00500	mg/L	5
2-Picoline		<0.00500	mg/L	5
Methyl methanesulfonate		<0.00500	mg/L	5
Ethyl methanesulfonate		<0.00500	mg/L	5
Phenol		<0.00500	mg/L	5
Aniline		<0.00500	mg/L	5
bis(2-chloroethyl)ether		<0.00500	mg/L	5
2-Chlorophenol		<0.00500	mg/L	5
1,3-Dichlorobenzene (meta)		<0.00500	mg/L	5

continued . . .

[3]Method blank surrogate recovery out of limits due to prep error during acidic extraction.

method blank continued . . .

Parameter	Flag	Result	Units	RL
1,4-Dichlorobenzene (para)		<0.00500	mg/L	5
Benzyl alcohol		<0.00500	mg/L	5
1,2-Dichlorobenzene (ortho)		<0.00500	mg/L	5
2-Methylphenol		<0.00500	mg/L	5
bis(2-chloroisopropyl)ether		<0.00500	mg/L	5
4-Methylphenol / 3-Methylphenol		<0.00500	mg/L	5
n-Nitrosodi-n-propylamine		<0.00500	mg/L	5
Hexachloroethane		<0.00500	mg/L	5
Acetophenone		<0.00500	mg/L	5
Nitrobenzene		<0.00500	mg/L	5
n-Nitrosopiperidine		<0.00500	mg/L	5
Isophorone		<0.00500	mg/L	5
2-Nitrophenol		<0.00500	mg/L	5
2,4-Dimethylphenol		<0.00500	mg/L	5
bis(2-chloroethoxy)methane		<0.00500	mg/L	5
2,4-Dichlorophenol		<0.00500	mg/L	5
1,2,4-Trichlorobenzene		<0.00500	mg/L	5
Benzoic acid		<0.0200	mg/L	20
Naphthalene		<0.00500	mg/L	5
a,a-Dimethylphenethylamine		<0.00500	mg/L	5
4-Chloroaniline		<0.00500	mg/L	5
2,6-Dichlorophenol		<0.00500	mg/L	5
Hexachlorobutadiene		<0.00500	mg/L	5
n-Nitroso-di-n-butylamine		<0.00500	mg/L	5
4-Chloro-3-methylphenol		<0.00500	mg/L	5
2-Methylnaphthalene		<0.00500	mg/L	5
1-Methylnaphthalene		<0.00500	mg/L	5
1,2,4,5-Tetrachlorobenzene		<0.00500	mg/L	5
Hexachlorocyclopentadiene		<0.00500	mg/L	5
2,4,6-Trichlorophenol		<0.00500	mg/L	5
2,4,5-Trichlorophenol		<0.00500	mg/L	5
2-Chloronaphthalene		<0.00500	mg/L	5
1-Chloronaphthalene		<0.00500	mg/L	5
2-Nitroaniline		<0.00500	mg/L	5
Dimethylphthalate		<0.00500	mg/L	5
Acenaphthylene		<0.00500	mg/L	5
2,6-Dinitrotoluene		<0.00500	mg/L	5
3-Nitroaniline		<0.00500	mg/L	5
Acenaphthene		<0.00500	mg/L	5
2,4-Dinitrophenol		<0.0200	mg/L	20
Dibenzofuran		<0.00500	mg/L	5
Pentachlorobenzene		<0.00500	mg/L	5
4-Nitrophenol		<0.00500	mg/L	5
2,4-Dinitrotoluene		<0.00500	mg/L	5
1-Naphthylamine		<0.00500	mg/L	5
2,3,4,6-Tetrachlorophenol		<0.00500	mg/L	5
2-Naphthylamine		<0.00500	mg/L	5
Fluorene		<0.00500	mg/L	5
4-Chlorophenyl-phenylether		<0.00500	mg/L	5
Diethylphthalate		<0.00500	mg/L	5
4-Nitroaniline		<0.00500	mg/L	5
Diphenylhydrazine		<0.00500	mg/L	5

continued . . .

method blank continued . . .

Parameter	Flag	Result	Units	RL
4,6-Dinitro-2-methylphenol		<0.00500	mg/L	5
Diphenylamine		<0.00500	mg/L	5
4-Bromophenyl-phenylether		<0.00500	mg/L	5
Phenacetin		<0.00500	mg/L	5
Hexachlorobenzene		<0.00500	mg/L	5
4-Aminobiphenyl		<0.00500	mg/L	5
Pentachlorophenol		<0.00500	mg/L	5
Anthracene		<0.00500	mg/L	5
Pentachloronitrobenzene		<0.00500	mg/L	5
Pronamide		<0.00500	mg/L	5
Phenanthrene		<0.00500	mg/L	5
Di-n-butylphthalate		<0.00500	mg/L	5
Fluoranthene		<0.00500	mg/L	5
Benzidine		<0.0150	mg/L	15
Pyrene		<0.00500	mg/L	5
p-Dimethylaminoazobenzene		<0.00500	mg/L	5
Butylbenzylphthalate		<0.00500	mg/L	5
Benzo(a)anthracene		<0.00500	mg/L	5
3,3-Dichlorobenzidine		<0.00500	mg/L	5
Chrysene		<0.00500	mg/L	5
bis(2-ethylhexyl)phthalate		<0.0100	mg/L	10
Di-n-octylphthalate		<0.00500	mg/L	5
Benzo(b)fluoranthene		<0.00500	mg/L	5
Benzo(k)fluoranthene		<0.00500	mg/L	5
7,12-Dimethylbenz(a)anthracene		<0.00500	mg/L	5
Benzo(a)pyrene		<0.00500	mg/L	5
3-Methylcholanthrene		<0.00500	mg/L	5
Dibenzo(a,j)acridine		<0.00500	mg/L	5
Indeno(1,2,3-cd)pyrene		<0.00500	mg/L	5
Dibenzo(a,h)anthracene		<0.00500	mg/L	5
Benzo(g,h,i)perylene		<0.00500	mg/L	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.00816	mg/L	0.001	80.0	10	0 - 69.3
Phenol-d5		0.00852	mg/L	0.001	80.0	11	0 - 52.5
Nitrobenzene-d5		0.0447	mg/L	0.001	80.0	56	21.1 - 93.6
2-Fluorobiphenyl		0.0432	mg/L	0.001	80.0	54	25.4 - 87
2,4,6-Tribromophenol		0.0454	mg/L	0.001	80.0	57	14.9 - 110
Terphenyl-d14		0.0698	mg/L	0.001	80.0	87	28.9 - 124

Laboratory Control Spike (LCS-1) QC Batch: 9893

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Phenol	24.0	24.5	mg/L	1	80.0	<0.490	30	2	0 - 52.1	20
2-Chlorophenol	43.6	43.9	mg/L	1	80.0	<1.63	54	1	9.7 - 98.2	20
1,4-Dichlorobenzene (para)	48.8	49.7	mg/L	1	80.0	<1.93	61	2	18.1 - 111	20
n-Nitrosodi-n-propylamine	52.8	53.8	mg/L	1	80.0	<2.26	66	2	36.6 - 121	20

continued . . .

control spikes continued . . .

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,2,4-Trichlorobenzene	51.0	50.3	mg/L	1	80.0	<1.52	64	1	20.8 - 112	20
4-Chloro-3-methylphenol	56.5	56.1	mg/L	1	80.0	<1.60	71	1	14.3 - 102	20
Acenaphthene	55.6	55.5	mg/L	1	80.0	<1.58	70	0	32.6 - 123	20
4-Nitrophenol	4.42	4.96	mg/L	1	80.0	<3.83	6	12	0 - 51.9	20
2,4-Dinitrotoluene	66.3	69.1	mg/L	1	80.0	<2.09	83	4	32.6 - 138	20
Pentachlorophenol	51.9	54.2	mg/L	1	80.0	<3.04	65	4	0 - 121	20
Pyrene	69.1	70.0	mg/L	1	80.0	<1.81	86	1	38.4 - 146	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
2-Fluorophenol	32.6	31.9	mg/L	1	80.0	41	40	0 - 69.3
Phenol-d5	25.5	25.5	mg/L	1	80.0	32	32	0 - 52.5
Nitrobenzene-d5	51.5	51.2	mg/L	1	80.0	64	64	21.1 - 93.6
2-Fluorobiphenyl	53.1	53.0	mg/L	1	80.0	66	66	25.4 - 87
2,4,6-Tribromophenol	64.9	64.6	mg/L	1	80.0	81	81	14.9 - 110
Terphenyl-d14	74.1	74.4	mg/L	1	80.0	93	93	28.9 - 124

Laboratory Control Spike (LCS-1) QC Batch: 9924

Param		LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Phenol		17.2	17.4	mg/L	1	80.0	<0.490	22	1	0 - 52.1	20
2-Chlorophenol		39.1	38.8	mg/L	1	80.0	<1.63	49	1	9.7 - 98.2	20
1,4-Dichlorobenzene (para)		47.4	47.6	mg/L	1	80.0	<1.93	59	0	18.1 - 111	20
n-Nitrosodi-n-propylamine		67.0	66.3	mg/L	1	80.0	<2.26	84	1	36.6 - 121	20
1,2,4-Trichlorobenzene		50.5	50.8	mg/L	1	80.0	<1.52	63	0	20.8 - 112	20
4-Chloro-3-methylphenol		48.2	48.9	mg/L	1	80.0	<1.60	60	1	14.3 - 102	20
Acenaphthene	45	22.6	23.0	mg/L	1	80.0	<1.58	28	2	32.6 - 123	20
4-Nitrophenol		6.40	6.78	mg/L	1	80.0	<3.83	8	6	0 - 51.9	20
2,4-Dinitrotoluene		84.4	88.8	mg/L	1	80.0	<2.09	106	5	32.6 - 138	20
Pentachlorophenol		60.9	60.2	mg/L	1	80.0	<3.04	76	1	0 - 121	20
Pyrene		36.6	36.6	mg/L	1	80.0	<1.81	46	0	38.4 - 146	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
2-Fluorophenol		29.8	30.1	mg/L	1	80.0	37	38	0 - 69.3
Phenol-d5		19.9	19.7	mg/L	1	80.0	25	25	0 - 52.5
Nitrobenzene-d5		54.0	54.6	mg/L	1	80.0	68	68	21.1 - 93.6
2-Fluorobiphenyl		58.8	58.8	mg/L	1	80.0	74	74	25.4 - 87
2,4,6-Tribromophenol		79.7	83.7	mg/L	1	80.0	100	105	14.9 - 110
Terphenyl-d14	67	139	140	mg/L	1	80.0	174	175	28.9 - 124

Matrix Spike (MS-1) QC Batch: 9893

[4]Spike compounds outside normal range. Other LCS/LCSD compounds show extraction occurred properly.
[5]Spike compounds outside normal range. Other LCS/LCSD compounds show extraction occurred properly.
[6]Spike compounds outside normal range. Other LCS/LCSD compounds show extraction occurred properly.
[7]Spike compounds outside normal range. Other LCS/LCSD compounds show extraction occurred properly.

Param		MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Phenol		13.2	13.3	mg/L	1	80.0	<0.490	16	1	0 - 59.4	
2-Chlorophenol		46.6	46.1	mg/L	1	80.0	<1.63	58	1	33.87 - 76.65	
1,4-Dichlorobenzene (para)		49.0	48.1	mg/L	1	80.0	<1.93	61	2	5.66 - 106.63	
n-Nitrosodi-n-propylamine		60.8	57.3	mg/L	1	80.0	<2.26	76	6	2.12 - 116.53	
1,2,4-Trichlorobenzene		48.6	50.9	mg/L	1	80.0	<1.52	61	5	8.26 - 101.73	
4-Chloro-3-methylphenol	[8][9]	56.8	54.5	mg/L	1	80.0	<1.60	71	4	49.08 - 66.06	
Acenaphthene		55.6	55.6	mg/L	1	80.0	<1.58	70	0	10.76 - 107.89	
4-Nitrophenol	[10][11]	<3.83	<3.83	mg/L	1	80.0	<3.83	0	0	0 - 70.4	
2,4-Dinitrotoluene		53.1	56.8	mg/L	1	80.0	<2.09	66	7	0 - 140	
Pentachlorophenol		57.0	56.7	mg/L	1	80.0	<3.04	71	0	0 - 121	
Pyrene		71.2	69.2	mg/L	1	80.0	<1.81	89	3	13.81 - 106.27	

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
2-Fluorophenol	25.0	24.8	mg/L	1	80	31	31	7.07 - 72.13
Phenol-d5	14.6	14.5	mg/L	1	80	18	18	0 - 67.01
Nitrobenzene-d5	54.2	56.7	mg/L	1	80	68	71	32.4 - 110.8
2-Fluorobiphenyl	55.1	55.1	mg/L	1	80	69	69	46.84 - 91.48
2,4,6-Tribromophenol	64.2	61.9	mg/L	1	80	80	77	29.39 - 110.7
Terphenyl-d14	72.8	71.3	mg/L	1	80	91	89	34.1 - 95.34

Standard (CCV-1) QC Batch: 9893

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Phenol		mg/L	60.0	70.0	117	80 - 120	2004-05-19
1,4-Dichlorobenzene (para)		mg/L	60.0	60.8	101	80 - 120	2004-05-19
2-Nitrophenol		mg/L	60.0	63.9	106	80 - 120	2004-05-19
2,4-Dichlorophenol		mg/L	60.0	64.3	107	80 - 120	2004-05-19
Hexachlorobutadiene		mg/L	60.0	61.0	102	80 - 120	2004-05-19
4-Chloro-3-methylphenol		mg/L	60.0	70.1	117	80 - 120	2004-05-19
2,4,6-Trichlorophenol		mg/L	60.0	63.5	106	80 - 120	2004-05-19
Acenaphthene		mg/L	60.0	59.6	99	80 - 120	2004-05-19
Diphenylamine		mg/L	60.0	61.0	102	80 - 120	2004-05-19
Pentachlorophenol		mg/L	60.0	68.1	114	80 - 120	2004-05-19
Fluoranthene		mg/L	60.0	61.0	102	80 - 120	2004-05-19
Di-n-octylphthalate		mg/L	60.0	63.1	105	80 - 120	2004-05-19
Benzo(a)pyrene		mg/L	60.0	62.0	103	80 - 120	2004-05-19

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorophenol		63.6	mg/L	1	60.0	106	80 - 120
Phenol-d5		64.8	mg/L	1	60.0	108	80 - 120
Nitrobenzene-d5		61.9	mg/L	1	60.0	103	80 - 120
2-Fluorobiphenyl		58.3	mg/L	1	60.0	97	80 - 120
2,4,6-Tribromophenol		64.2	mg/L	1	60.0	107	80 - 120

continued . . .

[8]Spike compounds outside normal range. Other LCS/LCSD compounds show extraction occurred properly.
[9]Spike compounds outside normal range. Other LCS/LCSD compounds show extraction occurred properly.
[10]Spike compounds outside normal range. Other LCS/LCSD compounds show extraction occurred properly.
[11]Spike compounds outside normal range. Other LCS/LCSD compounds show extraction occurred properly.

standard continued . . .

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Terphenyl-d14		61.5	mg/L	1	60.0	102	80 - 120

Standard (CCV-1) QC Batch: 9924

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Phenol		mg/L	60.0	61.6	103	80 - 120	2004-05-23
1,4-Dichlorobenzene (para)		mg/L	60.0	61.4	102	80 - 120	2004-05-23
2-Nitrophenol		mg/L	60.0	66.6	111	80 - 120	2004-05-23
2,4-Dichlorophenol		mg/L	60.0	64.3	107	80 - 120	2004-05-23
Hexachlorobutadiene		mg/L	60.0	60.8	101	80 - 120	2004-05-23
4-Chloro-3-methylphenol		mg/L	60.0	64.2	107	80 - 120	2004-05-23
2,4,6-Trichlorophenol		mg/L	60.0	62.7	104	80 - 120	2004-05-23
Acenaphthene		mg/L	60.0	61.2	102	80 - 120	2004-05-23
Diphenylamine		mg/L	60.0	61.0	102	80 - 120	2004-05-23
Pentachlorophenol		mg/L	60.0	61.0	102	80 - 120	2004-05-23
Fluoranthene		mg/L	60.0	60.6	101	80 - 120	2004-05-23
Di-n-octylphthalate		mg/L	60.0	64.3	107	80 - 120	2004-05-23
Benzo(a)pyrene		mg/L	60.0	62.4	104	80 - 120	2004-05-23

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorophenol		64.0	mg/L	1	60.0	107	80 - 120
Phenol-d5		62.1	mg/L	1	60.0	103	80 - 120
Nitrobenzene-d5		64.3	mg/L	1	60.0	107	80 - 120
2-Fluorobiphenyl		59.7	mg/L	1	60.0	100	80 - 120
2,4,6-Tribromophenol		64.1	mg/L	1	60.0	107	80 - 120
Terphenyl-d14		61.3	mg/L	1	60.0	102	80 - 120

Analytical and Quality Control Report

Rene Rodriguez
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: June 14, 2004

Work Order: 4060406

Project Name: Ground water Sampling at HELSTF TSA
Project Number: 20-A11

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
35761	HLSF-TSA-HMW-048-0604	water	2004-06-03	09:40	2004-06-04
35763	HLSF-TSA-HMW-052-0604	water	2004-06-03	10:21	2004-06-04
35765	HLSF-TSA-HMW-044-0604	water	2004-06-02	14:32	2004-06-04
35767	HLSF-TSA-HMW-050-0604	water	2004-06-02	10:41	2004-06-04
35769	HLSF-TSA-HMW-150-0604	water	2004-06-02	10:41	2004-06-04

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 14 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 35761 - HLSF-TSA-HMW-048-0604

Analysis:	Ag, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.0125	mg/L	1	0.0125

Sample: 35761 - HLSF-TSA-HMW-048-0604

Analysis:	As, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Arsenic		<0.0100	mg/L	1	0.0100

Sample: 35761 - HLSF-TSA-HMW-048-0604

Analysis:	Ba, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Barium		0.0140	mg/L	1	0.0100

Sample: 35761 - HLSF-TSA-HMW-048-0604

Analysis:	Cd, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Cadmium		<0.00500	mg/L	1	0.00500

Sample: 35761 - HLSF-TSA-HMW-048-0604

Analysis:	Cr, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Chromium		<0.0100	mg/L	1	0.0100

Sample: 35761 - HLSF-TSA-HMW-048-0604

Analysis:	Pb, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		<0.0100	mg/L	1	0.0100

Sample: 35761 - HLSF-TSA-HMW-048-0604

Analysis:	Se, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Selenium		<0.0100	mg/L	1	0.0100

Sample: 35763 - HLSF-TSA-HMW-052-0604

Analysis:	Ag, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.0125	mg/L	1	0.0125

Sample: 35763 - HLSF-TSA-HMW-052-0604

Analysis:	As, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Arsenic		<0.0100	mg/L	1	0.0100

Sample: 35763 - HLSF-TSA-HMW-052-0604

Analysis:	Ba, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR

Prep Batch: 9084 Date Prepared: 2004-06-07 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Barium		0.0380	mg/L	1	0.0100

Sample: 35763 - HLSF-TSA-HMW-052-0604

Analysis: Cd, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 10287 Date Analyzed: 2004-06-08 Analyzed By: RR
Prep Batch: 9084 Date Prepared: 2004-06-07 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Cadmium		<0.00500	mg/L	1	0.00500

Sample: 35763 - HLSF-TSA-HMW-052-0604

Analysis: Cr, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 10287 Date Analyzed: 2004-06-08 Analyzed By: RR
Prep Batch: 9084 Date Prepared: 2004-06-07 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Chromium		<0.0100	mg/L	1	0.0100

Sample: 35763 - HLSF-TSA-HMW-052-0604

Analysis: Pb, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 10287 Date Analyzed: 2004-06-08 Analyzed By: RR
Prep Batch: 9084 Date Prepared: 2004-06-07 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		<0.0100	mg/L	1	0.0100

Sample: 35763 - HLSF-TSA-HMW-052-0604

Analysis: Se, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 10287 Date Analyzed: 2004-06-08 Analyzed By: RR
Prep Batch: 9084 Date Prepared: 2004-06-07 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Selenium		<0.0100	mg/L	1	0.0100

Sample: 35765 - HLSF-TSA-HMW-044-0604

Analysis:	Ag, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver	.	<0.0125	mg/L	1	0.0125

Sample: 35765 - HLSF-TSA-HMW-044-0604

Analysis:	As, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Arsenic		<0.0100	mg/L	1	0.0100

Sample: 35765 - HLSF-TSA-HMW-044-0604

Analysis:	Ba, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Barium		0.0150	mg/L	1	0.0100

Sample: 35765 - HLSF-TSA-HMW-044-0604

Analysis:	Cd, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Cadmium		<0.00500	mg/L	1	0.00500

Sample: 35765 - HLSF-TSA-HMW-044-0604

Analysis:	Cr, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Chromium		<0.0100	mg/L	1	0.0100

Sample: 35765 - HLSF-TSA-HMW-044-0604

Analysis:	Pb, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		<0.0100	mg/L	1	0.0100

Sample: 35765 - HLSF-TSA-HMW-044-0604

Analysis:	Se, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Selenium		<0.0100	mg/L	1	0.0100

Sample: 35767 - HLSF-TSA-HMW-050-0604

Analysis:	Ag, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.0125	mg/L	1	0.0125

Sample: 35767 - HLSF-TSA-HMW-050-0604

Analysis:	As, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Arsenic		<0.0100	mg/L	1	0.0100

Sample: 35767 - HLSF-TSA-HMW-050-0604

Analysis:	Ba, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Barium		0.0160	mg/L	1	0.0100

Sample: 35767 - HLSF-TSA-HMW-050-0604

Analysis:	Cd, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Cadmium		<0.00500	mg/L	1	0.00500

Sample: 35767 - HLSF-TSA-HMW-050-0604

Analysis:	Cr, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Chromium		<0.0100	mg/L	1	0.0100

Sample: 35767 - HLSF-TSA-HMW-050-0604

Analysis:	Pb, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		<0.0100	mg/L	1	0.0100

Sample: 35767 - HLSF-TSA-HMW-050-0604

Analysis:	Se, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Selenium		<0.0100	mg/L	1	0.0100

Sample: 35769 - HLSF-TSA-HMW-150-0604

Analysis:	Ag, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.0125	mg/L	1	0.0125

Sample: 35769 - HLSF-TSA-HMW-150-0604

Analysis:	As, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Arsenic		<0.0100	mg/L	1	0.0100

Sample: 35769 - HLSF-TSA-HMW-150-0604

Analysis:	Ba, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Barium		0.0150	mg/L	1	0.0100

Sample: 35769 - HLSF-TSA-HMW-150-0604

Analysis:	Cd, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Cadmium		<0.00500	mg/L	1	0.00500

Sample: 35769 - HLSF-TSA-HMW-150-0604

Analysis:	Cr, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Chromium		<0.0100	mg/L	1	0.0100

Sample: 35769 - HLSF-TSA-HMW-150-0604

Analysis:	Pb, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		<0.0100	mg/L	1	0.0100

Sample: 35769 - HLSF-TSA-HMW-150-0604

Analysis:	Se, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	10287	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9084	Date Prepared:	2004-06-07	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Selenium		<0.0100	mg/L	1	0.0100

Method Blank (1) QC Batch: 10287

Parameter	Flag	Result	Units	RL
Total Silver		<0.0125	mg/L	0.0125

Method Blank (1) QC Batch: 10287

Parameter	Flag	Result	Units	RL
Total Arsenic		<0.0100	mg/L	0.01

Method Blank (1) QC Batch: 10287

Parameter	Flag	Result	Units	RL
Total Barium		<0.0100	mg/L	0.01

Method Blank (1) QC Batch: 10287

Parameter	Flag	Result	Units	RL
Total Cadmium		<0.00500	mg/L	0.005

Method Blank (1) QC Batch: 10287

Parameter	Flag	Result	Units	RL
Total Chromium		<0.0100	mg/L	0.01

Method Blank (1) QC Batch: 10287

Parameter	Flag	Result	Units	RL
Total Lead		<0.0100	mg/L	0.01

Method Blank (1) QC Batch: 10287

Parameter	Flag	Result	Units	RL
Total Selenium		<0.0100	mg/L	0.01

Laboratory Control Spike (LCS-1) QC Batch: 10287

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	0.135	0.135	mg/L	1	0.125	<0.00274	108	0	85 - 115	20

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

Laboratory Control Spike (LCS-1) QC Batch: 10287

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Arsenic	0.515	0.500	mg/L	1	0.500	<0.00489	103	3	85 - 115	20

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

Laboratory Control Spike (LCS-1) QC Batch: 10287

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Barium	0.998	1.00	mg/L	1	1.00	<0.000450	100	0	85 - 114	20

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

Laboratory Control Spike (LCS-1) QC Batch: 10287

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Cadmium	0.245	0.252	mg/L	1	0.250	<0.000268	98	3	86 - 115	20

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

Laboratory Control Spike (LCS-1) QC Batch: 10287

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Chromium	0.0940	0.0950	mg/L	1	0.100	<0.00357	94	1	85 - 115	20

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

Laboratory Control Spike (LCS-1) QC Batch: 10287

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Lead	0.507	0.492	mg/L	1	0.500	<0.00698	101	3	86.1 - 112	20

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

Laboratory Control Spike (LCS-1) QC Batch: 10287

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Selenium	0.490	0.496	mg/L	1	0.500	<0.00556	98	1	75 - 125	20

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

Matrix Spike (MS-2) QC Batch: 10287

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	0.136	0.132	mg/L	1	0.125	<0.00274	109	3	75 - 125	20

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

Matrix Spike (MS-2) QC Batch: 10287

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Arsenic	0.489	0.485	mg/L	1	0.500	<0.00489	98	1	75 - 125	20

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

Matrix Spike (MS-2) QC Batch: 10287

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Barium	1.06	1.02	mg/L	1	1.00	<0.000450	106	4	75 - 125	20

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

Matrix Spike (MS-2) QC Batch: 10287

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Cadmium	0.265	0.259	mg/L	1	0.250	<0.000268	106	2	75 - 125	20

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

Matrix Spike (MS-2) QC Batch: 10287

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Chromium	0.107	0.105	mg/L	1	0.100	<0.00357	107	2	75 - 125	20

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

Matrix Spike (MS-2) QC Batch: 10287

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Lead	0.486	0.490	mg/L	1	0.500	<0.00698	97	1	75 - 125	20

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

Matrix Spike (MS-2) QC Batch: 10287

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Selenium	0.507	0.505	mg/L	1	0.500	<0.00556	101	0	75 - 125	20

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

Standard (CCV-1) QC Batch: 10287

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.125	0.127	102	90 - 110	2004-06-08

Standard (CCV-1) QC Batch: 10287

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Arsenic		mg/L	1.00	1.00	100	90 - 110	2004-06-08

Standard (CCV-1) QC Batch: 10287

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Barium		mg/L	1.00	1.00	100	90 - 110	2004-06-08

Standard (CCV-1) QC Batch: 10287

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cadmium		mg/L	1.00	0.989	99	90 - 110	2004-06-08

Standard (CCV-1) QC Batch: 10287

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Chromium		mg/L	1.00	1.01	101	90 - 110	2004-06-08

Standard (CCV-1) QC Batch: 10287

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Lead		mg/L	1.00	0.993	99	90 - 110	2004-06-08

Standard (CCV-1) QC Batch: 10287

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Selenium		mg/L	1.00	0.992	99	90 - 110	2004-06-08

Standard (CCV-2) QC Batch: 10287

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.125	0.127	102	90 - 110	2004-06-08

Standard (CCV-2) QC Batch: 10287

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Arsenic		mg/L	1.00	1.01	101	90 - 110	2004-06-08

Standard (CCV-2) QC Batch: 10287

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Barium		mg/L	1.00	1.00	100	90 - 110	2004-06-08

Standard (CCV-2) QC Batch: 10287

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cadmium		mg/L	1.00	0.989	99	90 - 110	2004-06-08

Standard (CCV-2) QC Batch: 10287

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Chromium		mg/L	1.00	1.01	101	90 - 110	2004-06-08

Standard (CCV-2) QC Batch: 10287

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Lead		mg/L	1.00	0.965	96	90 - 110	2004-06-08

Standard (CCV-2) QC Batch: 10287

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Selenium		mg/L	1.00	0.980	98	90 - 110	2004-06-08

Analytical and Quality Control Report

Rene Rodriguez
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: May 28, 2004

Work Order: 4051107

Project Name: HELSTE TSA Fuel Spill Investigation
Project Number: 2080.414

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
33568	HLSF-0154-RB-001-0504	water	2004-05-10	16:00	2004-05-11
33660	HLSF-0154-RB-002-0504	water	2004-05-11	16:00	2004-05-12
33853	HLSF-0154-RB-003-0504	water	2004-05-12	13:00	2004-05-13

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, without written approval of TraceAnalysis, Inc.

Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 33568 - HLSF-0154-RB-001-0504

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	9658	Date Analyzed:	2004-05-17	Analyzed By:	RR
Prep Batch:	8468	Date Prepared:	2004-05-11	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.0125	mg/L	1	0.0125
Total Arsenic		<0.0100	mg/L	1	0.0100
Total Barium		0.169	mg/L	1	0.0100
Total Cadmium		<0.00500	mg/L	1	0.00500
Total Chromium		<0.0100	mg/L	1	0.0100
Total Lead		<0.0100	mg/L	1	0.0100
Total Selenium		<0.0100	mg/L	1	0.0100

Sample: 33660 - HLSF-0154-RB-002-0504

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	9651	Date Analyzed:	2004-05-17	Analyzed By:	RR
Prep Batch:	8518	Date Prepared:	2004-05-13	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.0125	mg/L	1	0.0125
Total Arsenic		<0.0100	mg/L	1	0.0100
Total Barium		<0.100	mg/L	1	0.100
Total Cadmium		<0.00500	mg/L	1	0.00500
Total Chromium		<0.0100	mg/L	1	0.0100
Total Lead		<0.0100	mg/L	1	0.0100
Total Selenium		<0.0500	mg/L	1	0.0500

Sample: 33853 - HLSF-0154-RB-003-0504

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	9778	Date Analyzed:	2004-05-20	Analyzed By:	RR
Prep Batch:	8560	Date Prepared:	2004-05-14	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.0125	mg/L	1	0.0125
Total Arsenic		<0.0100	mg/L	1	0.0100
Total Barium		<0.100	mg/L	1	0.100
Total Cadmium		<0.00500	mg/L	1	0.00500
Total Chromium		<0.0100	mg/L	1	0.0100
Total Lead		<0.0100	mg/L	1	0.0100
Total Selenium		<0.0500	mg/L	1	0.0500

Method Blank (1) QC Batch: 9651

Parameter	Flag	Result	Units	RL
Total Silver		<0.0125	mg/L	0.0125
Total Arsenic		<0.0100	mg/L	0.01
Total Barium		<0.100	mg/L	0.1
Total Cadmium		<0.00500	mg/L	0.005
Total Chromium		<0.0100	mg/L	0.01
Total Lead		<0.0100	mg/L	0.01
Total Selenium		<0.0500	mg/L	0.05

Method Blank (1) QC Batch: 9658

Parameter	Flag	Result	Units	RL
Total Silver		<0.0125	mg/L	0.0125
Total Arsenic		<0.0100	mg/L	0.01
Total Barium		<0.0100	mg/L	0.01
Total Cadmium		<0.00500	mg/L	0.005
Total Chromium		<0.0100	mg/L	0.01
Total Lead		<0.0100	mg/L	0.01
Total Selenium		<0.0100	mg/L	0.01

Method Blank (1) QC Batch: 9778

Parameter	Flag	Result	Units	RL
Total Silver		<0.0125	mg/L	0.0125
Total Arsenic		<0.0100	mg/L	0.01
Total Barium		<0.100	mg/L	0.1
Total Cadmium		<0.00500	mg/L	0.005
Total Chromium		<0.0100	mg/L	0.01
Total Lead		<0.0100	mg/L	0.01
Total Selenium		<0.0500	mg/L	0.05

Laboratory Control Spike (LCS-1) QC Batch: 9651

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	0.135	0.136	mg/L	1	0.125	<0.000199	108	1	85 - 115	20
Total Arsenic	0.525	0.528	mg/L	1	0.500	<0.00860	105	0	85 - 115	20
Total Barium	1.07	1.08	mg/L	1	1.00	<0.000984	107	1	85 - 115	20
Total Cadmium	0.266	0.267	mg/L	1	0.250	<0.000577	106	0	85 - 115	20
Total Chromium	0.111	0.112	mg/L	1	0.100	<0.000437	111	1	85 - 115	20
Total Lead	0.542	0.542	mg/L	1	0.500	<0.00310	108	0	85 - 115	20
Total Selenium	0.498	0.497	mg/L	1	0.500	<0.00370	100	0	85 - 115	20

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

Laboratory Control Spike (LCS-1) QC Batch: 9658

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	0.120	0.119	mg/L	1	0.125	<0.00274	96	1	85 - 115	20
Total Arsenic	0.505	0.487	mg/L	1	0.500	<0.00489	101	4	85 - 115	20
Total Barium	0.955	0.954	mg/L	1	1.00	<0.000450	96	0	85 - 114	20
Total Cadmium	0.245	0.246	mg/L	1	0.250	<0.000268	98	0	86 - 115	20
Total Chromium	0.0950	0.0950	mg/L	1	0.100	<0.00357	95	0	85 - 115	20
Total Lead	0.496	0.487	mg/L	1	0.500	<0.00698	99	2	86.1 - 112	20
Total Selenium	0.423	0.407	mg/L	1	0.500	<0.00556	85	4	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 9778

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	0.122	0.124	mg/L	1	0.125	<0.000199	98	2	85 - 115	20
Total Arsenic	0.492	0.495	mg/L	1	0.500	<0.00860	98	1	85 - 115	20
Total Barium	0.995	1.01	mg/L	1	1.00	<0.000984	100	1	85 - 115	20
Total Cadmium	0.244	0.246	mg/L	1	0.250	<0.000577	98	1	85 - 115	20
Total Chromium	0.101	0.102	mg/L	1	0.100	<0.000437	101	1	85 - 115	20
Total Lead	0.503	0.507	mg/L	1	0.500	<0.00310	101	1	85 - 115	20
Total Selenium	0.458	0.462	mg/L	1	0.500	<0.00370	92	1	85 - 115	20

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

Matrix Spike (MS-1) QC Batch: 9651

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	0.137	0.136	mg/L	1	0.125	<0.000199	110	1	75 - 125	20
Total Arsenic	0.507	0.499	mg/L	1	0.500	<0.00860	101	2	75 - 125	20
Total Barium	0.970	0.960	mg/L	1	1.00	<0.000984	97	1	75 - 125	20
Total Cadmium	0.247	0.243	mg/L	1	0.250	<0.000577	99	2	75 - 125	20
Total Chromium	0.105	0.104	mg/L	1	0.100	<0.000437	105	1	75 - 125	20
Total Lead	0.498	0.491	mg/L	1	0.500	<0.00310	100	1	75 - 125	20
Total Selenium	0.524	0.522	mg/L	1	0.500	<0.00370	105	0	75 - 125	20

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

Matrix Spike (MS-1) QC Batch: 9658

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	0.141	0.133	mg/L	1	0.125	<0.00274	113	6	75 - 125	20
Total Arsenic	0.478	0.479	mg/L	1	0.500	<0.00489	96	0	75 - 125	20
Total Barium	1.16	1.17	mg/L	1	1.00	0.016	114	1	75 - 125	20
Total Cadmium	0.258	0.260	mg/L	1	0.250	<0.000268	103	1	75 - 125	20
Total Chromium	0.117	0.115	mg/L	1	0.100	0.01	107	2	75 - 125	20
Total Lead	0.515	0.593	mg/L	1	0.500	<0.00698	103	14	75 - 125	20

continued . . .

matrix spikes continued . . .

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Selenium	0.437	0.439	mg/L	1	0.500	<0.00556	87	0	75 - 125	20

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

Matrix Spike (MS-1) QC Batch: 9778

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	0.126	0.125	mg/L	1	0.125	<0.000199	101	1	75 - 125	20
Total Arsenic	0.504	0.506	mg/L	1	0.500	<0.00860	101	0	75 - 125	20
Total Barium	1.01	0.991	mg/L	1	1.00	<0.000984	101	2	75 - 125	20
Total Cadmium	0.226	0.222	mg/L	1	0.250	<0.000577	90	2	75 - 125	20
Total Chromium	0.0930	0.0920	mg/L	1	0.100	<0.000437	93	1	75 - 125	20
Total Lead	0.500	0.493	mg/L	1	0.500	<0.00310	100	1	75 - 125	20
Total Selenium	0.474	0.472	mg/L	1	0.500	<0.00370	95	0	75 - 125	20

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

Standard (ICV-1) QC Batch: 9651

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.125	0.124	99	90 - 110	2004-05-17
Total Arsenic		mg/L	1.00	1.01	101	90 - 110	2004-05-17
Total Barium		mg/L	1.00	0.979	98	90 - 110	2004-05-17
Total Cadmium		mg/L	1.00	0.993	99	90 - 110	2004-05-17
Total Chromium		mg/L	1.00	0.988	99	90 - 110	2004-05-17
Total Lead		mg/L	1.00	0.993	99	90 - 110	2004-05-17
Total Selenium		mg/L	1.00	1.02	102	90 - 110	2004-05-17

Standard (CCV-1) QC Batch: 9651

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.125	0.123	98	90 - 110	2004-05-17
Total Arsenic		mg/L	1.00	0.999	100	90 - 110	2004-05-17
Total Barium		mg/L	1.00	1.02	102	90 - 110	2004-05-17
Total Cadmium		mg/L	1.00	1.04	104	90 - 110	2004-05-17
Total Chromium		mg/L	1.00	1.05	105	90 - 110	2004-05-17
Total Lead		mg/L	1.00	1.06	106	90 - 110	2004-05-17
Total Selenium		mg/L	1.00	1.02	102	90 - 110	2004-05-17

Standard (ICV-1) QC Batch: 9658

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.125	0.125	100	90 - 110	2004-05-17

continued . . .

standard continued . . .

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Arsenic		mg/L	1.00	0.999	100	90 - 110	2004-05-17
Total Barium		mg/L	1.00	0.980	98	90 - 110	2004-05-17
Total Cadmium		mg/L	1.00	1.03	103	90 - 110	2004-05-17
Total Chromium		mg/L	1.00	1.04	104	90 - 110	2004-05-17
Total Lead		mg/L	1.00	1.00	100	90 - 110	2004-05-17
Total Selenium		mg/L	1.00	1.03	103	90 - 110	2004-05-17

Standard (CCV-1) QC Batch: 9658

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.125	0.120	96	90 - 110	2004-05-17
Total Arsenic		mg/L	1.00	0.945	94	90 - 110	2004-05-17
Total Barium		mg/L	1.00	0.950	95	90 - 110	2004-05-17
Total Cadmium		mg/L	1.00	0.976	98	90 - 110	2004-05-17
Total Chromium		mg/L	1.00	0.993	99	90 - 110	2004-05-17
Total Lead		mg/L	1.00	0.939	94	90 - 110	2004-05-17
Total Selenium		mg/L	1.00	0.970	97	90 - 110	2004-05-17

Standard (ICV-1) QC Batch: 9778

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.125	0.124	99	90 - 110	2004-05-20
Total Arsenic		mg/L	1.00	0.997	100	90 - 110	2004-05-20
Total Barium		mg/L	1.00	0.998	100	90 - 110	2004-05-20
Total Cadmium		mg/L	1.00	1.00	100	90 - 110	2004-05-20
Total Chromium		mg/L	1.00	0.997	100	90 - 110	2004-05-20
Total Lead		mg/L	1.00	1.01	101	90 - 110	2004-05-20
Total Selenium		mg/L	1.00	1.00	100	90 - 110	2004-05-20

Standard (CCV-1) QC Batch: 9778

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.125	0.118	94	90 - 110	2004-05-20
Total Arsenic		mg/L	1.00	1.01	101	90 - 110	2004-05-20
Total Barium		mg/L	1.00	0.990	99	90 - 110	2004-05-20
Total Cadmium		mg/L	1.00	0.964	96	90 - 110	2004-05-20
Total Chromium		mg/L	1.00	0.977	98	90 - 110	2004-05-20
Total Lead		mg/L	1.00	0.928	93	90 - 110	2004-05-20
Total Selenium		mg/L	1.00	0.980	98	90 - 110	2004-05-20

Analytical and Quality Control Report

Rene Rodriguez
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: June 14, 2004

Work Order: 4060406

Project Name: Ground water Sampling at HELSTF TSA
Project Number: 20-A11

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
35761	HLSF-TSA-HMW-048-0604	water	2004-06-03	09:40	2004-06-04
35763	HLSF-TSA-HMW-052-0604	water	2004-06-03	10:21	2004-06-04
35765	HLSF-TSA-HMW-044-0604	water	2004-06-02	14:32	2004-06-04
35767	HLSF-TSA-HMW-050-0604	water	2004-06-02	10:41	2004-06-04
35769	HLSF-TSA-HMW-150-0604	water	2004-06-02	10:41	2004-06-04

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 Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 35761 - HLSF-TSA-HMW-048-0604

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5030B
QC Batch:	10238	Date Analyzed:	2004-06-04	Analyzed By:	MS
Prep Batch:	9052	Date Prepared:	2004-06-04	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<0.100	mg/L	1	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0996	mg/L	1	0.100	100	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0798	mg/L	1	0.100	80	70 - 130

Sample: 35763 - HLSF-TSA-HMW-052-0604

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5030B
QC Batch:	10238	Date Analyzed:	2004-06-04	Analyzed By:	MS
Prep Batch:	9052	Date Prepared:	2004-06-04	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<0.100	mg/L	1	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.100	mg/L	1	0.100	100	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0772	mg/L	1	0.100	77	70 - 130

Sample: 35765 - HLSF-TSA-HMW-044-0604

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5030B
QC Batch:	10238	Date Analyzed:	2004-06-04	Analyzed By:	MS
Prep Batch:	9052	Date Prepared:	2004-06-04	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<0.100	mg/L	1	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0995	mg/L	1	0.100	100	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0756	mg/L	1	0.100	76	70 - 130

Sample: 35767 - HLSF-TSA-HMW-050-0604

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5030B
QC Batch:	10238	Date Analyzed:	2004-06-04	Analyzed By:	MS

Prep Batch: 9052 Date Prepared: 2004-06-04 Prepared By: MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<0.100	mg/L	1	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0983	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0747	mg/L	1	0.100	75	70 - 130

Sample: 35769 - HLSF-TSA-HMW-150-0604

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5030B
QC Batch: 10238 Date Analyzed: 2004-06-04 Analyzed By: MS
Prep Batch: 9052 Date Prepared: 2004-06-04 Prepared By: MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<0.100	mg/L	1	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0978	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0731	mg/L	1	0.100	73	70 - 130

Method Blank (1) QC Batch: 10238

Parameter	Flag	Result	Units	RL
GRO		<0.100	mg/L	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0979	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0758	mg/L	1	0.100	76	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 10238

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	0.912	0.954	mg/L	1	1.00	<0.0261	91	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0955	0.0973	mg/L	1	0.100	96	97	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0919	0.0940	mg/L	1	0.100	92	94	70 - 130

Standard (ICV-1) QC Batch: 10238

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.964	96	85 - 115	2004-06-04

Standard (CCV-1) QC Batch: 10238

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.954	95	85 - 115	2004-06-04

Analytical and Quality Control Report

Rene Rodriguez
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: June 14, 2004

Work Order: 4060406

Project Name: Ground water Sampling at HELSTF TSA
Project Number: 20-A11

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
35761	HLSF-TSA-HMW-048-0604	water	2004-06-03	09:40	2004-06-04
35763	HLSF-TSA-HMW-052-0604	water	2004-06-03	10:21	2004-06-04
35765	HLSF-TSA-HMW-044-0604	water	2004-06-02	14:32	2004-06-04
35767	HLSF-TSA-HMW-050-0604	water	2004-06-02	10:41	2004-06-04
35769	HLSF-TSA-HMW-150-0604	water	2004-06-02	10:41	2004-06-04

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Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 35761 - HLSF-TSA-HMW-048-0604

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	10289	Date Analyzed:	2004-06-08	Analyzed By:	RS
Prep Batch:	9101	Date Prepared:	2004-06-08	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		90.0	mg/L as CaCo3	1	4.00
Total Alkalinity		90.0	mg/L as CaCo3	1	4.00

Sample: 35763 - HLSF-TSA-HMW-052-0604

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	10289	Date Analyzed:	2004-06-08	Analyzed By:	RS
Prep Batch:	9101	Date Prepared:	2004-06-08	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		144	mg/L as CaCo3	1	4.00
Total Alkalinity		144	mg/L as CaCo3	1	4.00

Sample: 35765 - HLSF-TSA-HMW-044-0604

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	10289	Date Analyzed:	2004-06-08	Analyzed By:	RS
Prep Batch:	9101	Date Prepared:	2004-06-08	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		102	mg/L as CaCo3	1	4.00
Total Alkalinity		102	mg/L as CaCo3	1	4.00

Sample: 35767 - HLSF-TSA-HMW-050-0604

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	10289	Date Analyzed:	2004-06-08	Analyzed By:	RS
Prep Batch:	9101	Date Prepared:	2004-06-08	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00

continued . . .

sample 35767 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Bicarbonate Alkalinity		102	mg/L as CaCo3	1	4.00
Total Alkalinity		102	mg/L as CaCo3	1	4.00

Sample: 35769 - HLSF-TSA-HMW-150-0604

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	10289	Date Analyzed:	2004-06-08	Analyzed By:	RS
Prep Batch:	9101	Date Prepared:	2004-06-08	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		104	mg/L as CaCo3	1	4.00
Total Alkalinity		104	mg/L as CaCo3	1	4.00

Method Blank (1) QC Batch: 10289

Parameter	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

Duplicate (1) QC Batch: 10289

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity	736	730	mg/L as CaCo3	1	1	20
Total Alkalinity	736	730	mg/L as CaCo3	1	1	4.8

Standard (ICV-1) QC Batch: 10289

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	248	99	90 - 110	2004-06-08

Standard (CCV-1) QC Batch: 10289

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	244	98	90 - 110	2004-06-08

Analytical and Quality Control Report

Rene Rodriguez
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: June 14, 2004

Work Order: 4060406

Project Name: Ground water Sampling at HELSTF TSA
Project Number: 20-A11

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
35761	HLSF-TSA-HMW-048-0604	water	2004-06-03	09:40	2004-06-04
35763	HLSF-TSA-HMW-052-0604	water	2004-06-03	10:21	2004-06-04
35765	HLSF-TSA-HMW-044-0604	water	2004-06-02	14:32	2004-06-04
35767	HLSF-TSA-HMW-050-0604	water	2004-06-02	10:41	2004-06-04
35769	HLSF-TSA-HMW-150-0604	water	2004-06-02	10:41	2004-06-04

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Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 35761 - HLSF-TSA-HMW-048-0604

Analysis:	Conductivity	Analytical Method:	SM 2510B	Prep Method:	N/A
QC Batch:	10316	Date Analyzed:	2004-06-09	Analyzed By:	JSW
Prep Batch:	9121	Date Prepared:	2004-06-09	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Specific Conductance		8830	μMHOS/cm	1	0.00

Sample: 35763 - HLSF-TSA-HMW-052-0604

Analysis:	Conductivity	Analytical Method:	SM 2510B	Prep Method:	N/A
QC Batch:	10316	Date Analyzed:	2004-06-09	Analyzed By:	JSW
Prep Batch:	9121	Date Prepared:	2004-06-09	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Specific Conductance		10800	μMHOS/cm	1	0.00

Sample: 35765 - HLSF-TSA-HMW-044-0604

Analysis:	Conductivity	Analytical Method:	SM 2510B	Prep Method:	N/A
QC Batch:	10316	Date Analyzed:	2004-06-09	Analyzed By:	JSW
Prep Batch:	9121	Date Prepared:	2004-06-09	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Specific Conductance		9490	μMHOS/cm	1	0.00

Sample: 35767 - HLSF-TSA-HMW-050-0604

Analysis:	Conductivity	Analytical Method:	SM 2510B	Prep Method:	N/A
QC Batch:	10316	Date Analyzed:	2004-06-09	Analyzed By:	JSW
Prep Batch:	9121	Date Prepared:	2004-06-09	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Specific Conductance		9570	μMHOS/cm	1	0.00

Sample: 35769 - HLSF-TSA-HMW-150-0604

Analysis:	Conductivity	Analytical Method:	SM 2510B	Prep Method:	N/A
QC Batch:	10316	Date Analyzed:	2004-06-09	Analyzed By:	JSW
Prep Batch:	9121	Date Prepared:	2004-06-09	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Specific Conductance		9670	μMHOS/cm	1	0.00

Method Blank (1) QC Batch: 10316

Parameter	Flag	Result	Units	RL
Specific Conductance		4.85	μMHOS/cm	

Duplicate (1) QC Batch: 10316

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Specific Conductance	9590	9670	μMHOS/cm	1	1	2.3

Standard (ICV-1) QC Batch: 10316

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		μMHOS/cm	1410	1390	99	90 - 110	2004-06-09

Standard (CCV-1) QC Batch: 10316

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		μMHOS/cm	1410	1410	100	90 - 110	2004-06-09

Analytical and Quality Control Report

Rene Rodriguez
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: June 14, 2004

Work Order: 4060406

Project Name: Ground water Sampling at HELSTF TSA
Project Number: 20-A11

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
35761	HLSF-TSA-HMW-048-0604	water	2004-06-03	09:40	2004-06-04
35763	HLSF-TSA-HMW-052-0604	water	2004-06-03	10:21	2004-06-04
35765	HLSF-TSA-HMW-044-0604	water	2004-06-02	14:32	2004-06-04
35767	HLSF-TSA-HMW-050-0604	water	2004-06-02	10:41	2004-06-04
35769	HLSF-TSA-HMW-150-0604	water	2004-06-02	10:41	2004-06-04

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 14 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 35761 - HLSF-TSA-HMW-048-0604

Analysis:	Ag, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Silver		<0.0130	mg/L	1	0.0130

Sample: 35761 - HLSF-TSA-HMW-048-0604

Analysis:	As, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Arsenic		<0.0100	mg/L	1	0.0100

Sample: 35761 - HLSF-TSA-HMW-048-0604

Analysis:	Ba, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Barium		0.0130	mg/L	1	0.0100

Sample: 35761 - HLSF-TSA-HMW-048-0604

Analysis:	Cd, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Cadmium		<0.00500	mg/L	1	0.00500

Sample: 35761 - HLSF-TSA-HMW-048-0604

Analysis:	Cr, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Chromium		<0.0100	mg/L	1	0.0100

Sample: 35761 - HLSF-TSA-HMW-048-0604

Analysis:	Pb, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Lead		<0.0100	mg/L	1	0.0100

Sample: 35761 - HLSF-TSA-HMW-048-0604

Analysis:	Se, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Selenium		<0.0100	mg/L	1	0.0100

Sample: 35763 - HLSF-TSA-HMW-052-0604

Analysis:	Ag, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Silver		<0.0130	mg/L	1	0.0130

Sample: 35763 - HLSF-TSA-HMW-052-0604

Analysis:	As, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Arsenic		<0.0100	mg/L	1	0.0100

Sample: 35763 - HLSF-TSA-HMW-052-0604

Analysis:	Ba, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR

Prep Batch: 9099 Date Prepared: 2004-06-08 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Barium		0.0360	mg/L	1	0.0100

Sample: 35763 - HLSF-TSA-HMW-052-0604

Analysis: Cd, Dissolved Analytical Method: S 6010B Prep Method: S 3005A
QC Batch: 10290 Date Analyzed: 2004-06-08 Analyzed By: RR
Prep Batch: 9099 Date Prepared: 2004-06-08 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Cadmium		<0.00500	mg/L	1	0.00500

Sample: 35763 - HLSF-TSA-HMW-052-0604

Analysis: Cr, Dissolved Analytical Method: S 6010B Prep Method: S 3005A
QC Batch: 10290 Date Analyzed: 2004-06-08 Analyzed By: RR
Prep Batch: 9099 Date Prepared: 2004-06-08 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Chromium		<0.0100	mg/L	1	0.0100

Sample: 35763 - HLSF-TSA-HMW-052-0604

Analysis: Pb, Dissolved Analytical Method: S 6010B Prep Method: S 3005A
QC Batch: 10290 Date Analyzed: 2004-06-08 Analyzed By: RR
Prep Batch: 9099 Date Prepared: 2004-06-08 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Lead		<0.0100	mg/L	1	0.0100

Sample: 35763 - HLSF-TSA-HMW-052-0604

Analysis: Se, Dissolved Analytical Method: S 6010B Prep Method: S 3005A
QC Batch: 10290 Date Analyzed: 2004-06-08 Analyzed By: RR
Prep Batch: 9099 Date Prepared: 2004-06-08 Prepared By: TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Selenium		<0.0100	mg/L	1	0.0100

Sample: 35765 - HLSF-TSA-HMW-044-0604

Analysis:	Ag, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Silver		<0.0130	mg/L	1	0.0130

Sample: 35765 - HLSF-TSA-HMW-044-0604

Analysis:	As, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Arsenic		<0.0100	mg/L	1	0.0100

Sample: 35765 - HLSF-TSA-HMW-044-0604

Analysis:	Ba, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Barium		0.0130	mg/L	1	0.0100

Sample: 35765 - HLSF-TSA-HMW-044-0604

Analysis:	Cd, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Cadmium		<0.00500	mg/L	1	0.00500

Sample: 35765 - HLSF-TSA-HMW-044-0604

Analysis:	Cr, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Chromium		<0.0100	mg/L	1	0.0100

Sample: 35765 - HLSF-TSA-HMW-044-0604

Analysis:	Pb, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Lead		<0.0100	mg/L	1	0.0100

Sample: 35765 - HLSF-TSA-HMW-044-0604

Analysis:	Se, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Selenium		<0.0100	mg/L	1	0.0100

Sample: 35767 - HLSF-TSA-HMW-050-0604

Analysis:	Ag, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Silver		<0.0130	mg/L	1	0.0130

Sample: 35767 - HLSF-TSA-HMW-050-0604

Analysis:	As, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Arsenic		<0.0100	mg/L	1	0.0100

Sample: 35767 - HLSF-TSA-HMW-050-0604

Analysis:	Ba, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Barium		0.0160	mg/L	1	0.0100

Sample: 35767 - HLSF-TSA-HMW-050-0604

Analysis:	Cd, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Cadmium		<0.00500	mg/L	1	0.00500

Sample: 35767 - HLSF-TSA-HMW-050-0604

Analysis:	Cr, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Chromium		<0.0100	mg/L	1	0.0100

Sample: 35767 - HLSF-TSA-HMW-050-0604

Analysis:	Pb, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Lead		<0.0100	mg/L	1	0.0100

Sample: 35767 - HLSF-TSA-HMW-050-0604

Analysis:	Se, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Selenium		<0.0100	mg/L	1	0.0100

Sample: 35769 - HLSF-TSA-HMW-150-0604

Analysis:	Ag, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Silver		<0.0130	mg/L	1	0.0130

Sample: 35769 - HLSF-TSA-HMW-150-0604

Analysis:	As, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Arsenic		<0.0100	mg/L	1	0.0100

Sample: 35769 - HLSF-TSA-HMW-150-0604

Analysis:	Ba, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Barium		0.0150	mg/L	1	0.0100

Sample: 35769 - HLSF-TSA-HMW-150-0604

Analysis:	Cd, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Cadmium		<0.00500	mg/L	1	0.00500

Sample: 35769 - HLSF-TSA-HMW-150-0604

Analysis:	Cr, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Chromium		<0.0100	mg/L	1	0.0100

Sample: 35769 - HLSF-TSA-HMW-150-0604

Analysis:	Pb, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Lead		<0.0100	mg/L	1	0.0100

Sample: 35769 - HLSF-TSA-HMW-150-0604

Analysis:	Se, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	10290	Date Analyzed:	2004-06-08	Analyzed By:	RR
Prep Batch:	9099	Date Prepared:	2004-06-08	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Selenium		<0.0100	mg/L	1	0.0100

Method Blank (1) QC Batch: 10290

Parameter	Flag	Result	Units	RL
Dissolved Silver		<0.0130	mg/L	0.013

Method Blank (1) QC Batch: 10290

Parameter	Flag	Result	Units	RL
Dissolved Arsenic		<0.0100	mg/L	0.01

Method Blank (1) QC Batch: 10290

Parameter	Flag	Result	Units	RL
Dissolved Barium		<0.0100	mg/L	0.01

Method Blank (1) QC Batch: 10290

Parameter	Flag	Result	Units	RL
Dissolved Cadmium		<0.00500	mg/L	0.005

Method Blank (1) QC Batch: 10290

Parameter	Flag	Result	Units	RL
Dissolved Chromium		<0.0100	mg/L	0.01

Method Blank (1) QC Batch: 10290

Parameter	Flag	Result	Units	RL
Dissolved Lead		<0.0100	mg/L	0.01

Method Blank (1) QC Batch: 10290

Parameter	Flag	Result	Units	RL
Dissolved Selenium		<0.0100	mg/L	0.01

Laboratory Control Spike (LCS-1) QC Batch: 10290

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Silver	0.136	0.133	mg/L	1	0.125	<0.00274	109	2	85 - 115	20

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

Laboratory Control Spike (LCS-1) QC Batch: 10290

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Arsenic	0.483	0.485	mg/L	1	0.500	<0.00489	97	0	85 - 115	20

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

Laboratory Control Spike (LCS-1) QC Batch: 10290

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Barium	1.00	1.00	mg/L	1	1.00	<0.000450	100	0	85 - 114	20

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

Laboratory Control Spike (LCS-1) QC Batch: 10290

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Cadmium	0.259	0.257	mg/L	1	0.250	<0.00181	104	1	86 - 115	20

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

Laboratory Control Spike (LCS-1) QC Batch: 10290

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Chromium	0.0920	0.0940	mg/L	1	0.100	<0.00357	92	2	85 - 115	20

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

Laboratory Control Spike (LCS-1) QC Batch: 10290

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Lead	0.531	0.534	mg/L	1	0.500	<0.00698	106	0	86.1 - 112	20

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

Laboratory Control Spike (LCS-1) QC Batch: 10290

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Selenium	0.488	0.488	mg/L	1	0.500	<0.00556	98	0	75 - 125	20

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

Matrix Spike (MS-2) QC Batch: 10290

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Silver	0.134	0.131	mg/L	1	0.125	<0.00274	107	2	75 - 125	20

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

Matrix Spike (MS-2) QC Batch: 10290

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Arsenic	0.511	0.517	mg/L	1	0.500	<0.00489	102	1	75 - 125	20

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

Matrix Spike (MS-2) QC Batch: 10290

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Barium	1.04	1.06	mg/L	1	1.00	0.013	103	2	75 - 125	20

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

Matrix Spike (MS-2) QC Batch: 10290

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Cadmium	0.254	0.249	mg/L	1	0.250	<0.00181	102	2	75 - 125	20

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

Matrix Spike (MS-2) QC Batch: 10290

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Chromium	0.105	0.108	mg/L	1	0.100	<0.00357	105	3	75 - 125	20

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

Matrix Spike (MS-2) QC Batch: 10290

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Lead	0.482	0.484	mg/L	1	0.500	<0.00698	96	0	75 - 125	20

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

Matrix Spike (MS-2) QC Batch: 10290

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Selenium	0.501	0.528	mg/L	1	0.500	<0.00556	100	5	75 - 125	20

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

Standard (CCV-1) QC Batch: 10290

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Silver		mg/L	0.125	0.128	102	90 - 110	2004-06-08

Standard (CCV-1) QC Batch: 10290

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Arsenic		mg/L	1.00	0.994	99	90 - 110	2004-06-08

Standard (CCV-1) QC Batch: 10290

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Barium		mg/L	1.00	1.00	100	90 - 110	2004-06-08

Standard (CCV-1) QC Batch: 10290

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Cadmium		mg/L	1.00	0.988	99	90 - 110	2004-06-08

Standard (CCV-1) QC Batch: 10290

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Chromium		mg/L	1.00	1.01	101	90 - 110	2004-06-08

Standard (CCV-1) QC Batch: 10290

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Lead		mg/L	1.00	1.02	102	90 - 110	2004-06-08

Standard (CCV-1) QC Batch: 10290

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Selenium		mg/L	1.00	0.992	99	90 - 110	2004-06-08

Standard (CCV-2) QC Batch: 10290

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Silver		mg/L	0.125	0.128	102	90 - 110	2004-06-08

Standard (CCV-2) QC Batch: 10290

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Arsenic		mg/L	1.00	0.994	99	90 - 110	2004-06-08

Standard (CCV-2) QC Batch: 10290

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Barium		mg/L	1.00	1.00	100	90 - 110	2004-06-08

Standard (CCV-2) QC Batch: 10290

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Cadmium		mg/L	1.00	0.990	99	90 - 110	2004-06-08

Standard (CCV-2) QC Batch: 10290

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Chromium		mg/L	1.00	1.02	102	90 - 110	2004-06-08

Standard (CCV-2) QC Batch: 10290

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Lead		mg/L	1.00	0.971	97	90 - 110	2004-06-08

Standard (CCV-2) QC Batch: 10290

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Selenium		mg/L	1.00	1.00	100	90 - 110	2004-06-08

Analytical and Quality Control Report

Rene Rodriguez
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: May 28, 2004

Work Order: 4051107

Project Name: HELSTE TSA Fuel Spill Investigation
Project Number: 2080.414

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
33568	HLSF-0154-RB-001-0504	water	2004-05-10	16:00	2004-05-11
33660	HLSF-0154-RB-002-0504	water	2004-05-11	16:00	2004-05-12
33853	HLSF-0154-RB-003-0504	water	2004-05-12	13:00	2004-05-13

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 4 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 33568 - HLSF-0154-RB-001-0504

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5030B
QC Batch:	9634	Date Analyzed:	2004-05-13	Analyzed By:	MS
Prep Batch:	8548	Date Prepared:	2004-05-13	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<0.100	mg/L	1	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0985	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0929	mg/L	1	0.100	93	70 - 130

Sample: 33660 - HLSF-0154-RB-002-0504

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5030B
QC Batch:	9634	Date Analyzed:	2004-05-13	Analyzed By:	MS
Prep Batch:	8548	Date Prepared:	2004-05-13	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<0.100	mg/L	1	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0968	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0907	mg/L	1	0.100	91	70 - 130

Sample: 33853 - HLSF-0154-RB-003-0504

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5030B
QC Batch:	9673	Date Analyzed:	2004-05-14	Analyzed By:	MS
Prep Batch:	8571	Date Prepared:	2004-05-14	Prepared By:	MS

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<0.100	mg/L	1	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0938	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0883	mg/L	1	0.100	88	70 - 130

Method Blank (1) QC Batch: 9634

Parameter	Flag	Result	Units	RL
GRO		0.161	mg/L	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0888	mg/L	1	0.100	89	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0839	mg/L	1	0.100	84	70 - 130

Method Blank (1) QC Batch: 9673

Parameter	Flag	Result	Units	RL
GRO		0.176	mg/L	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0961	mg/L	1	0.100	96	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0927	mg/L	1	0.100	93	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 9634

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	1.06	1.01	mg/L	1	1.00	<0.0261	106	5	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0976	0.0942	mg/L	1	0.100	98	94	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0985	0.0975	mg/L	1	0.100	98	98	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 9673

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	1.06	1.10	mg/L	1	1.00	<0.0261	106	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	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.100	0.0998	mg/L	1	0.100	100	100	70 - 130
4-Bromofluorobenzene (4-BFB)	0.102	0.101	mg/L	1	0.100	102	101	70 - 130

Standard (ICV-1) QC Batch: 9634

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.07	107	85 - 115	2004-05-13

Standard (CCV-1) QC Batch: 9634

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.982	98	85 - 115	2004-05-13

Standard (ICV-1) QC Batch: 9673

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.04	104	85 - 115	2004-05-14

Standard (CCV-1) QC Batch: 9673

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.09	109	85 - 115	2004-05-14

Analytical and Quality Control Report

Rene Rodriguez
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: May 28, 2004

Work Order: 4051107

Project Name: HELSTE TSA Fuel Spill Investigation
Project Number: 2080.414

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
33568	HLSF-0154-RB-001-0504	water	2004-05-10	16:00	2004-05-11
33660	HLSF-0154-RB-002-0504	water	2004-05-11	16:00	2004-05-12
33853	HLSF-0154-RB-003-0504	water	2004-05-12	13:00	2004-05-13

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 Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 33568 - HLSF-0154-RB-001-0504

Analysis:	Total 8 Metals	Analytical Method:	S 7470A	Prep Method:	N/A
QC Batch:	9770	Date Analyzed:	2004-05-18	Analyzed By:	BC
Prep Batch:	8666	Date Prepared:	2004-05-17	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.000200	mg/L	1	0.000200

Sample: 33660 - HLSF-0154-RB-002-0504

Analysis:	Total 8 Metals	Analytical Method:	S 7470A	Prep Method:	N/A
QC Batch:	9770	Date Analyzed:	2004-05-18	Analyzed By:	BC
Prep Batch:	8666	Date Prepared:	2004-05-17	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.000200	mg/L	1	0.000200

Sample: 33853 - HLSF-0154-RB-003-0504

Analysis:	Total 8 Metals	Analytical Method:	S 7470A	Prep Method:	N/A
QC Batch:	9770	Date Analyzed:	2004-05-18	Analyzed By:	BC
Prep Batch:	8666	Date Prepared:	2004-05-17	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.000200	mg/L	1	0.000200

Method Blank (1) QC Batch: 9770

Parameter	Flag	Result	Units	RL
Total Mercury		<0.000200	mg/L	0.0002

Laboratory Control Spike (LCS-1) QC Batch: 9770

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	0.00106	0.00106	mg/L	1	0.00100	<0.0000329	106	0	82 - 120	20

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

Matrix Spike (MS-2) QC Batch: 9770

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	0.00107	0.00109	mg/L	1	0.00100	<0.0000329	107	2	80 - 120	20

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

Standard (CCV-1) QC Batch: 9770

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.00103	103	80 - 120	2004-05-18

Standard (CCV-2) QC Batch: 9770

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.00103	103	80 - 120	2004-05-18

Analytical and Quality Control Report

Rene Rodriguez
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: June 14, 2004

Work Order: 4060406

Project Name: Ground water Sampling at HELSTF TSA
Project Number: 20-A11

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
35761	HLSF-TSA-HMW-048-0604	water	2004-06-03	09:40	2004-06-04
35763	HLSF-TSA-HMW-052-0604	water	2004-06-03	10:21	2004-06-04
35765	HLSF-TSA-HMW-044-0604	water	2004-06-02	14:32	2004-06-04
35767	HLSF-TSA-HMW-050-0604	water	2004-06-02	10:41	2004-06-04
35769	HLSF-TSA-HMW-150-0604	water	2004-06-02	10:41	2004-06-04

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Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 35761 - HLSF-TSA-HMW-048-0604

Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	10236	Date Analyzed:	2004-06-07	Analyzed By:	JSW
Prep Batch:	9055	Date Prepared:	2004-06-04	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		4500	mg/L	100	0.500

Sample: 35763 - HLSF-TSA-HMW-052-0604

Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	10236	Date Analyzed:	2004-06-07	Analyzed By:	JSW
Prep Batch:	9055	Date Prepared:	2004-06-04	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		5370	mg/L	100	0.500

Sample: 35765 - HLSF-TSA-HMW-044-0604

Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	10236	Date Analyzed:	2004-06-07	Analyzed By:	JSW
Prep Batch:	9055	Date Prepared:	2004-06-04	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		4740	mg/L	100	0.500

Sample: 35767 - HLSF-TSA-HMW-050-0604

Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	10236	Date Analyzed:	2004-06-07	Analyzed By:	JSW
Prep Batch:	9055	Date Prepared:	2004-06-04	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		4770	mg/L	100	0.500

Sample: 35769 - HLSF-TSA-HMW-150-0604

Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	10236	Date Analyzed:	2004-06-07	Analyzed By:	JSW
Prep Batch:	9055	Date Prepared:	2004-06-04	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		4770	mg/L	100	0.500

Method Blank (1) QC Batch: 10236

Parameter	Flag	Result	Units	RL
Sulfate		<0.500	mg/L	0.5

Laboratory Control Spike (LCS-1) QC Batch: 10236

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Sulfate	12.5	12.5	mg/L	1	12.5	<0.409	100	0	90 - 110	20

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

Matrix Spike (MS-1) QC Batch: 10236

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Sulfate	1860	1890	mg/L	100	12.5	745	89	2	77.8 - 112	20

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

Standard (ICV-1) QC Batch: 10236

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	12.5	13.0	104	90 - 110	2004-06-07

Standard (CCV-1) QC Batch: 10236

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	12.5	12.5	100	90 - 110	2004-06-07

Analytical and Quality Control Report

Rene Rodriguez
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: June 17, 2004

Work Order: 4060406

Project Name: Ground water Sampling at HELSTF TSA
Project Number: 20-A11

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
35761	HLSF-TSA-HMW-048-0604	water	2004-06-03	09:40	2004-06-04
35763	HLSF-TSA-HMW-052-0604	water	2004-06-03	10:21	2004-06-04
35765	HLSF-TSA-HMW-044-0604	water	2004-06-02	14:32	2004-06-04
35767	HLSF-TSA-HMW-050-0604	water	2004-06-02	10:41	2004-06-04
35769	HLSF-TSA-HMW-150-0604	water	2004-06-02	10:41	2004-06-04

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 Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 35761 - HLSF-TSA-HMW-048-0604

Analysis:	Hg, Total	Analytical Method:	S 7470A	Prep Method:	N/A
QC Batch:	10318	Date Analyzed:	2004-06-09	Analyzed By:	BC
Prep Batch:	9123	Date Prepared:	2004-06-08	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.000200	mg/L	1	0.000200

Sample: 35763 - HLSF-TSA-HMW-052-0604

Analysis:	Hg, Total	Analytical Method:	S 7470A	Prep Method:	N/A
QC Batch:	10318	Date Analyzed:	2004-06-09	Analyzed By:	BC
Prep Batch:	9123	Date Prepared:	2004-06-08	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.000200	mg/L	1	0.000200

Sample: 35765 - HLSF-TSA-HMW-044-0604

Analysis:	Hg, Total	Analytical Method:	S 7470A	Prep Method:	N/A
QC Batch:	10318	Date Analyzed:	2004-06-09	Analyzed By:	BC
Prep Batch:	9123	Date Prepared:	2004-06-08	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.000200	mg/L	1	0.000200

Sample: 35767 - HLSF-TSA-HMW-050-0604

Analysis:	Hg, Total	Analytical Method:	S 7470A	Prep Method:	N/A
QC Batch:	10318	Date Analyzed:	2004-06-09	Analyzed By:	BC
Prep Batch:	9123	Date Prepared:	2004-06-08	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.000200	mg/L	1	0.000200

Sample: 35769 - HLSF-TSA-HMW-150-0604

Analysis:	Hg, Total	Analytical Method:	S 7470A	Prep Method:	N/A
QC Batch:	10318	Date Analyzed:	2004-06-09	Analyzed By:	BC
Prep Batch:	9123	Date Prepared:	2004-06-08	Prepared By:	BC

Parameter	Flag	RL Result	Units	Dilution	RL
Total Mercury		<0.000200	mg/L	1	0.000200

Method Blank (1) QC Batch: 10318

Parameter	Flag	Result	Units	RL
Total Mercury		<0.000200	mg/L	0.0002

Laboratory Control Spike (LCS-1) QC Batch: 10318

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	0.000990	0.00100	mg/L	1	0.00100	<0.0000329	99	1	82 - 120	20
Total Mercury	0.000990	0.00100	mg/L	1	0.00100	<0.0000329	99	1	82 - 120	20

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

Matrix Spike (MS-2) QC Batch: 10318

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	0.000990	0.00101	mg/L	1	0.00100	<0.0000329	99	2	80 - 120	20
Total Mercury	0.000990	0.00101	mg/L	1	0.00100	<0.0000329	99	2	80 - 120	20

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

Standard (CCV-1) QC Batch: 10318

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.000950	95	80 - 120	2004-06-09

Standard (CCV-2) QC Batch: 10318

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.000950	95	80 - 120	2004-06-09

Analytical and Quality Control Report

Rene Rodriguez
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: June 17, 2004

Work Order: 4060406

Project Name: Ground water Sampling at HELSTF TSA
Project Number: 20-A11

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
35761	HLSF-TSA-HMW-048-0604	water	2004-06-03	09:40	2004-06-04
35763	HLSF-TSA-HMW-052-0604	water	2004-06-03	10:21	2004-06-04
35765	HLSF-TSA-HMW-044-0604	water	2004-06-02	14:32	2004-06-04
35767	HLSF-TSA-HMW-050-0604	water	2004-06-02	10:41	2004-06-04
35769	HLSF-TSA-HMW-150-0604	water	2004-06-02	10:41	2004-06-04

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 3 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 35761 - HLSF-TSA-HMW-048-0604

Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	10262	Date Analyzed:	2004-06-04	Analyzed By:	RS
Prep Batch:	9074	Date Prepared:	2004-06-04	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
pH	[1]	7.66	s.u.	1	0.00

Sample: 35763 - HLSF-TSA-HMW-052-0604

Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	10262	Date Analyzed:	2004-06-04	Analyzed By:	RS
Prep Batch:	9074	Date Prepared:	2004-06-04	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
pH	[2]	7.68	s.u.	1	0.00

Sample: 35765 - HLSF-TSA-HMW-044-0604

Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	10262	Date Analyzed:	2004-06-04	Analyzed By:	RS
Prep Batch:	9074	Date Prepared:	2004-06-04	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
pH	[3]	7.63	s.u.	1	0.00

Sample: 35767 - HLSF-TSA-HMW-050-0604

Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	10262	Date Analyzed:	2004-06-04	Analyzed By:	RS
Prep Batch:	9074	Date Prepared:	2004-06-04	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
pH	[4]	7.62	s.u.	1	0.00

Sample: 35769 - HLSF-TSA-HMW-150-0604

Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	10262	Date Analyzed:	2004-06-04	Analyzed By:	RS

[1]Test performed at TraceAnalysis.
[2]Test performed at TraceAnalysis.
[3]Test performed at TraceAnalysis.
[4]Test performed at TraceAnalysis.

Prep Batch: 9074 Date Prepared: 2004-06-04 Prepared By: RS

Parameter	Flag	RL Result	Units	Dilution	RL
pH	[5]	7.62	s.u.	1	0.00

Duplicate (1) QC Batch: 10262

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH	[6]	9.16	9.16	s.u.	1	0	0.4

Standard (ICV-1) QC Batch: 10262

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	7.01	100	98 - 102	2004-06-04

Standard (CCV-1) QC Batch: 10262

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	7.00	100	98 - 102	2004-06-04

[5]Test performed at TraceAnalysis.
[6]received out of holding time

Analytical and Quality Control Report

Rene Rodriguez
BAE Systems
P.O. Box 399
Building 126
WSMR, NM 88002

Report Date: June 14, 2004

Work Order: 4060406

Project Name: Ground water Sampling at HELSTF TSA
Project Number: 20-A11

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
35761	HLSF-TSA-HMW-048-0604	water	2004-06-03	09:40	2004-06-04
35763	HLSF-TSA-HMW-052-0604	water	2004-06-03	10:21	2004-06-04
35765	HLSF-TSA-HMW-044-0604	water	2004-06-02	14:32	2004-06-04
35767	HLSF-TSA-HMW-050-0604	water	2004-06-02	10:41	2004-06-04
35769	HLSF-TSA-HMW-150-0604	water	2004-06-02	10:41	2004-06-04

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 3 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 35761 - HLSF-TSA-HMW-048-0604

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	10341	Date Analyzed:	2004-06-11	Analyzed By:	JSW
Prep Batch:	9145	Date Prepared:	2004-06-09	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		7210	mg/L	5	10.00

Sample: 35763 - HLSF-TSA-HMW-052-0604

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	10341	Date Analyzed:	2004-06-11	Analyzed By:	JSW
Prep Batch:	9145	Date Prepared:	2004-06-09	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		8640	mg/L	5	10.00

Sample: 35765 - HLSF-TSA-HMW-044-0604

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	10341	Date Analyzed:	2004-06-11	Analyzed By:	JSW
Prep Batch:	9145	Date Prepared:	2004-06-09	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		8015	mg/L	5	10.00

Sample: 35767 - HLSF-TSA-HMW-050-0604

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	10341	Date Analyzed:	2004-06-11	Analyzed By:	JSW
Prep Batch:	9145	Date Prepared:	2004-06-09	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		7675	mg/L	5	10.00

Sample: 35769 - HLSF-TSA-HMW-150-0604

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	10341	Date Analyzed:	2004-06-11	Analyzed By:	JSW
Prep Batch:	9145	Date Prepared:	2004-06-09	Prepared By:	JSW

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		7510	mg/L	5	10.00

Method Blank (1) QC Batch: 10341

Parameter	Flag	Result	Units	RL
Total Dissolved Solids		<10.00	mg/L	10

Duplicate (1) QC Batch: 10341

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	1534	1418	mg/L	2	8	8.7

Standard (ICV-1) QC Batch: 10341

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	994.0	99	90 - 110	2004-06-11

Standard (CCV-1) QC Batch: 10341

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	994.0	99	90 - 110	2004-06-11

Appendix K

Tier 1 Report Forms

Tier 1 Report Forms

Risk-Based Decision Making For Petroleum Releases At Underground Storage Tank Sites In New Mexico

SITE NAME:	*High Energy Laser Systems Test Facility*
SITE LOCATION:	*Technical Support Area (TSA)*
SITE ID:	*HELSTF TSA POL Station*
FACILITY ID:	*White Sands Missile Range*
SUBMITTAL DATE:	*July 31, 2004*
PREPARED BY:	*Neil V. Maimer*
REVIEWED BY:	

TABLE OF CONTENTS *(Page 1 of 3)*

☐ *Check the box against the item, if the item is included.*

Form No.	Description	TIER 1 REPORT FORMS	
1.	Executive summary.		☑
2.	Site conceptual exposure scenario.		☑
3.	Justification for pathways complete and incomplete.		
		Residential (child and adult).	☐
		Commercial worker.	☐
		Construction worker.	☑
4.	Comparison of Tier 1 RBSLs with representative site concentrations.		
	On-site receptors.		
		Resident (child and adult).	☐
		Commercial worker.	☐
		Construction worker.	☑
	Off-site receptors.		
		Resident (child and adult).	☐
		Commercial worker.	☐
		Construction worker.	☐
5.	Tier 1 groundwater protection - no petition for variance to WQCC standards required.		☑
6.	Tier 1 groundwater protection - petition for variance to WQCC standards required.		☐
7.	Tier 1 applicable target levels for various media.		☐
8.	Tier 1 conclusions and recommendations.		☑
9.	References and protocol.		☐

TABLE OF CONTENTS *(Page 2 of 3)*

All maps submitted to NMED must include a bar scale, legend, north arrow, location of all known soil borings and monitoring wells, and date of map, where appropriate.

☐ *Check the box against the item, if the item is included.*

Map No.	Description	MAPS

Maps 1-6 are part of 14 Day Report and maps 7-10 are part of Investigation Report. Update and resubmit as appropriate.

Note: Maps may be combined, as appropriate. ☐

1. Topographic map.
2. Site map with UST system location(s), including tank ID number(s). ☐
3. Site map with utility locations. ☐
4. Land use map (radius of 1,000 feet). ☐
5. Receptor survey map: with detailed land use in the vicinity of the site (at least 1,000 feet in the downgradient direction and one property deep on all other sides including across the street). ☐
6. Area map with water use well locations: within one mile radius of the site (the wells on the map must be labeled). Maps must also indicate the location of surface water drains including but not limited to streams, lakes and well head protection areas, within a 500 foot radius of the site. ☐
7. NAPL thickness contour map. ☐
8. Area geologic map. ☐
9. Groundwater gradient map: contoured map with the predominant flow direction from the most recent gauging event (add additional maps if the flow direction fluctuates). ☐
10. Soil and groundwater concentration contour maps showing boring and well locations and concentrations in each: for benzene, MTBE, total BTEX, and Total PAHs from the most recent sampling event. ☐
11. Map identifying the location of data points used to calculate representative soil concentrations protective of groundwater. ☐
12. Map Identifying POE(s) and POC(s): for both current and future conditions. ☐

ADDITIONAL MAPS:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

TABLE OF CONTENTS *(Page 3 of 3)*

☐ *Check the box against the item, if the item is included.*

Attachment No.	Description	ATTACHMENTS

Aattachments 1and 2 are part of 14 Day Report and attchments 3-7 are part of Investigation Report. Update and resubmit as appropriate.

1. Most recent UST system test results. ☐
2. Vapor screening results for utilities. ☐
3. Estimation of NAPL present: Estimated thickness vs measured thickness of NAPL. Include calculation brief for estimated thickness. ☐
4. Monitoring well construction diagram. ☐
5. Representative soil boring logs: cross-section(s) showing the stratigraphy of the site and the extent of contamination. ☐
6. Historical groundwater monitoring data for all the monitoring wells. Include any data collected from temporary wells or borings. ☐
7. Contaminant concentration and depth to groundwater vs. time graphs for wells with four or more sampling events. ☐
8. Description of the logic used in the selection of data for calculation of representative site concentrations, for on site and off-site media. Provide raw data selected and representative concentrations. ☐
9. Justification for the selection of POE(s), POC(s), and groundwater standards (MCLs vs. WQCC standards). ☐

ADDITIONAL ATTACHMENTS:

Laboratory analytical report(s) not previously submitted to the department.

NEW MEXICO RBDM	TIER 1 REPORT	FORM NO. 1

SITE ID: HELSTF TSA POL Station	**FACILITY ID: White Sands Missile Range**
SUBMITTAL DATE: 31-Jul-04	**PREPARED BY: Neil V. Maimer**

EXECUTIVE SUMMARY

Facility name:	*White Sands Missile Range*
Facility address:	
Status of UST system:	☐ Active ☑ Inactive
Ground surface condition:	
Estimated volume and type of product(s) released:	*Greater than 1,800 gallons of unleaded gasoline*
Has any vapor impacts been identified?	☑ No ☐ On-site ☐ Off-site
If yes (check all that apply):	☐ Utility corridor ☐ Subsurface structures ☐ Above surface structures
Is soil contaminated?	☐ No ☑ On-site ☐ Off-site
Is there any contaminant-saturated soil?	☑ No ☐ On-site ☐ Off-site
Is groundwater contaminated?	☑ No ☐ On-site ☐ Off-site
Has the source of release been identified?	☑ Yes ☐ No
Has NAPL ever been detected?	☑ Yes ☐ No
Was NAPL removed?	☑ Yes ☐ No
Was NAPL detected in the most recent sampling event?	☐ Yes ☑ No
Has surface water been contaminated by the release?	☐ Yes ☑ No ☐ Uknown ☐ Suspected
Shallowest depth to groundwater (ft bgs.):	*Perched water encountered @ 15 ft and again @ 30 -35 ft bgs*
Average depth to groundwater (ft bgs.):	*Regional groundwater resource encountered at approx. 90 ft bgs*
Has a drinking water supply well been contaminated by this release?	☐ Yes ☑ No ☐ Unknown ☐ Suspected
If yes	☐ Drinking ☐ Irrigation ☐ Other

RECOMMENDATIONS

- ☑ No further action under tier 1
- ☑ Compliance monitoring
- ☐ Remediate to tier 1 RBSLs and WQCC standards to achieve no further action
- ☐ Perform interim remedial action and then re-evaluate
- ☐ Perform tier 2 evaluation
- ☐ Petition WQCC for approval of alternative groundwater standards

ADDITIONAL NOTES

Perched Water encountered in a sand lens at 30 - 35 feet contains 27000ppm TDS. TDS concentrations in shallow perched water encountered at 15 ft bgs is unknown.

NEW MEXICO RBDM	TIER 1 REPORT	FORM NO. 2 - SCES
SITE ID: HELSTF TSA POL Station	FACILITY ID: White Sands Missile Range	
SUBMITTAL DATE: 31-Jul-04	PREPARED BY: Neil V. Maimer	

SITE CONCEPTUAL EXPOSURE SCENARIO

CONTAMINATED MEDIA	PATHWAYS/TRANSPORT MECHANISMS	EXPOSURE ROUTES	POTENTIAL RECEPTORS	CURRENT LAND USE								FUTURE LAND USE							
				ON-SITE				OFF-SITE				ON-SITE				OFF-SITE			
				Residents-Child	Residents - Adult	Commercial Workers	Construction Workers	Residents-Child	Residents - Adult	Commercial Workers	Construction Workers	Residents-Child	Residents - Adult	Commercial Workers	Construction Workers	Residents-Child	Residents - Adult	Commercial Workers	Construction Workers
Air Vapors			Inhalation (Indoors)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			Inhalation (Outdoors)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surficial Soil	Wind Erosion/Dispersion/ Volatilization/Vapor Migration		Inhalation (vapors & particulates) and Dermal Contact and Ingestion	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Subsurface Soils	Volatilization/Vapor Migration		Inhalation (Indoors)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			Inhalation (Outdoors)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	C	NA	NA	NA	NA
			Dermal Contact and Ingestion	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	C	NA	NA	NA	NA
Groundwater	Volatilization/Vapor Migration		Inhalation (Indoors)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			Inhalation (Outdoors)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Drinking Water		Ingestion	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

	YES	NO
Contaminant-saturated soil present?	☐	☑
Nonaqueous phase liquid present?	☐	☑
Utilities Threatened ?	☐	☑
Surface Waters within a 500 foot radius?	☐	☑
Ecological Receptors?	☐	☑
Leaching to groundwater?	☐	☑

C Indicates potentially completed pathways

NA Not applicable as per the NMED policy

For construction worker, no distinction is made between the surficial and subsurface soils.

NEW MEXICO RBDM	TIER 1 REPORT	FORM NO. 3-CONSTRUCTION WORKER
SITE ID: HELSTF TSA POL Station	FACILITY ID: White Sands Missile Range	
SUBMITTAL DATE: 31-Jul-04	PREPARED BY: Neil V. Maimer	

JUSTIFICATION OF PATHWAYS - ON-SITE CONSTRUCTION WORKER

ROUTES OF EXPOSURE	CURRENT CONDITIONS		FUTURE CONDITIONS	
	C/ NC*	JUSTIFICATION	C/ NC*	JUSTIFICATION
SOIL WITHIN THE TYPICAL CONSTRUCTION DEPTH				
Ingestion, outdoor inhalation of vapors and particulate matter, and dermal contact	*NC*	*Depth to contamination is >15 feet.*	*C*	*Depth to contamination is >15 feet.*
GROUNDWATER				
Outdoor inhalation of vapors	*NC*	*Depth to groundwater is approximately 90 feet bgs. Recent sampling indicates no contamination.*	*NC*	*Depth to groundwater is approx. 90 feet bgs. Recent sampling indicates no contamination.*

JUSTIFICATION OF PATHWAYS - OFF-SITE CONSTRUCTION WORKER

SOIL WITHIN THE TYPICAL CONSTRUCTION DEPTH				
Ingestion, Outdoor Inhalation of Vapors and Particulate Matter, and Dermal Contact	*NC*	*Source not located offsite.*	*NC*	*Source not located offsite.*
GROUNDWATER				
Outdoor inhalation of vapors	*NC*	*Source not located offsite.*	*NC*	*Source not located offsite.*

NOTE:

* **C** : Complete Pathway, **NC** : Not Complete

No distinction is made between surficial soil and subsurface soil for a construction worker within the zone of construction since subsurface soil may be brought to the surface during construction/excavation activities.

NEW MEXICO RBDM	TIER 1 REPORT	FORM NO. 4 - CONSTRUCTION WORKER
SITE ID: HELSTF TSA POL Station		FACILITY ID: White Sands Missile Range
SUBMITTAL DATE: 31-Jul-04		PREPARED BY: Neil V. Maimer

COMPARISON OF TIER 1 RBSLs WITH REPRESENTATIVE CONCENTRATIONS - ON-SITE CONSTRUCTION WORKER

CONTAMINANTS OF CONCERN	SOIL WITHIN THE TYPICAL CONSTRUCTION ZONE				GROUNDWATER		
	Ingestion, inhalation,and dermal contact			C	Outdoor inhalation of vapors		NC
	Representative concentration [mg/kg]	RBSLs [mg/kg]		E/Exceeds or NE/Not Exceeds	Representative concentration [µg/L]	RBSLs [µg/L]	E/Exceeds or NE/Not Exceeds
ORGANICS							
Benzene	2.49	1.67E+02		NE			
Toluene	19.15	6.31E+03	>RES	NE			
Ethylbenzene	8.76	5.98E+03	>RES	NE			
Xylenes (Total)	25.99	8.00E+03	>RES	NE			
Ethylene Dibromide (EDB)	N/A	6.19E-01					
1,2-Dichloroethane (EDC)	N/A	1.30E+02					
MTBE	0.00	3.77E+02		NE			
POLYCYCLIC AROMATIC HYDROCARBONS							
Acenaphthene	N/A	1.16E+04	>RES				
Anthracene	N/A	9.96E+04	>RES				
Benzo(a)anthracene	N/A	4.19E+02	>RES				
Benzo(a)pyrene	N/A	4.28E+01	>RES				
Benzo(b)fluoranthene	N/A	4.10E+02	>RES				
Benzo(k)fluoranthene	N/A	4.27E+02	>RES				
Chrysene	N/A	3.99E+04	>RES				
Dibenz(a-h)anthracene	N/A	4.32E+01	>RES				
Fluoranthene	N/A	1.60E+04	>RES				
Fluorene	N/A	1.10E+04	>RES				
Total Naphthalenes	0.0293	3.23E+03	>RES	NE			
Phenanthrene	N/A	7.90E+03	>RES				
Pyrene	N/A	1.24E+04	>RES				
METALS							
Lead	N/A	1.00E+03	N/A				

NOTE:

Enter the representative concentration and indicate.

Representative concentration is:

Soil:

Groundwater:

N/A: Not applicable

>RES: Calculated RBSLs exceeded residual soil saturation level.

>SOL: Calculated RBSLs exceeded pure component water solubility.

This comparative evaluation is performed automatically after the user has completed Report Form No.3 and entered the representative concentration on this form for complete pathways.

NEW MEXICO RBDM	TIER 1 REPORT	FORM NO. 4 - CONSTRUCTION WORKER

SITE ID: HELSTF TSA POL Station	FACILITY ID: White Sands Missile Range
SUBMITTAL DATE: 31-Jul-04	PREPARED BY: Neil V. Maimer

COMPARISON OF TIER 1 RBSLs WITH REPRESENTATIVE CONCENTRATIONS - OFF-SITE CONSTRUCTION WORKER

CONTAMINANTS OF CONCERN	SOIL WITHIN THE TYPICAL CONSTRUCTION ZONE			GROUNDWATER		
	Ingestion, inhalation,and dermal contact		NC	Outdoor inhalation of vapors		NC
	Representative concentration [mg/kg]	RBSLs [mg/kg]	E/Exceeds or NE/Not Exceeds	Representative concentration [µg/L]	RBSLs [µg/L]	E/Exceeds or NE/Not Exceeds
ORGANICS						
Benzene						
Toluene						
Ethylbenzene						
Xylenes (Total)						
Ethylene Dibromide (EDB)						
1,2-Dichloroethane (EDC)						
MTBE						
POLYCYCLIC AROMATIC HYDROCARBONS						
Acenaphthene						
Anthracene						
Benzo(a)anthracene						
Benzo(a)pyrene						
Benzo(b)fluoranthene						
Benzo(k)fluoranthene						
Chrysene						
Dibenz(a-h)anthracene						
Fluoranthene						
Fluorene						
Total Naphthalenes						
Phenanthrene						
Pyrene						
METALS						
Lead						

NOTE:

Enter the representative concentration and indicate.

Representative concentration is:

Soil:

Groundwater:

N/A: Not applicable

>RES: Calculated RBSLs exceeded residual soil saturation level.

>SOL: Calculated RBSLs exceeded pure component water solubility.

This comparative evaluation is performed automatically after the user has completed Report Form No.3 and entered the representative concentration on this form for complete pathways.

NEW MEXICO RBDM	TIER 1 REPORT	FORM NO. 5

SITE ID: HELSTF TSA POL Station	FACILITY ID: White Sands Missile Range
SUBMITTAL DATE: 31-Jul-04	PREPARED BY: Neil V. Maimer

TIER 1 GROUNDWATER PROTECTION - NO PETITION FOR VARIANCE TO WQCC STANDARDS REQUIRED

	COMPARISON FOR SOURCE SOIL			COMPARISON FOR GROUNDWATER											
				MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10		
CONTAMINANTS OF CONCERN	Source rep. conc. * [mg/kg]	RBSLs** [mg/kg]	E/Exceeds or NE/Not Exceeds	Recent# 8 qrtr max. [µg/L]	Recent# 8 qrtr max. [µg/L]	Recent# 8 qrtr max. [µg/L]	Recent# 8 qrtr max. [µg/L]	Recent# 8 qrtr max. [µg/L]	Recent# 8 qrtr max. [µg/L]	Recent# 8 qrtr max. [µg/L]	Recent# 8 qrtr max. [µg/L]	Recent# 8 qrtr max. [µg/L]	Recent# 8 qrtr max. [µg/L]	WQCC std. or RBSL [µg/L]	E/Exceeds or NE/Not Exceeds
ORGANICS															
Benzene	2.49	6.00E-02	E												
Toluene	19.15	7.10E+00	E												
Ethylbenzene	8.76	-	NE												
Xylenes (Total)	25.99	8.74E+00	E												
Ethylene Dibromide (EDB)															
1,2-Dichloroethane (EDC)															
MTBE	0.0046	1.70E-01	NE												
POLYCYCLIC AROMATIC HYDROCARBONS															
Acenaphthene															
Anthracene															
Benzo(a)anthracene															
Benzo(a)pyrene															
Benzo(b)fluoranthene															
Benzo(k)fluoranthene															
Chrysene															
Dibenz(a-h)anthracene															
Fluoranthene															
Fluorene															
Total Naphthalenes	0.0293	-	NE												
Phenanthrene															
Pyrene															
METALS															
Lead															

NOTE:

* Source representative concentration is: _____

** Back-calculated from WQCC groundwater standards for distance to POE=0 (from Table 4-15 of the Guidance Document)

\# The representative concentrations in each monitoring well should be the maximum for the most recent 8 consecutive quarters, unless otherwise approved.

N/A: Not applicable

This comparative evaluation is performed automatically after the user has input representative concentrations and target levels for soil and representative concentrations for groundwater.

NEW MEXICO RBDM	TIER 1 REPORT	FORM NO. 5

SITE ID: HELSTF TSA POL Station	**FACILITY ID: White Sands Missile Range**
SUBMITTAL DATE: 31-Jul-04	**PREPARED BY: Neil V. Maimer**

TIER 1 GROUNDWATER PROTECTION - NO PETITION FOR VARIANCE TO WQCC STANDARDS REQUIRED

	COMPARISON FOR GROUNDWATER														
	MW-11	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22	MW-23		
CONTAMINANTS OF CONCERN	Recent# 8 qrtr max. [µg/L]	Recent# 8 qrtr max. [µg/L]	Recent# 8 qrtr max. [µg/L]	Recent# 8 qrtr max. [µg/L]	Recent# 8 qrtr max. [µg/L]	Recent# 8 qrtr max. [µg/L]	Recent# 8 qrtr max. [µg/L]	Recent# 8 qrtr max. [µg/L]	Recent# 8 qrtr max. [µg/L]	Recent# 8 qrtr max. [µg/L]	Recent# 8 qrtr max. [µg/L]	Recent# 8 qrtr max. [µg/L]	Recent# 8 qrtr max. [µg/L]	WQCC std. or RBSL [µg/L]	E/Exceeds or NE/Not Exceeds
ORGANICS															
Benzene															
Toluene															
Ethylbenzene															
Xylenes (Total)															
Ethylene Dibromide (EDB)															
1,2-Dichloroethane (EDC)															
MTBE															
POLYCYCLIC AROMATIC HYDROCARBONS															
Acenaphthene															
Anthracene															
Benzo(a)anthracene															
Benzo(a)pyrene															
Benzo(b)fluoranthene															
Benzo(k)fluoranthene															
Chrysene															
Dibenz(a-h)anthracene															
Fluoranthene															
Fluorene															
Total Naphthalenes															
Phenanthrene															
Pyrene															
METALS															
Lead															

NOTE:

N/A: Not applicable

The representative concentrations in each monitoring well should be the maximum for the most recent 8 consecutive quarters, unless otherwise approved.

This comparative evaluation is performed automatically after the user has input the representative concentrations.

NEW MEXICO RBDM	TIER 1 REPORT	FORM NO. 8

SITE ID: HELSTF TSA POL Station	FACILITY ID: White Sands Missile Range
SUBMITTAL DATE: 31-Jul-04	PREPARED BY: Neil V. Maimer

TIER 1 CONCLUSIONS AND RECOMMENDATIONS

1.	*Has the site been adequately investigated and characterized?*
	A preliminary Investigation in 2000 by MEVATEC; an interim remedial action utilizing SVE in 2000 and a subsurface characterization to determine the effectiveness of the SVE and determine the extent of impacted soils in 2004 by North Wind. Further compliance groundwater monitoring may be necessary along with an additional groundwater monitoring well through the impacted zone at a later date. Contaminant concentrations are low even though they still exceed the levels considered protective of groundwater. The regional groundwater is protected by thick sequences of clay and silty clay above it.
2.	*Has NAPL been removed?*
	NAPL was found on the surface of a perched water at 15 ft site during a previous investigation in 2000. The interim remedial action (soil vapor extraction (SVE) system) was installed and approximately 1,790 gallons of gasoline were removed.
3.	*Is the groundwater plume stable or shrinking, based on the concentration trend plots?*
	The regional groundwater resource is encountered at approximately 90 ft. Groundwater Monitoring has been performed in 2000 and again in 2004 utilizing three monitoring points surrounding the impact area. An additional groundwater monitoring point was installed during the 2004 investigation. No contaminents have been found in the groundwater at this site.
4.	*Are on-site soil and groundwater concentrations protective of current and reasonable future on-site receptors?*
	Yes, unless a contractor facility is build, or there is a land use change in the future which would allow construction of residences directly above the contaminated area.
5.	*Are off-site soil and groundwater concentrations protective of current and reasonable future off-site receptors?*
	Yes, all contamination is confined to the site.
6.	*Are soil concentrations protective of groundwater?*
	No, the unsaturated soil configuration is 27. Representative concentrations for BTEX are above listed RBSLs. However, the lithology inconjunction with the lower concentrations in comparison to the 2000 concentrations are protective of groundwater.
7.	*Are groundwater concentrations below the applicable standards?*
	The regional groundwater resource has not been impacted beneath the site.

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TIER 1 CONCLUSIONS AND RECOMMENDATIONS

8.	*Is a waiver petition for alternative groundwater protection standards recommended?*
	No.
9.	*Is compliance monitoring of groundwater recommended?*
	Compliance monitoring is recommended on the existing monitoring network that exists at the HELSTF TSA POL fuel spill site.
10.	*Is an interim remediation and tier 1 re-evaluation recommended?*
	SVE has already been used as an Interim Remedial Action which was very effective in the upper more porous materials from 0 to 20 feet below ground surface. Injection of a bioenhancing agent to aid the breakdown of contaminants in the 30 to 35 ft zone may be considered if a No further action is not granted.
11.	*Is remediation to tier 1 target levels recommended?*
	Not at this time
12.	*Is site recommended for NFA status?*
	It is the interpretation from this last investigation that provides the recommendation of granting a no further action with continued compliance monitoring at the site.
13.	*Is a Tier 2 evaluation recommended? If yes, list the receptors, routes of exposure, and the COCs to be evaluated.*
	No
14.	*Other relevant information*
	Groundwater sampling of the two perched waters could be performed by utilizing the former vapor extraction wells. The sampling of the perched water could also give some insight into the degradation of the contaminant or if the bioenhancing remediation technology would be effective. Groundwater levels were taken from the vapor extraction points during the 2004 field effort and there was no indication of free product, visual sheen, or odors from the interface probe.