

GW - 204

REPORTS

YEAR(S):

10-19-2000

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Llano -Permian Environmental

BAKER PETROLITE CORPORATION

SUBSURFACE INVESTIGATION

AND

SAMPLING REPORT

**Baker Petrolite Corporation
Industrial Avenue and S.R. 229
Artesia, New Mexico**

October 19, 2000

**Llano-Permian Environmental
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Baker Petrolite Corporation

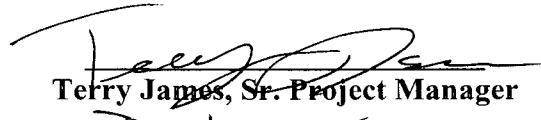
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CHAIN OF CUSTODY SHEETS

BORING LOGS

1.0 EXECUTIVE SUMMARY

Llano-Permian Environmental Services (LP) conducted a series of soil borings at the Baker Petrolite facility located at the corner of Industrial Avenue and S.R. 229 in Artesia, New Mexico on August 17th, 2000. A total of ten soil borings were completed to a depth of 20 feet (bgs) at the site. Each soil boring was sampled at one-foot intervals and screened for the presence of volatile hydrocarbons using a photoionization detector (PID). None of the headspace analyses performed on the samples detected the presence of hydrocarbons in the soils. The location of each soil boring can be seen in Figure 1. Minimal visible hydrocarbon staining was noted on the surface at the site. The areas that contained slight hydrocarbon staining included areas where chemical truck loading and unloading occurs. Historical spill sites were not observed at the site. None of the soil boring locations exhibited contaminants that exceeded regulatory action levels.

2.0 SCOPE OF WORK

Baker Petrolite requested a subsurface investigation on the property at the corner of Industrial Avenue and S.R. 229 in Artesia, New Mexico to evaluate potential liabilities that may have resulted from past chemical operations and management practices. The New Mexico Oil Conservation Department (NMOCD) was notified of Baker Petrolite's intent to conduct the investigation at the site using a drilling rig equipped with a core barrel and split spoon to collect continuous soils samples from various locations on the site. By collecting these samples, a more comprehensive study to identify potential environmentally sensitive areas within the facility and then assess risk to human health and the environment can be undertaken, if warranted.

3.0 DRILLING METHODOLOGY

Llano-Permian, in the proposed Scope of Work, elected to use an air rotary rig to penetrate the hard caliche soils characteristically found in West Texas and southeastern New Mexico. The initial request for Direct Push Technology (DPT) was altered due to the technology not being feasible in calcareous soils and indurated caliche. Total depths of each soil boring are listed in Table 1. Groundwater was not encountered in any of the borings, as expected.

4.0 SAMPLE COLLECTION AND ANALYTICAL PARAMETERS

A Failing (manufacturer's name) Air Rotary drilling rig equipped with a core barrel was used to collect samples at one-foot intervals from all soil boring locations. The ten soil borings were installed on August 17th, 2000. The soil borings were advanced using air rotary drilling to depths of 20-feet bgs at all soil boring locations. A summary of analytical parameters requested for the soil borings is listed below in **Table 1**.

CORE BORING #	VOC	SVOC	TOTAL METALS	TPH	BTEX
SB-1 (0-1')	•	•	•	•	
SB-1 (20')	•	•	•	•	
SB-2 (0-1')	•	•	•	•	
SB-2 (20')				•	•
SB-3 (0-1')				•	•
SB-3 (20')				•	•
SB-4 (0-1')				•	•
SB-4 (20')				•	•
SB-5 (0-1')				•	•
SB-5 (20')				•	•
SB-6 (0-1')				•	•
SB-6 (20')				•	•
SB-7 (0-1')				•	•
SB-7 (20')				•	•
SB-8 (0-1')				•	•
SB-8 (20')				•	•
SB-9 (0-1')	•	•	•	•	
SB-9 (20')	•	•	•	•	
SB-10 (0-1')				•	•
SB-10 (20')				•	•

Table 1 . Summary of analytical parameters tested at Baker Petrolite Artesia facility.

A core barrel was used to lift one-foot sections of cored materials for headspace analysis using a Thermo OVM Model 580B with a 10.6 EV lamp photoionization detector (PID). None of the soil boring samples exhibited positive readings from the PID. Samples for analyses at the laboratory were collected at the 0-1' depths as well as at terminus depths. The resulting soil cuttings were drummed and labeled and left on-site awaiting analytical results to determine the course of action for the soil cuttings.

5.0 LITHOLOGY

With some slight variation in the depths of the soil layers encountered, all ten soil borings exhibited similar lithologies. Brown, clayey soils and caliche was encountered in the upper three-foot portion of the borings. Below this was a sand/caliche layer which terminated at approximately 15 to 19 feet bgs, where a hard limestone layer was then encountered. The thickness of the limestone layer varied, but was determined to be greater than five feet thick in the borings completed to a depth of 20 feet bgs. The maximum drilling depth was 20 feet bgs, so the total depth of the hard limestone was not determined.

6.0 SOIL BORING ABANDONMENT

Each soil boring was filled with bentonite chips to a depth of 0.5 feet bgs. Water was then added to hydrate the bentonite material and seal the borehole. The upper six-inch section was sealed with Quikrete cement and leveled with the surface topography.

7.0 ANALYTICAL RESULTS & DISCUSSIONS

Samples from each soil boring were collected and submitted for analyses. A total of 20 samples were sent to the laboratory. The soil samples were analyzed by Trace Analyses of Lubbock, Texas. The soil samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and total metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver). Additional parameters, such as Total Petroleum Hydrocarbons (TPH) consisting of diesel range organics (DRO) and gasoline range organics (GRO) and BTEX constituents (benzene, toluene, ethylbenzene, and xylenes) were analyzed in the lab for most of the samples. A complete list of compounds is found in Table 2.

The following observations were documented:

- **VOCs:** One VOC was detected in the soil boring sample from SB-1 (0-1'). The VOC detected in SB-1 (0-1') was naphthalene.
- **SVOCs:** Twelve SVOCs were detected in the soil boring sample from SB-1 (0-1'). The SVOCs detected in SB-1 (0-1') were phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)Pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene, and benzo(g,h,I)perylene. ~~One SVOC, bis(2-ethylhexyl)phthalate, was detected in SB-9 (20') in concentrations of 0.36 mg/Kg and appears to be an anomaly.~~
- **BTEX:** BTEX constituents, using EPA Method 8015, were detected in only one surficial sample at SB-3 (0-1'). Total concentrations of 0.061 mg/Kg toluene and 0.078 mg/Kg total xylenes were detected.
- **TPH:** A total petroleum hydrocarbon concentration of 46 mg/Kg gasoline-range organic (GRO) was detected at SB-1 (0-1').
- **METALS:** Total barium, chromium and lead were detected above the laboratory PQL in SB-1, SB-2, and SB-9. Barium concentrations detected in SB-1 (0-1') and (20') were 169 mg/Kg and 177 mg/Kg, respectively. SB-2 (0-1') concentration was 198 mg/Kg. SB-9 (0-1') and (20') concentrations were 83 and 400 mg/Kg. Total lead concentration detected in SB-1 (0-1') was 35 mg/Kg and 21 mg/Kg and 5 mg/Kg for SB-9 (0-1') and (20'), respectively. ~~Total chromium concentrations in SB-1 (0-1') and (20') detected were 8.6~~

~~0 mg/Kg~~ and ~~19.8 mg/Kg~~, respectively. In SB-9~~(20')~~, total chromium concentration was ~~7.5 mg/Kg~~. In SB-1 (0-1'), total mercury concentration was 0.2 mg/Kg, just above the laboratory PQL of 0.19 mg/Kg.

8.0 REGULATORY CONSIDERATIONS

According to the guidelines for remediation of leak, spills, and releases, the New Mexico Oil Conservation Division (NMOCD, OCD Rule 116) recommended remediation levels for soils based on surface to groundwater depth, wellhead protection area, and distance to nearest surface water body. The site was evaluated using the recommended OCD criteria. A site that scores a ranking greater than a 19, must cleanup TPH contamination to 100 ppm. For a site that scores a ranking between a 10 and 19, the TPH contamination must be remediated to 1000 ppm. A site must cleanup TPH contamination to a minimum of 5000 ppm if the ranking is less than 9. Regardless of the ranking, benzene must be cleaned up to a minimum of 10 ppm and total BTEX of 50 ppm.

During the site evaluation it was determined that ~~groundwater in the area is approximately 80 to 120 feet in depth~~. Using the conservative estimate of 80 feet, the site would score a ranking of 10 for depth to groundwater. There is not a water source less than 1000 feet from the site nor is there a private domestic well located less than 200 feet from the site. Based on this well information the site scores a ranking of 0 for a wellhead protection area. The third criteria for ranking is the distance to the nearest surface water body. There is no surface water body located within 1000 feet of the site, therefore, the site scores a ranking of 0 for distance to a surface water body. Based on this evaluation the site scores a 10 ranking and any TPH contamination must be remediated to a minimum of 1000 ppm. None of the contaminants exceed action levels for the site.

In addition, the NMOCD did cite the federal regulations (40 CFR 261.24, Toxicity Characteristic, Maximum Concentration of Contaminants for the Toxicity Characteristic) for metals when determining any regulatory limits and the disposition of any contaminated soils.

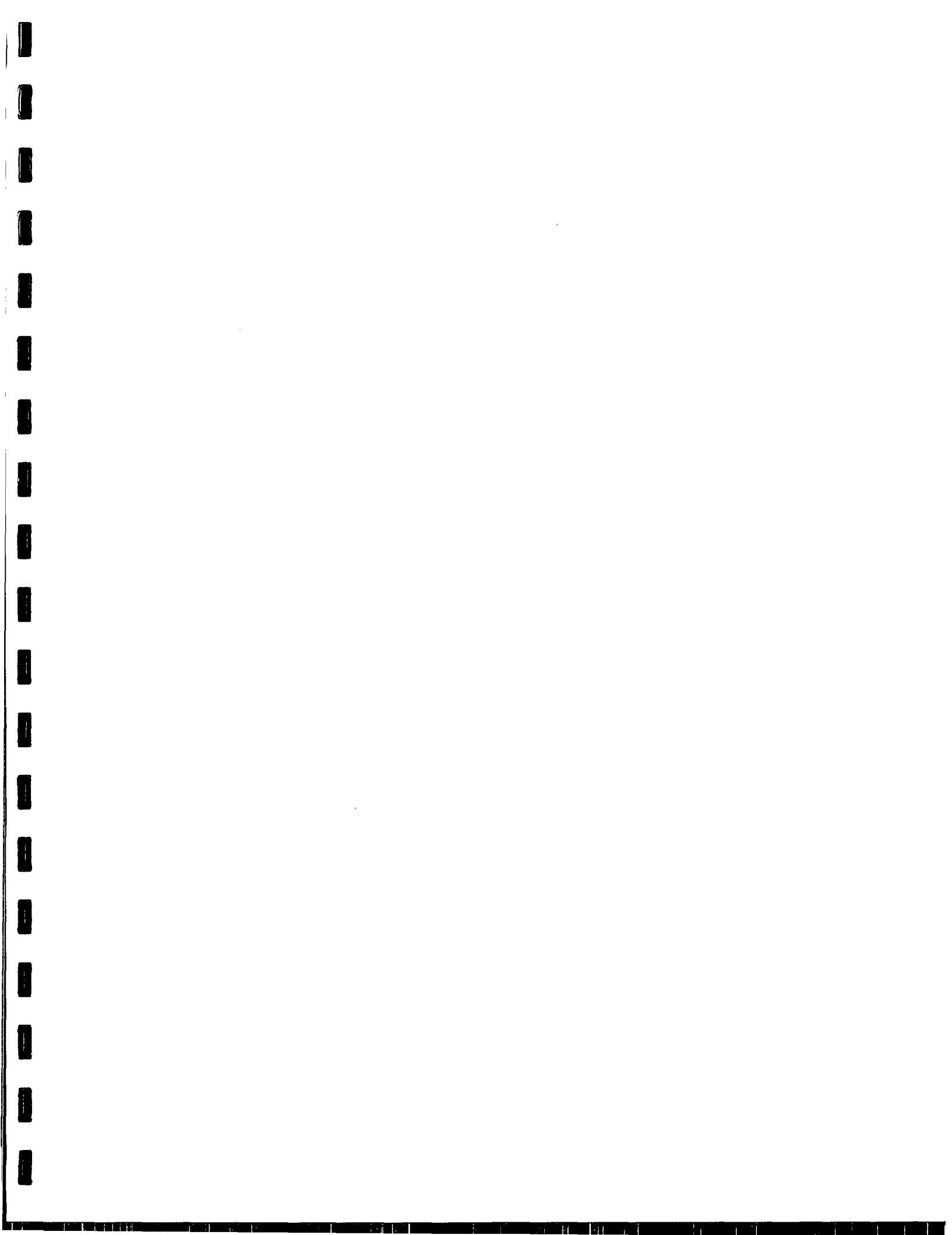
Even though the site is not under the jurisdiction of the New Mexico Environmental Department (NMED), Llano-Permian compared the contaminants identified in the shallow soil to the NMED published groundwater protection criteria. Upon review of the Tier I Soil Concentrations Protective of Groundwater (No Transport Zone in the Unsaturated Zone) guidelines (20 NMAC 5.12.1209) from the NMED, the concentrations of the contaminants found at this site are below the limits established in those guidelines (see Table 2, far right column).

9.0 CONCLUSIONS

The Baker Petrolite site in Artesia, New Mexico contains very minimal surficial contamination. The low concentrations of VOCs, SVOCs, BTEX constituents, and metals do not appear to pose an environmental concern at present. According to the NMOCD, the remediation compliance criterion for benzene is 10 ppm (parts per million). For total BTEX constituents, the remediation action level is 50 ppm. None of the soil borings revealed benzene or total BTEX in excess NMOCD regulatory criteria.

For TPH, the remediation action level is 5,000 ppm if groundwater is greater than 100 feet bgs or 1,000 ppm if greater than 50 feet bgs but less than 100 feet bgs. Conservative estimates of average groundwater depth for the Artesia area range from 120 feet to 80 feet bgs. Llano-Permian used the 1,000-ppm TPH limit as the basis for determining the remediation action for the soils sampled at the site. Clean up of soils at the reported analytical concentrations in this report is not required by the NMOCD. These values are based on potential health risks and incorporate depth to groundwater values in determining the clean-up concentrations.

~~The total metals concentrations identified in the background soil boring and other soil borings are consistent with known background concentrations for the geographical area.~~



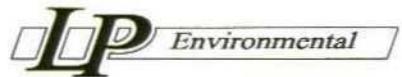


TABLE 2.
Soil and Water Petrolite Subsurface Investigation
Artesia, New Mexico Facility
8/17/00



TABLE 2.
Baker Petrolite Subsurface Investigation
Artesia, New Mexico Facility
8/17/00

LAB SAMPLE NUMBER SOIL BORING NUMBER	Baker Petroleum Subsurface Investigation Artesia, New Mexico Facility 8/17/00																		NMOCD GUIDELINES FOR REMEDIATION OF LEAKS, SPILLS, AND RELEASES Aug-93	TIER 1 ** SOIL CONCENTRATIONS PROTECTIVE OF GROUNDWATER mg/Kg		
	SB-1		SB-2		SB-3		SB-4		SB-5		SB-6		SB-7		SB-8		SB-9		SB-10			
	SAMPLE DEPTH	0-1'	20'	0-1'	20'	0-1'	20'	0-1'	20'	0-1'	20'	0-1'	20'	0-1'	20'	0-1'	20'	0-1'	20'			
SEMI-VOLATILES																						
Analytical Method 8270	(ppm)	mg/Kg	mg/Kg	mg/Kg																		
Pyridine		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
n-Nitrosodimethylamine		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
2-Picoline		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
Methyl methanesulfonate		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
Ethyl methanesulfonate		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
Phenol		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
Aniline		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
bis(2-chloroethyl)ether		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
2-Chlorophenol		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
1,3-Dichlorobenzene		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
1,4-Dichlorobenzene		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
Benzyl Alcohol		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
1,2-Dichlorobenzene		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
2-Methylphenol		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
bis(2-chloroisopropyl) ether		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
4-Methylphenol/3-Methylphenol		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
Acetophenone		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
n-Nitroso-n-propylamine		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
Hexachloroethane		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
Nitrobenzene		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
n-Nitroso-piperidine		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
Isothorone		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
2-Nitrophenol		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
2,4-Dimethylphenol		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
bis(2-chlorooxy) methane		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
Benzoic Acid		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
2,4-Dichlorophenol		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
1,2,4 Trichlorobenzene		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
z,a Dimethylphenethylamine		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
Naphthalene		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
4-Chloroaniline		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
2,6-Dichlorophenol		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
Hexachlorobutadiene		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
n-Nitroso-di-n-butylamine		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
4-Chloro-3-methylphenol		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
1-Methylnaphthalene		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
2-Methylnaphthalene		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
1,2,4,5-Tetrachlorobenzene		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
Hexachlorocyclopentadiene		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
2,4,6-Trichlorophenol		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
2-Chloronaphthalene		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
1-Chloronaphthalene		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
2-Nitroaniline		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
Dimethylphthalate		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
Acenaphthylene		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
2,6-Dinitrotoluene		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
Acenaphthene		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
4-Dinitrophenol		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
Dibenzofuran		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
Pentachlorobenzene		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
4-Nitrophenol		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
1-Naphthyamine		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
2,4-Dinitrotoluene		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
2-Naphthyamine		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
2,3,4,6-Tetrachlorophenol		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
Fluorene		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
Diethylphthalate		<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA													
4-Chlorophenyl-phenylether		<0.25	<0.25																			



TABLE 2.
Baker Petrolite Subsurface Investigation
Artesia, New Mexico Facility

LAB SAMPLE NUMBER SOIL BORING NUMBER	151785	151786	151787	151788	151789	151790	151791	151792	151793	151794	151795	151796	151797	151798	151799	151800	151801	151802	151803	151804	OF LEAKS, SPILLS, AND RELEASES Aug-93 mg/Kg	CONCENTRATIONS PROTECTIVE OF GROUNDWATER mg/Kg
	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6	SB-7	SB-8	SB-9	SB-10												
SAMPLE DEPTH	0'-1'	20'	0'-1'	20'	0'-1'	20'	0'-1'	20'	0'-1'	20'	0'-1'	20'	0'-1'	20'	0'-1'	20'	0'-1'	20'	0'-1'	20'		
Phenanthrene	2.45	<0.25	<0.25	NA	<0.25	<0.25	NA	NA		270.07												
Anthracene	0.68	<0.25	<0.25	NA	<0.25	<0.25	NA	NA		4499.81												
Di-n-butylphthalate	<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA		1247.59												
Fluoranthene	2.41	<0.25	<0.25	NA	<0.25	<0.25	NA	NA		1301.71												
Benzidine	<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA		7.48												
Pyrene	2.29	<0.25	<0.25	NA	<0.25	<0.25	NA	NA		25.68												
p-Dimethylaminooazobenzene	<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA		4.74												
Butylbenzylphthalate	<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA		3.74												
Benzo(a)anthracene	1.44	<0.25	<0.25	NA	<0.25	<0.25	NA	NA		3.74												
3,3-Dichlorobenzidine	<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA		25.68												
Chrysene	1.87	<0.25	<0.25	NA	<0.25	<0.25	NA	NA		810.27												
bis(2-ethylhexyl)phthalate	<0.25	<0.25	<0.25	NA	<0.25	0.36	NA	NA		4.74												
Di-n-octylphthalate	<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA		25.68												
Benzo(b)fluoranthene	1.15	<0.25	<0.25	NA	<0.25	<0.25	NA	NA		25.68												
7,12-Dimethylbenz(a)anthracene	<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA		4.74												
Benzo(k)fluoranthene	0.9	<0.25	<0.25	NA	<0.25	<0.25	NA	NA		25.68												
Benzo(a)pyrene	1.33	<0.25	<0.25	NA	<0.25	<0.25	NA	NA		25.68												
3-Methylcholanthrene	<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA		4.74												
Benzo(a,j)acridine	<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	NA		3.74												
Indeno(1,2,3-cd)pyrene	0.95	<0.25	<0.25	NA	<0.25	<0.25	NA	NA		3.74												
Dibenz(a,h)anthracene	0.34	<0.25	<0.25	NA	<0.25	<0.25	NA	NA		25.68												
Benzo(g,h,i)perylene	0.82	<0.25	<0.25	NA	<0.25	<0.25	NA	NA		25.68												

TOTAL METALS

TOTAL PETROLEUM HYDROCARBONS

Analytical Method 8015

STEIN CONCRETE ATTOMAN

BTEX CONCENTRATIONS																			
Analytical Method 8021B BTEX	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	NA	NA	NA	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	NA	NA	<0.05	<0.05
Toluene	NA	NA	NA	<0.05	0.061	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	NA	NA	<0.05	<0.05
Ethylbenzene	NA	NA	NA	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	NA	NA	<0.05	<0.05
m,p,o-Xylenes	NA	NA	NA	<0.05	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	NA	NA	<0.05	<0.05
Total BTEX	NA	NA	NA	<0.05	0.134	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	NA	NA	<0.05	<0.05

NOTES

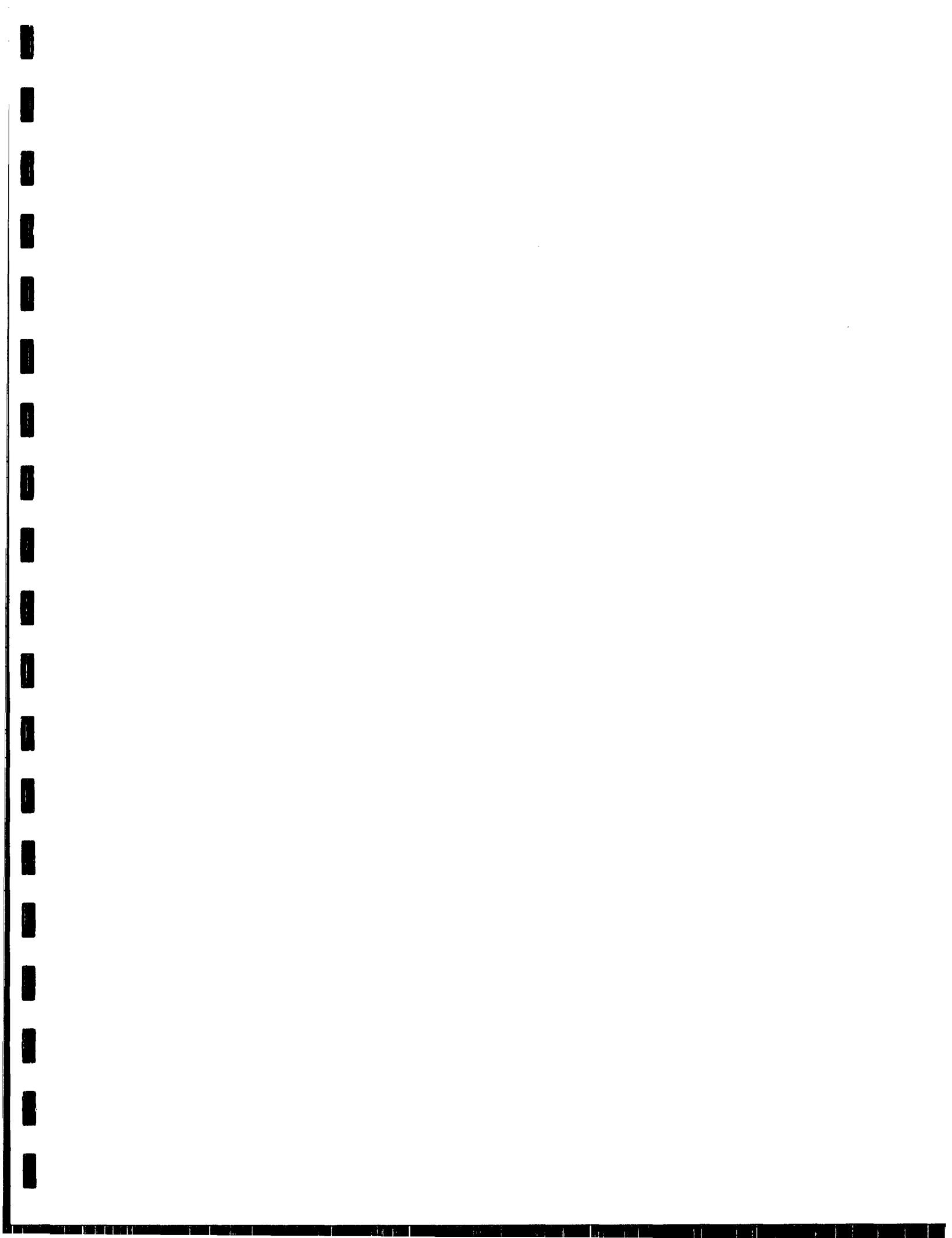
All analytical results are in mg/Kg (ppm) except where noted otherwise.

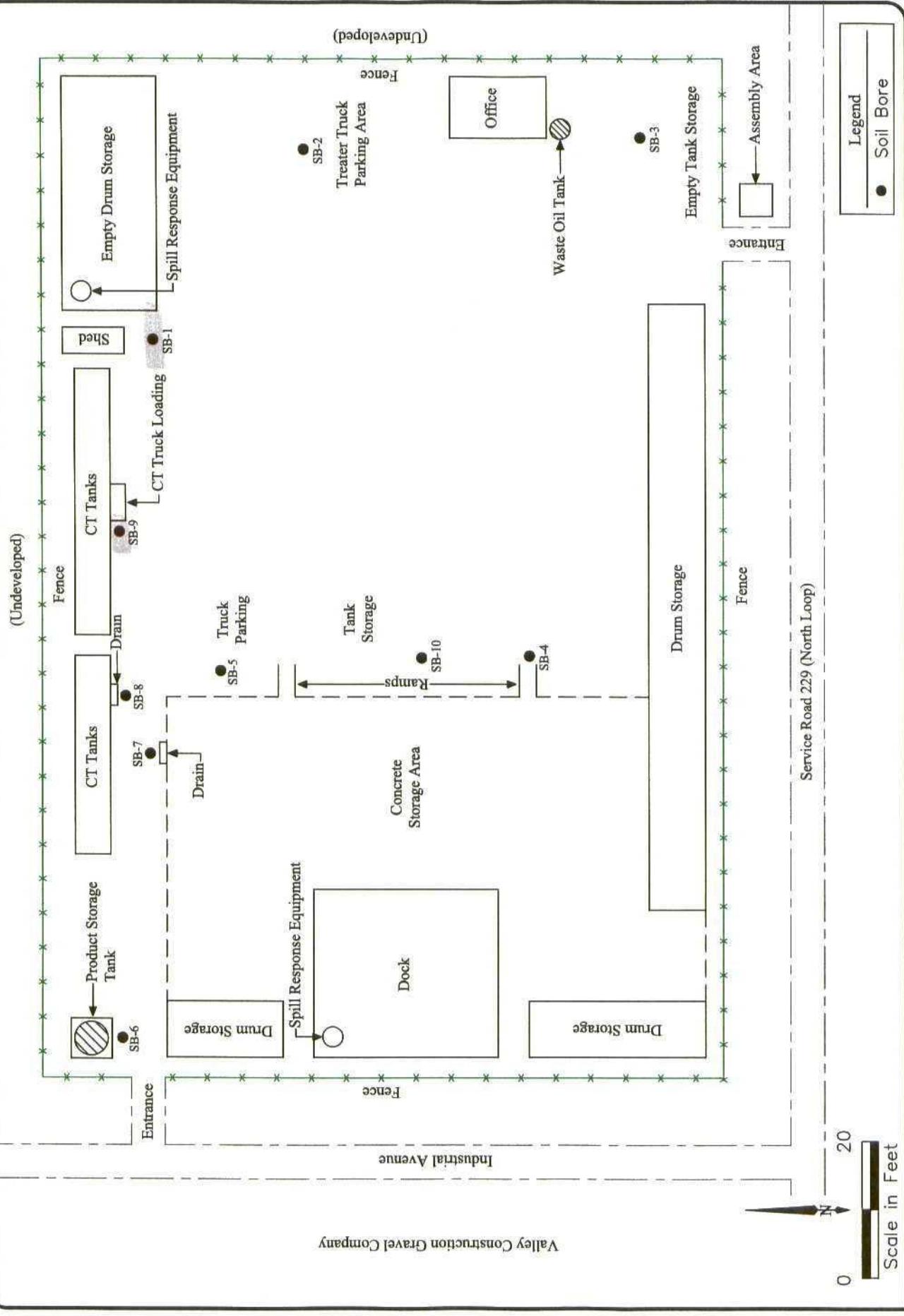
All analytical results are in mg/Kg (ppm) except where noted otherwise. ND = Parameter not detected at laboratory limit of quantification.

ND = Parameters no.

NA = Not analyzed

*** GW <100 ft bgs





Valley Construction Gravel Company

A scale bar consisting of a horizontal line with arrows at both ends, labeled "20" above it, and a vertical line segment below it.



Llano-Permian Environmental Services

Date: 09/19/00
Drawing: Bak002p
By: PMJ

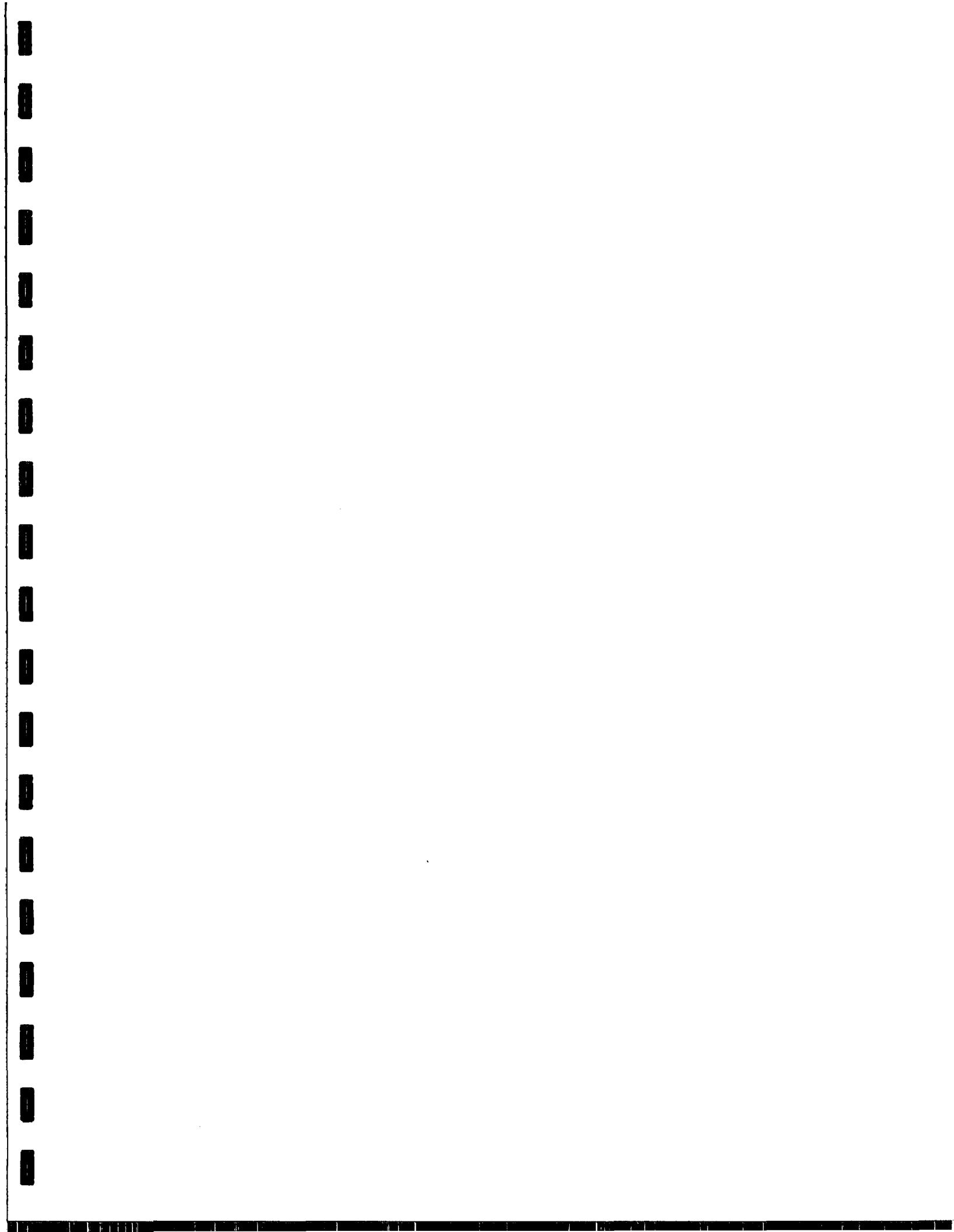
Date: 09/19/00 Drawing: Bak0002dro1

Date: 09/19/00 Drawing: Bnk0002D001

Date: 09/19/00 Drawing: Bnk0002D001

BAKER PETROLITE
& S. R. 229 (North Loop)
Subsurface Investigation

BAKER PETROLIEUM S. R. 229 (North Loop), Artesia, N. M.



TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944

Sampling Date: 08/17/00
Sample Condition: I & C
Sample Received by: MS
Project Name: Subsurface Investigation

September 13, 2000
Receiving Date: 08/19/00
Sample Type: Soil
Project No: BPC
Project Location: Artesia, New Mexico

ANALYTICAL RESULTS FOR
LLANO - PERMIAN ENVIRONMENTAL
Attention: Bo Vizcarino
1031 Andrews Hwy. Suite 115
Midland, TX 79701

E-Mail: lab@traceanalysis.com

TA#	Field Code	TOTAL														
		As	(mg/kg)	Ba	(mg/kg)	Cd	(mg/kg)	Cr	(mg/kg)	Pb	(mg/kg)	Se	(mg/kg)	Ag	(mg/kg)	Hg
T151801	SB-9 0'	<5.0		83		<2.0		<5.0		21		<5.0		<2.0		<0.19
T151802	SB-9 20'	<5.0		400		<2.0		7.5		5.0		<5.0		<2.0		<0.19
ICV		2.58		5.15		0.51		1.01		2.56		2.67		0.49		0.00527
CCV		2.65		5.28		0.52		1.05		2.64		2.71		0.50		0.00591
Reporting Limit		5.0		5.0		2.0		5.0		5.0		5.0		2.0		0.19
RPD		2		1		0		3		5		1		0		4
% Extraction Accuracy		90		88		80		92		88		80		80		106
% Instrument Accuracy		106		106		104		105		106		108		100		105
Prep Date:		09/07/00		09/07/00		09/07/00		09/07/00		09/07/00		09/07/00		09/07/00		09/12/00
Analysis Date:		09/08/00		09/08/00		09/08/00		09/08/00		09/08/00		09/08/00		09/08/00		09/12/00

METHODS: EPA SW-846 6010B, 3050B, 7471A
CHEMIST: TOTAL METALS: RR Hg: MS
TOTAL METAL SPIKE: Cd, Ag 20 mg/kg; Cr 40 mg/kg; As, Pb, Se 100 mg/kg; Ba 200 mg/kg; Hg SPIKE: 2.5 mg/kg
TOTAL METAL CV: Cd, Ag 0.50 mg/L; Cr 1.0 mg/L; As, Pb, Se 2.5 mg/L; Ba 5.0 mg/L; Hg CV: 0.005 μ

Director, Dr. Blair Leftwich

Date

5-13-00

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Bo Vizcarino
Llano Permian Environmental
1031 Andrews Hwy, Ste. 115
Midland, TX 79701

Report Date: September 5, 2000

Order ID Number: A00082115

Project Number: BPC
Project Name: Subsurface Investigation
Project Location: Artesia,NM

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
151785	SB-1 0-1	Soil	8/17/00	11:15	8/19/00
151786	SB-1 20	Soil	8/17/00	11:20	8/19/00
151787	SB-2 0-1	Soil	8/17/00	10:20	8/19/00
151801	SB-9 0-1'	Soil	8/17/00	11:45	8/19/00
151802	SB-9 20'	Soil	8/17/00	11:48	8/19/00

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.



Dr. Blair Leftwich, Director

Analytical and Quality Control Report

Sample: 151785 - SB-1 0-1

Analysis: 8270 Analytical Method: S 8270C QC Batch: QC04421 Date Analyzed: 8/22/00
Analyst: MA Preparation Method: E 3510C Prep Batch: PB03854 Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
Pyridine		<0.25	mg/Kg	1	0.25
n-Nitrosodimethylamine		<0.25	mg/Kg	1	0.25
2-Picoline		<0.25	mg/Kg	1	0.25
Methyl methanesulfonate		<0.25	mg/Kg	1	0.25
Ethyl methanesulfonate		<0.25	mg/Kg	1	0.25
Phenol		<0.25	mg/Kg	1	0.25
Aniline		<0.25	mg/Kg	1	0.25
bis (2-chloroethyl) ether		<0.25	mg/Kg	1	0.25
2-Chlorophenol		<0.25	mg/Kg	1	0.25
1,3-Dichlorobenzene		<0.25	mg/Kg	1	0.25
1,4-Dichlorobenzene		<0.25	mg/Kg	1	0.25
Benzyl alcohol		<0.25	mg/Kg	1	0.25
1,2-Dichlorobenzene		<0.25	mg/Kg	1	0.25
2-Methylphenol		<0.25	mg/Kg	1	0.25
bis (2-chloroisopropyl) ether		<0.25	mg/Kg	1	0.25
4-Methylphenol/3-Methylphenol		<0.25	mg/Kg	1	0.25
Acetophenone		<0.25	mg/Kg	1	0.25
n-Nitrosodi-n-propylamine		<0.25	mg/Kg	1	0.25
Hexachloroethane		<0.25	mg/Kg	1	0.25
Nitrobenzene		<0.25	mg/Kg	1	0.25
n-Nitrosopiperidine		<0.25	mg/Kg	1	0.25
Isophorone		<0.25	mg/Kg	1	0.25
2-Nitrophenol		<0.25	mg/Kg	1	0.25
2,4-Dimethylphenol		<0.25	mg/Kg	1	0.25
bis (2-chloroethoxy) methane		<0.25	mg/Kg	1	0.25
Benzoic acid		<0.25	mg/Kg	1	0.25
2,4-Dichlorophenol		<0.25	mg/Kg	1	0.25
1,2,4-Trichlorobenzene		<0.25	mg/Kg	1	0.25
a,a-Dimethylphenethylamine		<0.25	mg/Kg	1	0.25
Naphthalene		<0.25	mg/Kg	1	0.25
4-Chloroaniline		<0.25	mg/Kg	1	0.25
2,6-Dichlorophenol		<0.25	mg/Kg	1	0.25
Hexachlorobutadiene		<0.25	mg/Kg	1	0.25
n-Nitroso-di-n-butylamine		<0.25	mg/Kg	1	0.25
4-Chloro-3-methylphenol		<0.25	mg/Kg	1	0.25
1-Methylnaphthalene		<0.25	mg/Kg	1	0.25
2-Methylnaphthalene		<0.25	mg/Kg	1	0.25
1,2,4,5-Tetrachlorobenzene		<0.25	mg/Kg	1	0.25
Hexachlorocyclopentadiene		<0.25	mg/Kg	1	0.25
2,4,6-Trichlorophenol		<0.25	mg/Kg	1	0.25
2,4,5-Trichlorophenol		<0.25	mg/Kg	1	0.25
2-Chloronaphthalene		<0.25	mg/Kg	1	0.25
1-Chloronaphthalene		<0.25	mg/Kg	1	0.25
2-Nitroaniline		<0.25	mg/Kg	1	0.25
Dimethylphthalate		<0.25	mg/Kg	1	0.25

Continued ...

...Continued Sample: 151785 Analysis: 8270

Param	Flag	Result	Units	Dilution	RDL
Acenaphthylene		<0.25	mg/Kg	1	0.25
2,6-Dinitrotoluene		<0.25	mg/Kg	1	0.25
3-Nitroaniline		<0.25	mg/Kg	1	0.25
Acenaphthene		<0.25	mg/Kg	1	0.25
2,4-Dinitrophenol		<0.25	mg/Kg	1	0.25
Dibenzofuran		<0.25	mg/Kg	1	0.25
Pentachlorobenzene		<0.25	mg/Kg	1	0.25
4-Nitrophenol		<0.25	mg/Kg	1	0.25
1-Naphthylamine		<0.25	mg/Kg	1	0.25
2,4-Dinitrotoluene		<0.25	mg/Kg	1	0.25
2-Naphthylamine		<0.25	mg/Kg	1	0.25
2,3,4,6-Tetrachlorophenol		<0.25	mg/Kg	1	0.25
Fluorene		<0.25	mg/Kg	1	0.25
Diethylphthalate		<0.25	mg/Kg	1	0.25
4-Chlorophenyl-phenylether		<0.25	mg/Kg	1	0.25
4-Nitroaniline		<0.25	mg/Kg	1	0.25
4,6-Dinitro-2-methylphenol		<0.25	mg/Kg	1	0.25
Diphenylamine		<0.25	mg/Kg	1	0.25
Diphenylhydrazine		<0.25	mg/Kg	1	0.25
4-Bromophenyl-phenylether		<0.25	mg/Kg	1	0.25
Phenacetin		<0.25	mg/Kg	1	0.25
Hexachlorobenzene		<0.25	mg/Kg	1	0.25
4-Aminobiphenyl		<0.25	mg/Kg	1	0.25
Pentachlorophenol		<0.25	mg/Kg	1	0.25
Pentachloronitrobenzene		<0.25	mg/Kg	1	0.25
Pronamide		<0.25	mg/Kg	1	0.25
Phenanthrene		2.45	mg/Kg	1	0.25
Anthracene		0.68	mg/Kg	1	0.25
Di-n-butylphthalate		<0.25	mg/Kg	1	0.25
Fluoranthene		2.41	mg/Kg	1	0.25
Benzidine		<0.25	mg/Kg	1	0.25
Pyrene		2.29	mg/Kg	1	0.25
p-Dimethylaminoazobenzene		<0.25	mg/Kg	1	0.25
Butylbenzylphthalate		<0.25	mg/Kg	1	0.25
Benzo(a)anthracene		1.44	mg/Kg	1	0.25
3,3-Dichlorobenzidine		<0.25	mg/Kg	1	0.25
Chrysene		1.87	mg/Kg	1	0.25
Bis (2-ethylhexyl) phthalate		<0.25	mg/Kg	1	0.25
Di-n-octylphthalate		<0.25	mg/Kg	1	0.25
Benzo(b)fluoranthene		1.15	mg/Kg	1	0.25
7,12-Dimethylbenz(a)anthracene		<0.25	mg/Kg	1	0.25
Benzo(k)fluoranthene		0.90	mg/Kg	1	0.25
Benzo(a)pyrene		1.33	mg/Kg	1	0.25
3-Methylcholanthrene		<0.25	mg/Kg	1	0.25
Dibenzo(a,j)acridine		<0.25	mg/Kg	1	0.25
Indeno(1,2,3-cd)pyrene		0.95	mg/Kg	1	0.25
Dibenzo(a,h)anthracene		0.34	mg/Kg	1	0.25
Benzo(g,h,i)perylene		0.82	mg/Kg	1	0.25

Sample: 151786 - SB-1 20

Analysis: 8270 Analytical Method: S 8270C QC Batch: QC04421 Date Analyzed: 8/22/00
Analyst: MA Preparation Method: E 3510C Prep Batch: PB03854 Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
Pyridine		<0.25	mg/Kg	1	0.25
n-Nitrosodimethylamine		<0.25	mg/Kg	1	0.25
2-Picoline		<0.25	mg/Kg	1	0.25
Methyl methanesulfonate		<0.25	mg/Kg	1	0.25
Ethyl methanesulfonate		<0.25	mg/Kg	1	0.25
Phenol		<0.25	mg/Kg	1	0.25
Aniline		<0.25	mg/Kg	1	0.25
bis (2-chloroethyl) ether		<0.25	mg/Kg	1	0.25
2-Chlorophenol		<0.25	mg/Kg	1	0.25
1,3-Dichlorobenzene		<0.25	mg/Kg	1	0.25
1,4-Dichlorobenzene		<0.25	mg/Kg	1	0.25
Benzyl alcohol		<0.25	mg/Kg	1	0.25
1,2-Dichlorobenzene		<0.25	mg/Kg	1	0.25
2-Methylphenol		<0.25	mg/Kg	1	0.25
bis (2-chloroisopropyl) ether		<0.25	mg/Kg	1	0.25
4-Methylphenol/3-Methylphenol		<0.25	mg/Kg	1	0.25
Acetophenone		<0.25	mg/Kg	1	0.25
n-Nitrosodi-n-propylamine		<0.25	mg/Kg	1	0.25
Hexachloroethane		<0.25	mg/Kg	1	0.25
Nitrobenzene		<0.25	mg/Kg	1	0.25
n-Nitrosopiperidine		<0.25	mg/Kg	1	0.25
Isophorone		<0.25	mg/Kg	1	0.25
2-Nitrophenol		<0.25	mg/Kg	1	0.25
2,4-Dimethylphenol		<0.25	mg/Kg	1	0.25
bis (2-chloroethoxy) methane		<0.25	mg/Kg	1	0.25
Benzoic acid		<0.25	mg/Kg	1	0.25
2,4-Dichlorophenol		<0.25	mg/Kg	1	0.25
1,2,4-Trichlorobenzene		<0.25	mg/Kg	1	0.25
a,a-Dimethylphenethylamine		<0.25	mg/Kg	1	0.25
Naphthalene		<0.25	mg/Kg	1	0.25
4-Chloroaniline		<0.25	mg/Kg	1	0.25
2,6-Dichlorophenol		<0.25	mg/Kg	1	0.25
Hexachlorobutadiene		<0.25	mg/Kg	1	0.25
n-Nitroso-di-n-butylamine		<0.25	mg/Kg	1	0.25
4-Chloro-3-methylphenol		<0.25	mg/Kg	1	0.25
1-Methylnaphthalene		<0.25	mg/Kg	1	0.25
2-Methylnaphthalene		<0.25	mg/Kg	1	0.25
1,2,4,5-Tetrachlorobenzene		<0.25	mg/Kg	1	0.25
Hexachlorocyclopentadiene		<0.25	mg/Kg	1	0.25
2,4,6-Trichlorophenol		<0.25	mg/Kg	1	0.25
2,4,5-Trichlorophenol		<0.25	mg/Kg	1	0.25
2-Chloronaphthalene		<0.25	mg/Kg	1	0.25
1-Chloronaphthalene		<0.25	mg/Kg	1	0.25
2-Nitroaniline		<0.25	mg/Kg	1	0.25
Dimethylphthalate		<0.25	mg/Kg	1	0.25
Acenaphthylene		<0.25	mg/Kg	1	0.25
2,6-Dinitrotoluene		<0.25	mg/Kg	1	0.25
3-Nitroaniline		<0.25	mg/Kg	1	0.25

Continued ...

...Continued Sample: 151786 Analysis: 8270

Param	Flag	Result	Units	Dilution	RDL
Acenaphthene		<0.25	mg/Kg	1	0.25
2,4-Dinitrophenol		<0.25	mg/Kg	1	0.25
Dibenzofuran		<0.25	mg/Kg	1	0.25
Pentachlorobenzene		<0.25	mg/Kg	1	0.25
4-Nitrophenol		<0.25	mg/Kg	1	0.25
1-Naphthylamine		<0.25	mg/Kg	1	0.25
2,4-Dinitrotoluene		<0.25	mg/Kg	1	0.25
2-Naphthylamine		<0.25	mg/Kg	1	0.25
2,3,4,6-Tetrachlorophenol		<0.25	mg/Kg	1	0.25
Fluorene		<0.25	mg/Kg	1	0.25
Diethylphthalate		<0.25	mg/Kg	1	0.25
4-Chlorophenyl-phenylether		<0.25	mg/Kg	1	0.25
4-Nitroaniline		<0.25	mg/Kg	1	0.25
4,6-Dinitro-2-methylphenol		<0.25	mg/Kg	1	0.25
Diphenylamine		<0.25	mg/Kg	1	0.25
Diphenylhydrazine		<0.25	mg/Kg	1	0.25
4-Bromophenyl-phenylether		<0.25	mg/Kg	1	0.25
Phenacetin		<0.25	mg/Kg	1	0.25
Hexachlorobenzene		<0.25	mg/Kg	1	0.25
4-Aminobiphenyl		<0.25	mg/Kg	1	0.25
Pentachlorophenol		<0.25	mg/Kg	1	0.25
Pentachloronitrobenzene		<0.25	mg/Kg	1	0.25
Pronamide		<0.25	mg/Kg	1	0.25
Phenanthrene		<0.25	mg/Kg	1	0.25
Anthracene		<0.25	mg/Kg	1	0.25
Di-n-butylphthalate		<0.25	mg/Kg	1	0.25
Fluoranthene		<0.25	mg/Kg	1	0.25
Benzidine		<0.25	mg/Kg	1	0.25
Pyrene		<0.25	mg/Kg	1	0.25
p-Dimethylaminoazobenzene		<0.25	mg/Kg	1	0.25
Butylbenzylphthalate		<0.25	mg/Kg	1	0.25
Benzo(a)anthracene		<0.25	mg/Kg	1	0.25
3,3-Dichlorobenzidine		<0.25	mg/Kg	1	0.25
Chrysene		<0.25	mg/Kg	1	0.25
Bis (2-ethylhexyl) phthalate		<0.25	mg/Kg	1	0.25
Di-n-octylphthalate		<0.25	mg/Kg	1	0.25
Benzo(b)fluoranthene		<0.25	mg/Kg	1	0.25
7,12-Dimethylbenz(a)anthracene		<0.25	mg/Kg	1	0.25
Benzo(k)fluoranthene		<0.25	mg/Kg	1	0.25
Benzo(a)pyrene		<0.25	mg/Kg	1	0.25
3-Methylcholanthrene		<0.25	mg/Kg	1	0.25
Dibenzo(a,j)acridine		<0.25	mg/Kg	1	0.25
Indeno(1,2,3-cd)pyrene		<0.25	mg/Kg	1	0.25
Dibenzo(a,h)anthracene		<0.25	mg/Kg	1	0.25
Benzo(g,h,i)perylene		<0.25	mg/Kg	1	0.25

Sample: 151787 - SB-2 0-1

Analysis: 8270 Analytical Method: S 8270C QC Batch: QC04421 Date Analyzed: 8/22/00
Analyst: MA Preparation Method: E 3510C Prep Batch: PB03854 Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
Pyridine		<0.25	mg/Kg	1	0.25
n-Nitrosodimethylamine		<0.25	mg/Kg	1	0.25
2-Picoline		<0.25	mg/Kg	1	0.25
Methyl methanesulfonate		<0.25	mg/Kg	1	0.25
Ethyl methanesulfonate		<0.25	mg/Kg	1	0.25
Phenol		<0.25	mg/Kg	1	0.25
Aniline		<0.25	mg/Kg	1	0.25
bis (2-chloroethyl) ether		<0.25	mg/Kg	1	0.25
2-Chlorophenol		<0.25	mg/Kg	1	0.25
1,3-Dichlorobenzene		<0.25	mg/Kg	1	0.25
1,4-Dichlorobenzene		<0.25	mg/Kg	1	0.25
Benzyl alcohol		<0.25	mg/Kg	1	0.25
1,2-Dichlorobenzene		<0.25	mg/Kg	1	0.25
2-Methylphenol		<0.25	mg/Kg	1	0.25
bis (2-chloroisopropyl) ether		<0.25	mg/Kg	1	0.25
4-Methylphenol/3-Methylphenol		<0.25	mg/Kg	1	0.25
Acetophenone		<0.25	mg/Kg	1	0.25
n-Nitrosodi-n-propylamine		<0.25	mg/Kg	1	0.25
Hexachloroethane		<0.25	mg/Kg	1	0.25
Nitrobenzene		<0.25	mg/Kg	1	0.25
n-Nitrosopiperidine		<0.25	mg/Kg	1	0.25
Isophorone		<0.25	mg/Kg	1	0.25
2-Nitrophenol		<0.25	mg/Kg	1	0.25
2,4-Dimethylphenol		<0.25	mg/Kg	1	0.25
bis (2-chloroethoxy) methane		<0.25	mg/Kg	1	0.25
Benzoic acid		<0.25	mg/Kg	1	0.25
2,4-Dichlorophenol		<0.25	mg/Kg	1	0.25
1,2,4-Trichlorobenzene		<0.25	mg/Kg	1	0.25
a,a-Dimethylphenethylamine		<0.25	mg/Kg	1	0.25
Naphthalene		<0.25	mg/Kg	1	0.25
4-Chloroaniline		<0.25	mg/Kg	1	0.25
2,6-Dichlorophenol		<0.25	mg/Kg	1	0.25
Hexachlorobutadiene		<0.25	mg/Kg	1	0.25
n-Nitroso-di-n-butylamine		<0.25	mg/Kg	1	0.25
4-Chloro-3-methylphenol		<0.25	mg/Kg	1	0.25
1-Methylnaphthalene		<0.25	mg/Kg	1	0.25
2-Methylnaphthalene		<0.25	mg/Kg	1	0.25
1,2,4,5-Tetrachlorobenzene		<0.25	mg/Kg	1	0.25
Hexachlorocyclopentadiene		<0.25	mg/Kg	1	0.25
2,4,6-Trichlorophenol		<0.25	mg/Kg	1	0.25
2,4,5-Trichlorophenol		<0.25	mg/Kg	1	0.25
2-Chloronaphthalene		<0.25	mg/Kg	1	0.25
1-Chloronaphthalene		<0.25	mg/Kg	1	0.25
2-Nitroaniline		<0.25	mg/Kg	1	0.25
Dimethylphthalate		<0.25	mg/Kg	1	0.25
Acenaphthylene		<0.25	mg/Kg	1	0.25
2,6-Dinitrotoluene		<0.25	mg/Kg	1	0.25
3-Nitroaniline		<0.25	mg/Kg	1	0.25
Acenaphthene		<0.25	mg/Kg	1	0.25
2,4-Dinitrophenol		<0.25	mg/Kg	1	0.25
Dibenzofuran		<0.25	mg/Kg	1	0.25
Pentachlorobenzene		<0.25	mg/Kg	1	0.25

Continued ...

...Continued Sample: 151787 Analysis: 8270

Param	Flag	Result	Units	Dilution	RDL
4-Nitrophenol		<0.25	mg/Kg	1	0.25
1-Naphthylamine		<0.25	mg/Kg	1	0.25
2,4-Dinitrotoluene		<0.25	mg/Kg	1	0.25
2-Naphthylamine		<0.25	mg/Kg	1	0.25
2,3,4,6-Tetrachlorophenol		<0.25	mg/Kg	1	0.25
Fluorene		<0.25	mg/Kg	1	0.25
Diethylphthalate		<0.25	mg/Kg	1	0.25
4-Chlorophenyl-phenylether		<0.25	mg/Kg	1	0.25
4-Nitroaniline		<0.25	mg/Kg	1	0.25
4,6-Dinitro-2-methylphenol		<0.25	mg/Kg	1	0.25
Diphenylamine		<0.25	mg/Kg	1	0.25
Diphenylhydrazine		<0.25	mg/Kg	1	0.25
4-Bromophenyl-phenylether		<0.25	mg/Kg	1	0.25
Phenacetin		<0.25	mg/Kg	1	0.25
Hexachlorobenzene		<0.25	mg/Kg	1	0.25
4-Aminobiphenyl		<0.25	mg/Kg	1	0.25
Pentachlorophenol		<0.25	mg/Kg	1	0.25
Pentachloronitrobenzene		<0.25	mg/Kg	1	0.25
Pronamide		<0.25	mg/Kg	1	0.25
Phenanthrone		<0.25	mg/Kg	1	0.25
Anthracene		<0.25	mg/Kg	1	0.25
Di-n-butylphthalate		<0.25	mg/Kg	1	0.25
Fluoranthene		<0.25	mg/Kg	1	0.25
Benzidine		<0.25	mg/Kg	1	0.25
Pyrene		<0.25	mg/Kg	1	0.25
p-Dimethylaminoazobenzene		<0.25	mg/Kg	1	0.25
Butylbenzylphthalate		<0.25	mg/Kg	1	0.25
Benzo(a)anthracene		<0.25	mg/Kg	1	0.25
3,3-Dichlorobenzidine		<0.25	mg/Kg	1	0.25
Chrysene		<0.25	mg/Kg	1	0.25
Bis (2-ethylhexyl) phthalate		<0.25	mg/Kg	1	0.25
Di-n-octylphthalate		<0.25	mg/Kg	1	0.25
Benzo(b)fluoranthene		<0.25	mg/Kg	1	0.25
7,12-Dimethylbenz(a)anthracene		<0.25	mg/Kg	1	0.25
Benzo(k)fluoranthene		<0.25	mg/Kg	1	0.25
Benzo(a)pyrene		<0.25	mg/Kg	1	0.25
3-Methylcholanthrene		<0.25	mg/Kg	1	0.25
Dibenzo(a,j)acridine		<0.25	mg/Kg	1	0.25
Indeno(1,2,3-cd)pyrene		<0.25	mg/Kg	1	0.25
Dibenzo(a,h)anthracene		<0.25	mg/Kg	1	0.25
Benzo(g,h,i)perylene		<0.25	mg/Kg	1	0.25

Sample: 151801 - SB-9 0-1'

Analysis: 8270	Analytical Method: S 8270C	QC Batch: QC04421	Date Analyzed: 8/22/00
Analyst: MA	Preparation Method: E 3510C	Prep Batch: PB03854	Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
Pyridine		<0.25	mg/Kg	1	0.25
n-Nitrosodimethylamine		<0.25	mg/Kg	1	0.25
2-Picoline		<0.25	mg/Kg	1	0.25

Continued ...

...Continued Sample: 151801 Analysis: 8270

Param	Flag	Result	Units	Dilution	RDL
Methyl methanesulfonate		<0.25	mg/Kg	1	0.25
Ethyl methanesulfonate		<0.25	mg/Kg	1	0.25
Phenol		<0.25	mg/Kg	1	0.25
Aniline		<0.25	mg/Kg	1	0.25
bis (2-chloroethyl) ether		<0.25	mg/Kg	1	0.25
2-Chlorophenol		<0.25	mg/Kg	1	0.25
1,3-Dichlorobenzene		<0.25	mg/Kg	1	0.25
1,4-Dichlorobenzene		<0.25	mg/Kg	1	0.25
Benzyl alcohol		<0.25	mg/Kg	1	0.25
1,2-Dichlorobenzene		<0.25	mg/Kg	1	0.25
2-Methylphenol		<0.25	mg/Kg	1	0.25
bis (2-chloroisopropyl) ether		<0.25	mg/Kg	1	0.25
4-Methylphenol/3-Methylphenol		<0.25	mg/Kg	1	0.25
Acetophenone		<0.25	mg/Kg	1	0.25
n-Nitrosodi-n-propylamine		<0.25	mg/Kg	1	0.25
Hexachloroethane		<0.25	mg/Kg	1	0.25
Nitrobenzene		<0.25	mg/Kg	1	0.25
n-Nitrosopiperidine		<0.25	mg/Kg	1	0.25
Isophorone		<0.25	mg/Kg	1	0.25
2-Nitrophenol		<0.25	mg/Kg	1	0.25
2,4-Dimethylphenol		<0.25	mg/Kg	1	0.25
bis (2-chloroethoxy) methane		<0.25	mg/Kg	1	0.25
Benzoic acid		<0.25	mg/Kg	1	0.25
2,4-Dichlorophenol		<0.25	mg/Kg	1	0.25
1,2,4-Trichlorobenzene		<0.25	mg/Kg	1	0.25
a,a-Dimethylphenethylamine		<0.25	mg/Kg	1	0.25
Naphthalene		<0.25	mg/Kg	1	0.25
4-Chloroaniline		<0.25	mg/Kg	1	0.25
2,6-Dichlorophenol		<0.25	mg/Kg	1	0.25
Hexachlorobutadiene		<0.25	mg/Kg	1	0.25
n-Nitroso-di-n-butylamine		<0.25	mg/Kg	1	0.25
4-Chloro-3-methylphenol		<0.25	mg/Kg	1	0.25
1-Methylnaphthalene		<0.25	mg/Kg	1	0.25
2-Methylnaphthalene		<0.25	mg/Kg	1	0.25
1,2,4,5-Tetrachlorobenzene		<0.25	mg/Kg	1	0.25
Hexachlorocyclopentadiene		<0.25	mg/Kg	1	0.25
2,4,6-Trichlorophenol		<0.25	mg/Kg	1	0.25
2,4,5-Trichlorophenol		<0.25	mg/Kg	1	0.25
2-Chloronaphthalene		<0.25	mg/Kg	1	0.25
1-Chloronaphthalene		<0.25	mg/Kg	1	0.25
2-Nitroaniline		<0.25	mg/Kg	1	0.25
Dimethylphthalate		<0.25	mg/Kg	1	0.25
Acenaphthylene		<0.25	mg/Kg	1	0.25
2,6-Dinitrotoluene		<0.25	mg/Kg	1	0.25
3-Nitroaniline		<0.25	mg/Kg	1	0.25
Acenaphthene		<0.25	mg/Kg	1	0.25
2,4-Dinitrophenol		<0.25	mg/Kg	1	0.25
Dibenzofuran		<0.25	mg/Kg	1	0.25
Pentachlorobenzene		<0.25	mg/Kg	1	0.25
4-Nitrophenol		<0.25	mg/Kg	1	0.25
1-Naphthylamine		<0.25	mg/Kg	1	0.25

Continued ...

...Continued Sample: 151801 Analysis: 8270

Param	Flag	Result	Units	Dilution	RDL
2,4-Dinitrotoluene		<0.25	mg/Kg	1	0.25
2-Naphthylamine		<0.25	mg/Kg	1	0.25
2,3,4,6-Tetrachlorophenol		<0.25	mg/Kg	1	0.25
Fluorene		<0.25	mg/Kg	1	0.25
Diethylphthalate		<0.25	mg/Kg	1	0.25
4-Chlorophenyl-phenylether		<0.25	mg/Kg	1	0.25
4-Nitroaniline		<0.25	mg/Kg	1	0.25
4,6-Dinitro-2-methylphenol		<0.25	mg/Kg	1	0.25
Diphenylamine		<0.25	mg/Kg	1	0.25
Diphenylhydrazine		<0.25	mg/Kg	1	0.25
4-Bromophenyl-phenylether		<0.25	mg/Kg	1	0.25
Phenacetin		<0.25	mg/Kg	1	0.25
Hexachlorobenzene		<0.25	mg/Kg	1	0.25
4-Aminobiphenyl		<0.25	mg/Kg	1	0.25
Pentachlorophenol		<0.25	mg/Kg	1	0.25
Pentachloronitrobenzene		<0.25	mg/Kg	1	0.25
Pronamide		<0.25	mg/Kg	1	0.25
Phenanthrene		<0.25	mg/Kg	1	0.25
Anthracene		<0.25	mg/Kg	1	0.25
Di-n-butylphthalate		<0.25	mg/Kg	1	0.25
Fluoranthene		<0.25	mg/Kg	1	0.25
Benzidine		<0.25	mg/Kg	1	0.25
Pyrene		<0.25	mg/Kg	1	0.25
p-Dimethylaminoazobenzene		<0.25	mg/Kg	1	0.25
Butylbenzylphthalate		<0.25	mg/Kg	1	0.25
Benzo(a)anthracene		<0.25	mg/Kg	1	0.25
3,3-Dichlorobenzidine		<0.25	mg/Kg	1	0.25
Chrysene		<0.25	mg/Kg	1	0.25
Bis (2-ethylhexyl) phthalate		<0.25	mg/Kg	1	0.25
Di-n-octylphthalate		<0.25	mg/Kg	1	0.25
Benzo(b)fluoranthene		<0.25	mg/Kg	1	0.25
7,12-Dimethylbenz(a)anthracene		<0.25	mg/Kg	1	0.25
Benzo(k)fluoranthene		<0.25	mg/Kg	1	0.25
Benzo(a)pyrene		<0.25	mg/Kg	1	0.25
3-Methylcholanthrene		<0.25	mg/Kg	1	0.25
Dibenzo(a,j)acridine		<0.25	mg/Kg	1	0.25
Indeno(1,2,3-cd)pyrene		<0.25	mg/Kg	1	0.25
Dibenzo(a,h)anthracene		<0.25	mg/Kg	1	0.25
Benzo(g,h,i)perylene		<0.25	mg/Kg	1	0.25

Sample: 151802 - SB-9 20'

Analysis: 8270	Analytical Method: S 8270C	QC Batch: QC04421	Date Analyzed: 8/22/00
Analyst: MA	Preparation Method: E 3510C	Prep Batch: PB03854	Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
Pyridine		<0.25	mg/Kg	1	0.25
n-Nitrosodimethylamine		<0.25	mg/Kg	1	0.25
2-Picoline		<0.25	mg/Kg	1	0.25
Methyl methanesulfonate		<0.25	mg/Kg	1	0.25
Ethyl methanesulfonate		<0.25	mg/Kg	1	0.25

Continued ...

...Continued Sample: 151802 Analysis: 8270

Param	Flag	Result	Units	Dilution	RDL
Phenol		<0.25	mg/Kg	1	0.25
Aniline		<0.25	mg/Kg	1	0.25
bis (2-chloroethyl) ether		<0.25	mg/Kg	1	0.25
2-Chlorophenol		<0.25	mg/Kg	1	0.25
1,3-Dichlorobenzene		<0.25	mg/Kg	1	0.25
1,4-Dichlorobenzene		<0.25	mg/Kg	1	0.25
Benzyl alcohol		<0.25	mg/Kg	1	0.25
1,2-Dichlorobenzene		<0.25	mg/Kg	1	0.25
2-Methylphenol		<0.25	mg/Kg	1	0.25
bis (2-chloroisopropyl) ether		<0.25	mg/Kg	1	0.25
4-Methylphenol/3-Methylphenol		<0.25	mg/Kg	1	0.25
Acetophenone		<0.25	mg/Kg	1	0.25
n-Nitrosodi-n-propylamine		<0.25	mg/Kg	1	0.25
Hexachloroethane		<0.25	mg/Kg	1	0.25
Nitrobenzene		<0.25	mg/Kg	1	0.25
n-Nitrosopiperidine		<0.25	mg/Kg	1	0.25
Isophorone		<0.25	mg/Kg	1	0.25
2-Nitrophenol		<0.25	mg/Kg	1	0.25
2,4-Dimethylphenol		<0.25	mg/Kg	1	0.25
bis (2-chloroethoxy) methane		<0.25	mg/Kg	1	0.25
Benzoic acid		<0.25	mg/Kg	1	0.25
2,4-Dichlorophenol		<0.25	mg/Kg	1	0.25
1,2,4-Trichlorobenzene		<0.25	mg/Kg	1	0.25
a,a-Dimethylphenethylamine		<0.25	mg/Kg	1	0.25
Naphthalene		<0.25	mg/Kg	1	0.25
4-Chloroaniline		<0.25	mg/Kg	1	0.25
2,6-Dichlorophenol		<0.25	mg/Kg	1	0.25
Hexachlorobutadiene		<0.25	mg/Kg	1	0.25
n-Nitroso-di-n-butylamine		<0.25	mg/Kg	1	0.25
4-Chloro-3-methylphenol		<0.25	mg/Kg	1	0.25
1-Methylnaphthalene		<0.25	mg/Kg	1	0.25
2-Methylnaphthalene		<0.25	mg/Kg	1	0.25
1,2,4,5-Tetrachlorobenzene		<0.25	mg/Kg	1	0.25
Hexachlorocyclopentadiene		<0.25	mg/Kg	1	0.25
2,4,6-Trichlorophenol		<0.25	mg/Kg	1	0.25
2,4,5-Trichlorophenol		<0.25	mg/Kg	1	0.25
2-Chloronaphthalene		<0.25	mg/Kg	1	0.25
1-Chloronaphthalene		<0.25	mg/Kg	1	0.25
2-Nitroaniline		<0.25	mg/Kg	1	0.25
Dimethylphthalate		<0.25	mg/Kg	1	0.25
Acenaphthylene		<0.25	mg/Kg	1	0.25
2,6-Dinitrotoluene		<0.25	mg/Kg	1	0.25
3-Nitroaniline		<0.25	mg/Kg	1	0.25
Acenaphthene		<0.25	mg/Kg	1	0.25
2,4-Dinitrophenol		<0.25	mg/Kg	1	0.25
Dibenzofuran		<0.25	mg/Kg	1	0.25
Pentachlorobenzene		<0.25	mg/Kg	1	0.25
4-Nitrophenol		<0.25	mg/Kg	1	0.25
1-Naphthylamine		<0.25	mg/Kg	1	0.25
2,4-Dinitrotoluene		<0.25	mg/Kg	1	0.25
2-Naphthylamine		<0.25	mg/Kg	1	0.25

Continued ...

...Continued Sample: 151802 Analysis: 8270

Param	Flag	Result	Units	Dilution	RDL
2,3,4,6-Tetrachlorophenol		<0.25	mg/Kg	1	0.25
Fluorene		<0.25	mg/Kg	1	0.25
Diethylphthalate		<0.25	mg/Kg	1	0.25
4-Chlorophenyl-phenylether		<0.25	mg/Kg	1	0.25
4-Nitroaniline		<0.25	mg/Kg	1	0.25
4,6-Dinitro-2-methylphenol		<0.25	mg/Kg	1	0.25
Diphenylamine		<0.25	mg/Kg	1	0.25
Diphenylhydrazine		<0.25	mg/Kg	1	0.25
4-Bromophenyl-phenylether		<0.25	mg/Kg	1	0.25
Phenacetin		<0.25	mg/Kg	1	0.25
Hexachlorobenzene		<0.25	mg/Kg	1	0.25
4-Aminobiphenyl		<0.25	mg/Kg	1	0.25
Pentachlorophenol		<0.25	mg/Kg	1	0.25
Pentachloronitrobenzene		<0.25	mg/Kg	1	0.25
Pronamide		<0.25	mg/Kg	1	0.25
Phenanthrene		<0.25	mg/Kg	1	0.25
Anthracene		<0.25	mg/Kg	1	0.25
Di-n-butylphthalate		<0.25	mg/Kg	1	0.25
Fluoranthene		<0.25	mg/Kg	1	0.25
Benzidine		<0.25	mg/Kg	1	0.25
Pyrene		<0.25	mg/Kg	1	0.25
p-Dimethylaminoazobenzene		<0.25	mg/Kg	1	0.25
Butylbenzylphthalate		<0.25	mg/Kg	1	0.25
Benzo(a)anthracene		<0.25	mg/Kg	1	0.25
3,3-Dichlorobenzidine		<0.25	mg/Kg	1	0.25
Chrysene		<0.25	mg/Kg	1	0.25
Bis (2-ethylhexyl) phthalate		0.36	mg/Kg	1	0.25
Di-n-octylphthalate		<0.25	mg/Kg	1	0.25
Benzo(b)fluoranthene		<0.25	mg/Kg	1	0.25
7,12-Dimethylbenz(a)anthracene		<0.25	mg/Kg	1	0.25
Benzo(k)fluoranthene		<0.25	mg/Kg	1	0.25
Benzo(a)pyrene		<0.25	mg/Kg	1	0.25
3-Methylcholanthrene		<0.25	mg/Kg	1	0.25
Dibenzo(a,j)acridine		<0.25	mg/Kg	1	0.25
Indeno(1,2,3-cd)pyrene		<0.25	mg/Kg	1	0.25
Dibenzo(a,h)anthracene		<0.25	mg/Kg	1	0.25
Benzo(g,h,i)perylene		<0.25	mg/Kg	1	0.25

Quality Control Report Method Blank

Sample: Method Blank

QCBatch: QC04421

Param	Flag	Results	Units	Reporting Limit
Pyridine		<0.25	mg/Kg	0.25
n-Nitrosodimethylamine		<0.25	mg/Kg	0.25

Continued ...

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Param	Flag	Results	Units	Reporting Limit
2-Picoline		<0.25	mg/Kg	0.25
Methyl methanesulfonate		<0.25	mg/Kg	0.25
Ethyl methanesulfonate		<0.25	mg/Kg	0.25
Phenol		<0.25	mg/Kg	0.25
Aniline		<0.25	mg/Kg	0.25
bis (2-chloroethyl) ether		<0.25	mg/Kg	0.25
2-Chlorophenol		<0.25	mg/Kg	0.25
1,3-Dichlorobenzene		<0.25	mg/Kg	0.25
1,4-Dichlorobenzene		<0.25	mg/Kg	0.25
Benzyl alcohol		<0.25	mg/Kg	0.25
1,2-Dichlorobenzene		<0.25	mg/Kg	0.25
2-Methylphenol		<0.25	mg/Kg	0.25
bis (2-chloroisopropyl) ether		<0.25	mg/Kg	0.25
4-Methylphenol/3-Methylphenol		<0.25	mg/Kg	0.25
Acetophenone		<0.25	mg/Kg	0.25
n-Nitrosodi-n-propylamine		<0.25	mg/Kg	0.25
Hexachloroethane		<0.25	mg/Kg	0.25
Nitrobenzene		<0.25	mg/Kg	0.25
n-Nitrosopiperidine		<0.25	mg/Kg	0.25
Isophorone		<0.25	mg/Kg	0.25
2-Nitrophenol		<0.25	mg/Kg	0.25
2,4-Dimethylphenol		<0.25	mg/Kg	0.25
bis (2-chloroethoxy) methane		<0.25	mg/Kg	0.25
Benzoic acid		<0.25	mg/Kg	0.25
2,4-Dichlorophenol		<0.25	mg/Kg	0.25
1,2,4-Trichlorobenzene		<0.25	mg/Kg	0.25
a,a-Dimethylphenethylamine		<0.25	mg/Kg	0.25
Naphthalene		<0.25	mg/Kg	0.25
4-Chloroaniline		<0.25	mg/Kg	0.25
2,6-Dichlorophenol		<0.25	mg/Kg	0.25
Hexachlorobutadiene		<0.25	mg/Kg	0.25
n-Nitroso-di-n-butylamine		<0.25	mg/Kg	0.25
4-Chloro-3-methylphenol		<0.25	mg/Kg	0.25
1-Methylnaphthalene		<0.25	mg/Kg	0.25
2-Methylnaphthalene		<0.25	mg/Kg	0.25
1,2,4,5-Tetrachlorobenzene		<0.25	mg/Kg	0.25
Hexachlorocyclopentadiene		<0.25	mg/Kg	0.25
2,4,6-Trichlorophenol		<0.25	mg/Kg	0.25
2,4,5-Trichlorophenol		<0.25	mg/Kg	0.25
2-Chloronaphthalene		<0.25	mg/Kg	0.25
1-Chloronaphthalene		<0.25	mg/Kg	0.25
2-Nitroaniline		<0.25	mg/Kg	0.25
Dimethylphthalate		<0.25	mg/Kg	0.25
Acenaphthylene		<0.25	mg/Kg	0.25
2,6-Dinitrotoluene		<0.25	mg/Kg	0.25
3-Nitroaniline		<0.25	mg/Kg	0.25
Acenaphthene		<0.25	mg/Kg	0.25
2,4-Dinitrophenol		<0.25	mg/Kg	0.25
Dibenzofuran		<0.25	mg/Kg	0.25
Pentachlorobenzene		<0.25	mg/Kg	0.25

Continued ...

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Param	Flag	Results	Units	Reporting Limit
4-Nitrophenol		<0.25	mg/Kg	0.25
1-Naphthylamine		<0.25	mg/Kg	0.25
2,4-Dinitrotoluene		<0.25	mg/Kg	0.25
2-Naphthylamine		<0.25	mg/Kg	0.25
2,3,4,6-Tetrachlorophenol		<0.25	mg/Kg	0.25
Fluorene		<0.25	mg/Kg	0.25
Diethylphthalate		<0.25	mg/Kg	0.25
4-Chlorophenyl-phenylether		<0.25	mg/Kg	0.25
4-Nitroaniline		<0.25	mg/Kg	0.25
4,6-Dinitro-2-methylphenol		<0.25	mg/Kg	0.25
Diphenylamine		<0.25	mg/Kg	0.25
Diphenylhydrazine		<0.25	mg/Kg	0.25
4-Bromophenyl-phenylether		<0.25	mg/Kg	0.25
Phenacetin		<0.25	mg/Kg	0.25
Hexachlorobenzene		<0.25	mg/Kg	0.25
4-Aminobiphenyl		<0.25	mg/Kg	0.25
Pentachlorophenol		<0.25	mg/Kg	0.25
Pentachloronitrobenzene		<0.25	mg/Kg	0.25
Pronamide		<0.25	mg/Kg	0.25
Phenanthrene		<0.25	mg/Kg	0.25
Anthracene		<0.25	mg/Kg	0.25
Di-n-butylphthalate		<0.25	mg/Kg	0.25
Fluoranthene		<0.25	mg/Kg	0.25
Benzidine		<0.25	mg/Kg	0.25
Pyrene		<0.25	mg/Kg	0.25
p-Dimethylaminoazobenzene		<0.25	mg/Kg	0.25
Butylbenzylphthalate		<0.25	mg/Kg	0.25
Benzo(a)anthracene		<0.25	mg/Kg	0.25
3,3-Dichlorobenzidine		<0.25	mg/Kg	0.25
Chrysene		<0.25	mg/Kg	0.25
Bis (2-ethylhexyl) phthalate		<0.25	mg/Kg	0.25
Di-n-octylphthalate		<0.25	mg/Kg	0.25
Benzo(b)fluoranthene		<0.25	mg/Kg	0.25
7,12-Dimethylbenz(a)anthracene		<0.25	mg/Kg	0.25
Benzo(k)fluoranthene		<0.25	mg/Kg	0.25
Benzo(a)pyrene		<0.25	mg/Kg	0.25
3-Methylcholanthrene		<0.25	mg/Kg	0.25
Dibenzo(a,j)acridine		<0.25	mg/Kg	0.25
Indeno(1,2,3-cd)pyrene		<0.25	mg/Kg	0.25
Dibenzo(a,h)anthracene		<0.25	mg/Kg	0.25
Benzo(g,h,i)perylene		<0.25	mg/Kg	0.25

Quality Control Report Lab Control Spikes and Duplicate Spikes

Sample: LCS

QC Batch: QC04421

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	% Rec. Limit	RPD	RPD Limit
					Amount Added	Matrix Result				
Phenol		62.65	mg/Kg	1	80	<0.25	78	34 - 102	20	
2-Chlorophenol		63.92	mg/Kg	1	80	<0.25	79	37 - 100	20	
1,4-Dichlorobenzene		68.68	mg/Kg	1	80	<0.25	85	41 - 102	20	
n-Nitrosodi-n-propylamine		67.90	mg/Kg	1	80	<0.25	84	45 - 107	20	
1,2,4-Trichlorobenzene		72.95	mg/Kg	1	80	<0.25	91	39 - 103	20	
4-Chloro-3-methylphenol		64.24	mg/Kg	1	80	<0.25	80	46 - 113	20	
Acenaphthene		69.91	mg/Kg	1	80	<0.25	87	50 - 107	20	
4-Nitrophenol		63.01	mg/Kg	1	80	<0.25	78	0 - 152	20	
2,4-Dinitrotoluene		78.78	mg/Kg	1	80	<0.25	98	53 - 114	20	
Pentachlorophenol		31.43	mg/Kg	1	80	<0.25	39	0 - 121	20	
Pyrene		82.22	mg/Kg	1	80	<0.25	102	41 - 121	20	

Surrogate	Flag	Result	Units	Dil.	Spike		% Rec.	% Rec. Limit
					Amount	Result		
2-Fluorophenol		68.60	mg/Kg	1	80	85	22 - 103	
Phenol-d5		70.21	mg/Kg	1	80	87	32 - 112	
Nitrobenzene-d5		76.58	mg/Kg	1	80	95	45 - 111	
2-Fluorobiphenyl		74.23	mg/Kg	1	80	92	43 - 110	
2,4,6-Tribromophenol		77.50	mg/Kg	1	80	96	34 - 136	
Terphenyl-d14		83.20	mg/Kg	1	80	104	47 - 120	

Sample: LCSD QC Batch: QC04421

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	% Rec. Limit	RPD	RPD Limit
					Amount Added	Matrix Result				
Phenol		62.55	mg/Kg	1	80	<0.25	78	0	34 - 102	20
2-Chlorophenol		62.89	mg/Kg	1	80	<0.25	78	2	37 - 100	20
1,4-Dichlorobenzene		67.94	mg/Kg	1	80	<0.25	84	1	41 - 102	20
n-Nitrosodi-n-propylamine		69.46	mg/Kg	1	80	<0.25	86	2	45 - 107	20
1,2,4-Trichlorobenzene		72.23	mg/Kg	1	80	<0.25	90	1	39 - 103	20
4-Chloro-3-methylphenol		65.54	mg/Kg	1	80	<0.25	81	2	46 - 113	20
Acenaphthene		70.50	mg/Kg	1	80	<0.25	88	1	50 - 107	20
4-Nitrophenol		63.19	mg/Kg	1	80	<0.25	78	0	0 - 152	20
2,4-Dinitrotoluene		78.98	mg/Kg	1	80	<0.25	98	0	53 - 114	20
Pentachlorophenol		31.52	mg/Kg	1	80	<0.25	39	0	0 - 121	20
Pyrene		76.10	mg/Kg	1	80	<0.25	95	8	41 - 121	20

Surrogate	Flag	Result	Units	Dil.	Spike		% Rec.	% Rec. Limit
					Amount	Result		
2-Fluorophenol		67.03	mg/Kg	1	80	83	22 - 103	
Phenol-d5		69.68	mg/Kg	1	80	87	32 - 112	
Nitrobenzene-d5		76.16	mg/Kg	1	80	95	45 - 111	
2-Fluorobiphenyl		72.94	mg/Kg	1	80	91	43 - 110	
2,4,6-Tribromophenol		75.23	mg/Kg	1	80	94	34 - 136	
Terphenyl-d14		79.29	mg/Kg	1	80	99	47 - 120	

Quality Control Report

Matrix Spikes and Duplicate Spikes

Sample: MS QC Batch: QC04421

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	% Rec. Limit	RPD Limit
					Amount Added	Matrix Result			
Phenol		56.48	mg/Kg	1	80	<0.25	70	34 - 102	20
2-Chlorophenol		51.99	mg/Kg	1	80	<0.25	64	37 - 100	20
1,4-Dichlorobenzene		56.18	mg/Kg	1	80	<0.25	70	41 - 102	20
n-Nitrosodi-n-propylamine		61.79	mg/Kg	1	80	<0.25	77	45 - 107	20
1,2,4-Trichlorobenzene		59.59	mg/Kg	1	80	<0.25	74	39 - 103	20
4-Chloro-3-methylphenol		47.82	mg/Kg	1	80	<0.25	59	46 - 113	20
Acenaphthene		64.26	mg/Kg	1	80	<0.25	80	50 - 107	20
4-Nitrophenol	¹	<7.50	mg/Kg	1	80	<0.25	0	0 - 152	20
2,4-Dinitrotoluene		55.20	mg/Kg	1	80	<0.25	69	53 - 114	20
Pentachlorophenol	²	<7.50	mg/Kg	1	80	<0.25	0	0 - 121	20
Pyrene		50.90	mg/Kg	1	80	<0.25	63	41 - 121	20

Surrogate	Flag	Result	Units	Dil.	Spike		% Rec.	% Rec. Limit
					Amount	% Rec.		
2-Fluorophenol		51.48	mg/Kg	1	80	64	22 - 103	
Phenol-d5		60.20	mg/Kg	1	80	75	32 - 112	
Nitrobenzene-d5		61.71	mg/Kg	1	80	77	45 - 111	
2-Fluorobiphenyl		67.28	mg/Kg	1	80	84	43 - 110	
2,4,6-Tribromophenol		34.16	mg/Kg	1	80	42	34 - 136	
Terphenyl-d14		55.27	mg/Kg	1	80	69	47 - 120	

Sample: MSD QC Batch: QC04421

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	% Rec. Limit	RPD Limit
					Amount Added	Matrix Result			
Phenol		52.46	mg/Kg	1	80	<0.25	65	7	34 - 102
2-Chlorophenol		51.07	mg/Kg	1	80	<0.25	63	2	37 - 100
1,4-Dichlorobenzene		55.14	mg/Kg	1	80	<0.25	68	2	41 - 102
n-Nitrosodi-n-propylamine		64.13	mg/Kg	1	80	<0.25	80	4	45 - 107
1,2,4-Trichlorobenzene		59.74	mg/Kg	1	80	<0.25	74	0	39 - 103
4-Chloro-3-methylphenol		34.34	mg/Kg	1	80	<0.25	42	33	46 - 113
Acenaphthene		61.84	mg/Kg	1	80	<0.25	77	4	50 - 107
4-Nitrophenol	³	<7.50	mg/Kg	1	80	<0.25	0	0	0 - 152
2,4-Dinitrotoluene		47.49	mg/Kg	1	80	<0.25	59	15	53 - 114
Pentachlorophenol	⁴	<7.50	mg/Kg	1	80	<0.25	0	0	0 - 121
Pyrene		44.82	mg/Kg	1	80	<0.25	56	13	41 - 121

¹ Analyte did not appear due to matrix interferences. Use LCS and LCSD.² Analyte did not appear due to matrix interferences. Use LCS and LCSD.³ Analyte did not appear due to matrix interferences. Use LCS and LCSD.⁴ Analyte did not appear due to matrix interferences. Use LCS and LCSD.

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
2-Fluorophenol		52.46	mg/Kg	1	80	65	22 - 103
Phenol-d5		58.25	mg/Kg	1	80	72	32 - 112
Nitrobenzene-d5		64.05	mg/Kg	1	80	80	45 - 111
2-Fluorobiphenyl		73.25	mg/Kg	1	80	91	43 - 110
2,4,6-Tribromophenol		24.13	mg/Kg	1	80	30	34 - 136
Terphenyl-d14		47.70	mg/Kg	1	80	59	47 - 120

Quality Control Report

Continuing Calibration Verification Standards

Sample: CCV (1)

QC Batch: QC04421

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Phenol		mg/Kg	60	56.11	93	34 - 102	8/22/00
1,4-Dichlorobenzene		mg/Kg	60	58.90	98	41 - 102	8/22/00
2-Nitrophenol		mg/Kg	60	60.40	100	80 - 120	8/22/00
2,4-Dichlorophenol		mg/Kg	60	60.28	100	80 - 120	8/22/00
Hexachlorobutadiene		mg/Kg	60	59.38	98	80 - 120	8/22/00
4-Chloro-3-methylphenol		mg/Kg	60	59.49	99	46 - 113	8/22/00
2,4,6-Trichlorophenol		mg/Kg	60	58.95	98	80 - 120	8/22/00
Acenaphthene		mg/Kg	60	58.37	97	50 - 107	8/22/00
Diphenylamine		mg/Kg	60	55.76	92	80 - 120	8/22/00
Pentachlorophenol		mg/Kg	60	59.21	98	0 - 121	8/22/00
Fluoranthene		mg/Kg	60	63.48	105	80 - 120	8/22/00
Di-n-octylphthalate		mg/Kg	60	61.25	102	80 - 120	8/22/00
Benzo(a)pyrene		mg/Kg	60	60.78	101	80 - 120	8/22/00

TRACEANALYSIS, INC.

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Analytical and Quality Control Report

Report Date: August 31, 2000

Bo Vizcarino
Llano Permian Environmental
1031 Andrews Hwy, Ste. 115
Midland, TX 79701

Order ID Number: A00082115

Project Number: BPC
Project Name: Subsurface Investigation
Project Location: Artesia,NM

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
151785	SB-1 0-1	Soil	8/17/00	11:15	8/19/00
151786	SB-1 20	Soil	8/17/00	11:20	8/19/00
151787	SB-2 0-1	Soil	8/17/00	10:20	8/19/00
151788	SB-2 20'	Soil	8/17/00	11:00	8/19/00
151789	SB-3 0-1	Soil	8/17/00	17:00	8/19/00
151790	SB-3 20'	Soil	8/17/00	17:30	8/19/00
151791	SB-4 0-1	Soil	8/17/00	16:25	8/19/00
151792	SB-4 20'	Soil	8/17/00	15:50	8/19/00
151793	SB-5 0-1	Soil	8/17/00	15:22	8/19/00
151794	SB-5 20	Soil	8/17/00	15:20	8/19/00
151795	SB-6 0-1'	Soil	8/17/00	14:00	8/19/00
151796	SB-6 20'	Soil	8/17/00	14:25	8/19/00
151797	SB-7 0-1'	Soil	8/17/00	14:52	8/19/00
151798	SB-7 20'	Soil	8/17/00	15:00	8/19/00
151799	SB-8 0-1'	Soil	8/17/00	17:00	8/19/00
151800	SB-8 20'	Soil	8/17/00	12:30	8/19/00
151801	SB-9 0-1'	Soil	8/17/00	11:45	8/19/00
151802	SB-9 20'	Soil	8/17/00	11:48	8/19/00
151803	SB-10 0-1'	Soil	8/17/00	16:00	8/19/00
151804	SB-10 20'	Soil	8/17/00	16:15	8/19/00

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

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Dr. Blair Leftwich, Director

Analytical and Quality Control Report

Sample: 151785 - SB-1 0-1

Analysis: 8260 Analytical Method: S 8260B QC Batch: QC04476 Date Analyzed: 8/27/00
Analyst: JG Preparation Method: E 5030B Prep Batch: PB03900 Date Prepared: 8/27/00

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<50	µg/Kg	25	2
Dichlorodifluoromethane		<50	µg/Kg	25	2
Chloromethane (methyl chloride)		<50	µg/Kg	25	2
Vinyl Chloride		<50	µg/Kg	25	2
Bromomethane (methyl bromide)		<125	µg/Kg	25	5
Chloroethane		<50	µg/Kg	25	2
Trichlorofluoromethane		<50	µg/Kg	25	2
Acetone		<250	µg/Kg	25	10
Iodomethane (methyl iodide)		<50	µg/Kg	25	2
Carbon Disulfide		<50	µg/Kg	25	2
Acrylonitrile		<50	µg/Kg	25	2
2-Butanone (MEK)		<50	µg/Kg	25	2
4-methyl-2-pentanone (MIBK)		<250	µg/Kg	25	10
2-hexanone		<50	µg/Kg	25	2
trans 1,4-Dichloro-2-butene		<250	µg/Kg	25	10
1,1-Dichloroethene		<50	µg/Kg	25	2
Methylene chloride		<125	µg/Kg	25	5
MTBE		<50	µg/Kg	25	2
trans-1,2-Dichloroethene		<50	µg/Kg	25	2
1,1-Dichloroethane		<50	µg/Kg	25	2
cis-1,2-dichloroethene		<50	µg/Kg	25	2
2,2-Dichloropropane		<50	µg/Kg	25	2
1,2-Dichloroethane (EDC)		<50	µg/Kg	25	2
Chloroform		<50	µg/Kg	25	2
1,1,1-Trichloroethane		<50	µg/Kg	25	2
1,1-Dichloropropene		<50	µg/Kg	25	2
Benzene		<50	µg/Kg	25	2
Carbon Tetrachloride		<50	µg/Kg	25	2
1,2-Dichloropropane		<50	µg/Kg	25	2
Trichloroethene (TCE)		<50	µg/Kg	25	2
Dibromomethane (methylene bromide)		<50	µg/Kg	25	2
Bromodichloromethane		<50	µg/Kg	25	2
2-Chloroethyl vinyl ether		<250	µg/Kg	25	10
cis-1,3-Dichloropropene		<50	µg/Kg	25	2
trans-1,3-Dichloropropene		<50	µg/Kg	25	2
Toluene		<50	µg/Kg	25	2
1,1,2-Trichloroethane		<50	µg/Kg	25	2
1,3-Dichloropropane		<50	µg/Kg	25	2
Dibromochloromethane		<50	µg/Kg	25	2
1,2-Dibromoethane (EDB)		<50	µg/Kg	25	2
Tetrachloroethene (PCE)		<50	µg/Kg	25	2
Chlorobenzene		<50	µg/Kg	25	2
1,1,1,2-Tetrachloroethane		<50	µg/Kg	25	2
Ethylbenzene		<50	µg/Kg	25	2
m,p-Xylene		<50	µg/Kg	25	2

Continued ...

...Continued Sample: 151785 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
Bromoform		<50	µg/Kg	25	2
Styrene		<50	µg/Kg	25	2
o-Xylene		<50	µg/Kg	25	2
1,1,2,2-Tetrachloroethane		<50	µg/Kg	25	2
2-Chlorotoluene		<50	µg/Kg	25	2
1,2,3-Trichloropropane		<50	µg/Kg	25	2
Isopropylbenzene		<50	µg/Kg	25	2
Bromobenzene		<50	µg/Kg	25	2
n-Propylbenzene		<50	µg/Kg	25	2
1,3,5-Trimethylbenzene		<50	µg/Kg	25	2
tert-Butylbenzene		<50	µg/Kg	25	2
1,2,4-Trimethylbenzene		<50	µg/Kg	25	2
1,4-Dichlorobenzene (para)		<50	µg/Kg	25	2
sec-Butylbenzene		<50	µg/Kg	25	2
1,3-Dichlorobenzene		<50	µg/Kg	25	2
p-Isopropyltoluene		<50	µg/Kg	25	2
4-Chlorotoluene		<50	µg/Kg	25	2
1,2-Dichlorobenzene (ortho)		<50	µg/Kg	25	2
n-Butylbenzene		<50	µg/Kg	25	2
1,2-Dibromo-3-chloropropane		<125	µg/Kg	25	5
1,2,3-Trichlorobenzene		<125	µg/Kg	25	5
1,2,4-Trichlorobenzene		<125	µg/Kg	25	5
Naphthalene		145	µg/Kg	25	2
Hexachlorobutadiene		<125	µg/Kg	25	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		47.52	µg/Kg	1	50	95	69 - 116
Toluene-d8		49.26	µg/Kg	1	50	98	88 - 114
4-Bromofluorobenzene		52.15	µg/Kg	1	50	104	74 - 110

Sample: 151785 - SB-1 0-1Analysis: Hg, Total Analytical Method: S 7471A QC Batch: QC04451 Date Analyzed: 8/23/00
Analyst: MS Preparation Method: N/A Prep Batch: PB03879 Date Prepared: 8/23/00

Param	Flag	Result	Units	Dilution	RDL
Total Mercury		0.22	mg/Kg	1	0.19

Sample: 151785 - SB-1 0-1Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC04483 Date Analyzed: 8/25/00
Analyst: BP Preparation Method: 3550 B Prep Batch: PB03903 Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
DRO		<50	mg/Kg	1	50

Sample: 151785 - SB-1 0-1

Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC04519 Date Analyzed: 8/28/00
 Analyst: RC Preparation Method: Prep Batch: PB03938 Date Prepared: 8/28/00

Param	Flag	Result	Units	Dilution	RDL
GRO		46	mg/Kg	1	0.10

Sample: 151785 - SB-1 0-1

Analysis: Total Metals Analytical Method: S 6010B QC Batch: QC04432 Date Analyzed: 8/23/00
 Analyst: RR Preparation Method: E 3050B Prep Batch: PB03829 Date Prepared: 8/23/00

Param	Flag	Result	Units	Dilution	RDL
Total Arsenic		<5.0	mg/Kg	1	5
Total Barium		169	mg/Kg	1	5
Total Cadmium		<2.0	mg/Kg	1	2
Total Chromium		8.6	mg/Kg	1	5
Total Lead		35	mg/Kg	1	5
Total Selenium		<5.0	mg/Kg	1	5
Total Silver		<2.0	mg/Kg	1	2

Sample: 151786 - SB-1 20

Analysis: 8260 Analytical Method: S 8260B QC Batch: QC04476 Date Analyzed: 8/27/00
 Analyst: JG Preparation Method: E 5030B Prep Batch: PB03900 Date Prepared: 8/27/00

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<50	µg/Kg	25	2
Dichlorodifluoromethane		<50	µg/Kg	25	2
Chloromethane (methyl chloride)		<50	µg/Kg	25	2
Vinyl Chloride		<50	µg/Kg	25	2
Bromomethane (methyl bromide)		<125	µg/Kg	25	5
Chloroethane		<50	µg/Kg	25	2
Trichlorofluoromethane		<50	µg/Kg	25	2
Acetone		<250	µg/Kg	25	10
Iodomethane (methyl iodide)		<50	µg/Kg	25	2
Carbon Disulfide		<50	µg/Kg	25	2
Acrylonitrile		<50	µg/Kg	25	2
2-Butanone (MEK)		<50	µg/Kg	25	2
4-methyl-2-pentanone (MIBK)		<250	µg/Kg	25	10
2-hexanone		<50	µg/Kg	25	2
trans 1,4-Dichloro-2-butene		<250	µg/Kg	25	10
1,1-Dichloroethene		<50	µg/Kg	25	2
Methylene chloride		<125	µg/Kg	25	5
MTBE		<50	µg/Kg	25	2
trans-1,2-Dichloroethene		<50	µg/Kg	25	2
1,1-Dichloroethane		<50	µg/Kg	25	2
cis-1,2-dichloroethene		<50	µg/Kg	25	2
2,2-Dichloropropane		<50	µg/Kg	25	2
1,2-Dichloroethane (EDC)		<50	µg/Kg	25	2
Chloroform		<50	µg/Kg	25	2
1,1,1-Trichloroethane		<50	µg/Kg	25	2

Continued ...

...Continued Sample: 151786 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
1,1-Dichloropropene		<50	µg/Kg	25	2
Benzene		<50	µg/Kg	25	2
Carbon Tetrachloride		<50	µg/Kg	25	2
1,2-Dichloropropane		<50	µg/Kg	25	2
Trichloroethene (TCE)		<50	µg/Kg	25	2
Dibromomethane (methylene bromide)		<50	µg/Kg	25	2
Bromodichloromethane		<50	µg/Kg	25	2
2-Chloroethyl vinyl ether		<250	µg/Kg	25	10
cis-1,3-Dichloropropene		<50	µg/Kg	25	2
trans-1,3-Dichloropropene		<50	µg/Kg	25	2
Toluene		<50	µg/Kg	25	2
1,1,2-Trichloroethane		<50	µg/Kg	25	2
1,3-Dichloropropane		<50	µg/Kg	25	2
Dibromochloromethane		<50	µg/Kg	25	2
1,2-Dibromoethane (EDB)		<50	µg/Kg	25	2
Tetrachloroethene (PCE)		<50	µg/Kg	25	2
Chlorobenzene		<50	µg/Kg	25	2
1,1,2-Tetrachloroethane		<50	µg/Kg	25	2
Ethylbenzene		<50	µg/Kg	25	2
m,p-Xylene		<50	µg/Kg	25	2
Bromoform		<50	µg/Kg	25	2
Styrene		<50	µg/Kg	25	2
o-Xylene		<50	µg/Kg	25	2
1,1,2,2-Tetrachloroethane		<50	µg/Kg	25	2
2-Chlorotoluene		<50	µg/Kg	25	2
1,2,3-Trichloropropane		<50	µg/Kg	25	2
Isopropylbenzene		<50	µg/Kg	25	2
Bromobenzene		<50	µg/Kg	25	2
n-Propylbenzene		<50	µg/Kg	25	2
1,3,5-Trimethylbenzene		<50	µg/Kg	25	2
tert-Butylbenzene		<50	µg/Kg	25	2
1,2,4-Trimethylbenzene		<50	µg/Kg	25	2
1,4-Dichlorobenzene (para)		<50	µg/Kg	25	2
sec-Butylbenzene		<50	µg/Kg	25	2
1,3-Dichlorobenzene		<50	µg/Kg	25	2
p-Isopropyltoluene		<50	µg/Kg	25	2
4-Chlorotoluene		<50	µg/Kg	25	2
1,2-Dichlorobenzene (ortho)		<50	µg/Kg	25	2
n-Butylbenzene		<50	µg/Kg	25	2
1,2-Dibromo-3-chloropropane		<125	µg/Kg	25	5
1,2,3-Trichlorobenzene		<125	µg/Kg	25	5
1,2,4-Trichlorobenzene		<125	µg/Kg	25	5
Naphthalene		<50	µg/Kg	25	2
Hexachlorobutadiene		<125	µg/Kg	25	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		47.76	µg/Kg	1	50	95	69 - 116
Toluene-d8		49.17	µg/Kg	1	50	98	88 - 114
4-Bromofluorobenzene		52.99	µg/Kg	1	50	105	74 - 110

Sample: 151786 - SB-1 20

Analysis: Hg, Total Analytical Method: S 7471A QC Batch: QC04451 Date Analyzed: 8/23/00
 Analyst: MS Preparation Method: N/A Prep Batch: PB03879 Date Prepared: 8/23/00

Param	Flag	Result	Units	Dilution	RDL
Total Mercury		<0.19	mg/Kg	1	0.19

Sample: 151786 - SB-1 20

Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC04483 Date Analyzed: 8/25/00
 Analyst: BP Preparation Method: 3550 B Prep Batch: PB03903 Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
DRO		<50	mg/Kg	1	50

Sample: 151786 - SB-1 20

Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC04519 Date Analyzed: 8/28/00
 Analyst: RC Preparation Method: Prep Batch: PB03938 Date Prepared: 8/28/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 151786 - SB-1 20

Analysis: Total Metals Analytical Method: S 6010B QC Batch: QC04432 Date Analyzed: 8/23/00
 Analyst: RR Preparation Method: E 3050B Prep Batch: PB03829 Date Prepared: 8/23/00

Param	Flag	Result	Units	Dilution	RDL
Total Arsenic		<5.0	mg/Kg	1	5
Total Barium		177	mg/Kg	1	5
Total Cadmium		<2.0	mg/Kg	1	2
Total Chromium		9.8	mg/Kg	1	5
Total Lead		<5.0	mg/Kg	1	5
Total Selenium		<5.0	mg/Kg	1	5
Total Silver		<2.0	mg/Kg	1	2

Sample: 151787 - SB-2 0-1

Analysis: 8260 Analytical Method: S 8260B QC Batch: QC04476 Date Analyzed: 8/27/00
 Analyst: JG Preparation Method: E 5030B Prep Batch: PB03900 Date Prepared: 8/27/00

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<50	µg/Kg	25	2
Dichlorodifluoromethane		<50	µg/Kg	25	2
Chloromethane (methyl chloride)		<50	µg/Kg	25	2
Vinyl Chloride		<50	µg/Kg	25	2
Bromomethane (methyl bromide)		<125	µg/Kg	25	5
Chloroethane		<50	µg/Kg	25	2
Trichlorofluoromethane		<50	µg/Kg	25	2

Continued ...

...Continued Sample: 151787 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
Acetone		<250	µg/Kg	25	10
Iodomethane (methyl iodide)		<50	µg/Kg	25	2
Carbon Disulfide		<50	µg/Kg	25	2
Acrylonitrile		<50	µg/Kg	25	2
2-Butanone (MEK)		<50	µg/Kg	25	2
4-methyl-2-pentanone (MIBK)		<250	µg/Kg	25	10
2-hexanone		<50	µg/Kg	25	2
trans 1,4-Dichloro-2-butene		<250	µg/Kg	25	10
1,1-Dichloroethene		<50	µg/Kg	25	2
Methylene chloride		<125	µg/Kg	25	5
MTBE		<50	µg/Kg	25	2
trans-1,2-Dichloroethene		<50	µg/Kg	25	2
1,1-Dichloroethane		<50	µg/Kg	25	2
cis-1,2-dichloroethene		<50	µg/Kg	25	2
2,2-Dichloropropane		<50	µg/Kg	25	2
1,2-Dichloroethane (EDC)		<50	µg/Kg	25	2
Chloroform		<50	µg/Kg	25	2
1,1,1-Trichloroethane		<50	µg/Kg	25	2
1,1-Dichloropropene		<50	µg/Kg	25	2
Benzene		<50	µg/Kg	25	2
Carbon Tetrachloride		<50	µg/Kg	25	2
1,2-Dichloropropane		<50	µg/Kg	25	2
Trichloroethene (TCE)		<50	µg/Kg	25	2
Dibromomethane (methylene bromide)		<50	µg/Kg	25	2
Bromodichloromethane		<50	µg/Kg	25	2
2-Chloroethyl vinyl ether		<250	µg/Kg	25	10
cis-1,3-Dichloropropene		<50	µg/Kg	25	2
trans-1,3-Dichloropropene		<50	µg/Kg	25	2
Toluene		<50	µg/Kg	25	2
1,1,2-Trichloroethane		<50	µg/Kg	25	2
1,3-Dichloropropane		<50	µg/Kg	25	2
Dibromochloromethane		<50	µg/Kg	25	2
1,2-Dibromoethane (EDB)		<50	µg/Kg	25	2
Tetrachloroethene (PCE)		<50	µg/Kg	25	2
Chlorobenzene		<50	µg/Kg	25	2
1,1,1,2-Tetrachloroethane		<50	µg/Kg	25	2
Ethylbenzene		<50	µg/Kg	25	2
m,p-Xylene		<50	µg/Kg	25	2
Bromoform		<50	µg/Kg	25	2
Styrene		<50	µg/Kg	25	2
o-Xylene		<50	µg/Kg	25	2
1,1,2,2-Tetrachloroethane		<50	µg/Kg	25	2
2-Chlorotoluene		<50	µg/Kg	25	2
1,2,3-Trichloropropane		<50	µg/Kg	25	2
Isopropylbenzene		<50	µg/Kg	25	2
Bromobenzene		<50	µg/Kg	25	2
n-Propylbenzene		<50	µg/Kg	25	2
1,3,5-Trimethylbenzene		<50	µg/Kg	25	2
tert-Butylbenzene		<50	µg/Kg	25	2
1,2,4-Trimethylbenzene		<50	µg/Kg	25	2
1,4-Dichlorobenzene (para)		<50	µg/Kg	25	2

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Param	Flag	Result	Units	Dilution	RDL
Total Arsenic		<5.0	mg/Kg	1	5
Total Barium		198	mg/Kg	1	5
Total Cadmium		<2.0	mg/Kg	1	2
Total Chromium		<5.0	mg/Kg	1	5
Total Lead		<5.0	mg/Kg	1	5
Total Selenium		<5.0	mg/Kg	1	5
Total Silver		<2.0	mg/Kg	1	2

Sample: 151788 - SB-2 20'

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC04446 Date Analyzed: 8/23/00
Analyst: RC Preparation Method: 5035 Prep Batch: PB03840 Date Prepared: 8/22/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.05	mg/Kg	50	0.001
Toluene		<0.05	mg/Kg	50	0.001
Ethylbenzene		<0.05	mg/Kg	50	0.001
M,P,O-Xylene		<0.05	mg/Kg	50	0.001
Total BTEX		<0.05	mg/Kg	50	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		4.26	mg/Kg	1	0.10	85	72 - 128
4-BFB		4.6	mg/Kg	1	0.10	92	72 - 128

Sample: 151788 - SB-2 20'

Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC04484 Date Analyzed: 8/25/00
Analyst: BP Preparation Method: 3550 B Prep Batch: PB03904 Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
DRO		<50	mg/Kg	1	50

Sample: 151788 - SB-2 20'

Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC04453 Date Analyzed: 8/24/00
Analyst: RC Preparation Method: Prep Batch: PB03877 Date Prepared: 8/23/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 151789 - SB-3 0-1

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC04446 Date Analyzed: 8/23/00
Analyst: RC Preparation Method: 5035 Prep Batch: PB03840 Date Prepared: 8/22/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.05	mg/Kg	50	0.001

Continued ...

...Continued Sample: 151787 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
sec-Butylbenzene		<50	µg/Kg	25	2
1,3-Dichlorobenzene		<50	µg/Kg	25	2
p-Isopropyltoluene		<50	µg/Kg	25	2
4-Chlorotoluene		<50	µg/Kg	25	2
1,2-Dichlorobenzene (ortho)		<50	µg/Kg	25	2
n-Butylbenzene		<50	µg/Kg	25	2
1,2-Dibromo-3-chloropropane		<125	µg/Kg	25	5
1,2,3-Trichlorobenzene		<125	µg/Kg	25	5
1,2,4-Trichlorobenzene		<125	µg/Kg	25	5
Naphthalene		<50	µg/Kg	25	2
Hexachlorobutadiene		<125	µg/Kg	25	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		47.08	µg/Kg	1	50	94	69 - 116
Toluene-d8		49.33	µg/Kg	1	50	98	88 - 114
4-Bromofluorobenzene		52.08	µg/Kg	1	50	104	74 - 110

Sample: 151787 - SB-2 0-1

Analysis: Hg, Total Analytical Method: S 7471A QC Batch: QC04451 Date Analyzed: 8/23/00
Analyst: MS Preparation Method: N/A Prep Batch: PB03879 Date Prepared: 8/23/00

Param	Flag	Result	Units	Dilution	RDL
Total Mercury		<0.19	mg/Kg	1	0.19

Sample: 151787 - SB-2 0-1

Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC04484 Date Analyzed: 8/25/00
Analyst: BP Preparation Method: 3550 B Prep Batch: PB03904 Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
DRO		<50	mg/Kg	1	50

Sample: 151787 - SB-2 0-1

Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC04519 Date Analyzed: 8/28/00
Analyst: RC Preparation Method: Prep Batch: PB03938 Date Prepared: 8/28/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 151787 - SB-2 0-1

Analysis: Total Metals Analytical Method: S 6010B QC Batch: QC04432 Date Analyzed: 8/23/00
Analyst: RR Preparation Method: E 3050B Prep Batch: PB03829 Date Prepared: 8/23/00

...Continued Sample: 151789 Analysis: BTEX

Param	Flag	Result	Units	Dilution	RDL
Toluene		0.061	mg/Kg	50	0.001
Ethylbenzene		<0.05	mg/Kg	50	0.001
M,P,O-Xylene		0.07	mg/Kg	50	0.001
Total BTEX		0.131	mg/Kg	50	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		4.3	mg/Kg	1	0.10	86	72 - 128
4-BFB		4.59	mg/Kg	1	0.10	91	72 - 128

Sample: 151789 - SB-3 0-1

Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC04484 Date Analyzed: 8/25/00
Analyst: BP Preparation Method: 3550 B Prep Batch: PB03904 Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
DRO		<50	mg/Kg	1	50

Sample: 151789 - SB-3 0-1

Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC04453 Date Analyzed: 8/24/00
Analyst: RC Preparation Method: Prep Batch: PB03877 Date Prepared: 8/23/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 151790 - SB-3 20'

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC04446 Date Analyzed: 8/23/00
Analyst: RC Preparation Method: 5035 Prep Batch: PB03840 Date Prepared: 8/22/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.05	mg/Kg	50	0.001
Toluene		<0.05	mg/Kg	50	0.001
Ethylbenzene		<0.05	mg/Kg	50	0.001
M,P,O-Xylene		<0.05	mg/Kg	50	0.001
Total BTEX		<0.05	mg/Kg	50	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		4.13	mg/Kg	1	0.10	82	72 - 128
4-BFB		4.51	mg/Kg	1	0.10	90	72 - 128

Sample: 151790 - SB-3 20'

Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC04484 Date Analyzed: 8/25/00
Analyst: BP Preparation Method: 3550 B Prep Batch: PB03904 Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
DRO		<50	mg/Kg	1	50

Sample: 151790 - SB-3 20'

Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC04453 Date Analyzed: 8/24/00
Analyst: RC Preparation Method: Prep Batch: PB03877 Date Prepared: 8/23/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 151791 - SB-4 0-1

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC04446 Date Analyzed: 8/23/00
Analyst: RC Preparation Method: 5035 Prep Batch: PB03840 Date Prepared: 8/22/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.05	mg/Kg	50	0.001
Toluene		<0.05	mg/Kg	50	0.001
Ethylbenzene		<0.05	mg/Kg	50	0.001
M,P,O-Xylene		<0.05	mg/Kg	50	0.001
Total BTEX		<0.05	mg/Kg	50	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		4.4	mg/Kg	1	0.10	88	72 - 128
4-BFB		4.7	mg/Kg	1	0.10	94	72 - 128

Sample: 151791 - SB-4 0-1

Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC04484 Date Analyzed: 8/25/00
Analyst: BP Preparation Method: 3550 B Prep Batch: PB03904 Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
DRO		<50	mg/Kg	1	50

Sample: 151791 - SB-4 0-1

Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC04453 Date Analyzed: 8/24/00
Analyst: RC Preparation Method: Prep Batch: PB03877 Date Prepared: 8/23/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

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Sample: 151792 - SB-4 20'

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC04446 Date Analyzed: 8/23/00
Analyst: RC Preparation Method: 5035 Prep Batch: PB03840 Date Prepared: 8/22/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.05	mg/Kg	50	0.001
Toluene		<0.05	mg/Kg	50	0.001
Ethylbenzene		<0.05	mg/Kg	50	0.001
M,P,O-Xylene		<0.05	mg/Kg	50	0.001
Total BTEX		<0.05	mg/Kg	50	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		4.4	mg/Kg	1	0.10	88	72 - 128
4-BFB		4.7	mg/Kg	1	0.10	94	72 - 128

Sample: 151792 - SB-4 20'

Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC04484 Date Analyzed: 8/25/00
Analyst: BP Preparation Method: 3550 B Prep Batch: PB03904 Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
DRO		<50	mg/Kg	1	50

Sample: 151792 - SB-4 20'

Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC04453 Date Analyzed: 8/24/00
Analyst: RC Preparation Method: Prep Batch: PB03877 Date Prepared: 8/23/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 151793 - SB-5 0-1

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC04446 Date Analyzed: 8/23/00
Analyst: RC Preparation Method: 5035 Prep Batch: PB03840 Date Prepared: 8/22/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.05	mg/Kg	50	0.001
Toluene		<0.05	mg/Kg	50	0.001
Ethylbenzene		<0.05	mg/Kg	50	0.001
M,P,O-Xylene		<0.05	mg/Kg	50	0.001
Total BTEX		<0.05	mg/Kg	50	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		4.5	mg/Kg	1	0.10	90	72 - 128
4-BFB		4.73	mg/Kg	1	0.10	94	72 - 128

Sample: 151793 - SB-5 0-1

Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC04484 Date Analyzed: 8/25/00
Analyst: BP Preparation Method: 3550 B Prep Batch: PB03904 Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
DRO		<50	mg/Kg	1	50

Sample: 151793 - SB-5 0-1

Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC04453 Date Analyzed: 8/24/00
Analyst: RC Preparation Method: Prep Batch: PB03877 Date Prepared: 8/23/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 151794 - SB-5 20

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC04456 Date Analyzed: 8/24/00
Analyst: RC Preparation Method: 5035 Prep Batch: PB03883 Date Prepared: 8/24/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.05	mg/Kg	50	0.001
Toluene		<0.05	mg/Kg	50	0.001
Ethylbenzene		<0.05	mg/Kg	50	0.001
M,P,O-Xylene		<0.05	mg/Kg	50	0.001
Total BTEX		<0.05	mg/Kg	50	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		4.74	mg/Kg	1	0.10	94	72 - 128
4-BFB		4.27	mg/Kg	1	0.10	85	72 - 128

Sample: 151794 - SB-5 20

Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC04484 Date Analyzed: 8/25/00
Analyst: BP Preparation Method: 3550 B Prep Batch: PB03904 Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
DRO		<50	mg/Kg	1	50

Sample: 151794 - SB-5 20

Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC04457 Date Analyzed: 8/24/00
Analyst: RC Preparation Method: Prep Batch: PB03884 Date Prepared: 8/24/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 151795 - SB-6 0-1'

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC04456 Date Analyzed: 8/24/00
 Analyst: RC Preparation Method: 5035 Prep Batch: PB03883 Date Prepared: 8/24/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.05	mg/Kg	50	0.001
Toluene		<0.05	mg/Kg	50	0.001
Ethylbenzene		<0.05	mg/Kg	50	0.001
M,P,O-Xylene		<0.05	mg/Kg	50	0.001
Total BTEX		<0.05	mg/Kg	50	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		4.82	mg/Kg	1	0.10	96	72 - 128
4-BFB		4.21	mg/Kg	1	0.10	84	72 - 128

Sample: 151795 - SB-6 0-1'

Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC04484 Date Analyzed: 8/25/00
 Analyst: BP Preparation Method: 3550 B Prep Batch: PB03904 Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
DRO		<50	mg/Kg	1	50

Sample: 151795 - SB-6 0-1'

Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC04457 Date Analyzed: 8/24/00
 Analyst: RC Preparation Method: Prep Batch: PB03884 Date Prepared: 8/24/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 151796 - SB-6 20'

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC04456 Date Analyzed: 8/24/00
 Analyst: RC Preparation Method: 5035 Prep Batch: PB03883 Date Prepared: 8/24/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.05	mg/Kg	50	0.001
Toluene		<0.05	mg/Kg	50	0.001
Ethylbenzene		<0.05	mg/Kg	50	0.001
M,P,O-Xylene		<0.05	mg/Kg	50	0.001
Total BTEX		<0.05	mg/Kg	50	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		4.96	mg/Kg	1	0.10	99	72 - 128
4-BFB		4.42	mg/Kg	1	0.10	88	72 - 128

Sample: 151796 - SB-6 20'

Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC04484 Date Analyzed: 8/25/00
Analyst: BP Preparation Method: 3550 B Prep Batch: PB03904 Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
DRO		<50	mg/Kg	1	50

Sample: 151796 - SB-6 20'

Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC04457 Date Analyzed: 8/24/00
Analyst: RC Preparation Method: Prep Batch: PB03884 Date Prepared: 8/24/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 151797 - SB-7 0-1'

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC04456 Date Analyzed: 8/24/00
Analyst: RC Preparation Method: 5035 Prep Batch: PB03883 Date Prepared: 8/24/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.05	mg/Kg	50	0.001
Toluene		<0.05	mg/Kg	50	0.001
Ethylbenzene		<0.05	mg/Kg	50	0.001
M,P,O-Xylene		<0.05	mg/Kg	50	0.001
Total BTEX		<0.05	mg/Kg	50	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		4.83	mg/Kg	1	0.10	96	72 - 128
4-BFB		4.31	mg/Kg	1	0.10	86	72 - 128

Sample: 151797 - SB-7 0-1'

Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC04485 Date Analyzed: 8/25/00
Analyst: BP Preparation Method: 3550 B Prep Batch: PB03905 Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
DRO		<50	mg/Kg	1	50

Sample: 151797 - SB-7 0-1'

Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC04457 Date Analyzed: 8/24/00
Analyst: RC Preparation Method: Prep Batch: PB03884 Date Prepared: 8/24/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 151798 - SB-7 20'

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC04456 Date Analyzed: 8/24/00
 Analyst: RC Preparation Method: 5035 Prep Batch: PB03883 Date Prepared: 8/24/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.05	mg/Kg	50	0.001
Toluene		<0.05	mg/Kg	50	0.001
Ethylbenzene		<0.05	mg/Kg	50	0.001
M,P,O-Xylene		<0.05	mg/Kg	50	0.001
Total BTEX		<0.05	mg/Kg	50	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		4.85	mg/Kg	1	0.10	97	72 - 128
4-BFB		4.28	mg/Kg	1	0.10	85	72 - 128

Sample: 151798 - SB-7 20'

Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC04485 Date Analyzed: 8/25/00
 Analyst: BP Preparation Method: 3550 B Prep Batch: PB03905 Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
DRO		<50	mg/Kg	1	50

Sample: 151798 - SB-7 20'

Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC04457 Date Analyzed: 8/24/00
 Analyst: RC Preparation Method: Prep Batch: PB03884 Date Prepared: 8/24/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 151799 - SB-8 0-1'

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC04471 Date Analyzed: 8/25/00
 Analyst: RC Preparation Method: 5035 Prep Batch: PB03889 Date Prepared: 8/24/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.05	mg/Kg	50	0.001
Toluene		<0.05	mg/Kg	50	0.001
Ethylbenzene		<0.05	mg/Kg	50	0.001
M,P,O-Xylene		<0.05	mg/Kg	50	0.001
Total BTEX		<0.05	mg/Kg	50	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		4.25	mg/Kg	1	0.10	85	72 - 128
4-BFB		4.37	mg/Kg	1	0.10	87	72 - 128

Sample: 151799 - SB-8 0-1'Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC04485 Date Analyzed: 8/25/00
Analyst: BP Preparation Method: 3550 B Prep Batch: PB03905 Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
DRO		<50	mg/Kg	1	50

Sample: 151799 - SB-8 0-1'Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC04472 Date Analyzed: 8/25/00
Analyst: RC Preparation Method: Prep Batch: PB03890 Date Prepared: 8/24/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 151800 - SB-8 20'Analysis: BTEX Analytical Method: S 8021B QC Batch: QC04471 Date Analyzed: 8/25/00
Analyst: RC Preparation Method: 5035 Prep Batch: PB03889 Date Prepared: 8/24/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.05	mg/Kg	50	0.001
Toluene		<0.05	mg/Kg	50	0.001
Ethylbenzene		<0.05	mg/Kg	50	0.001
M,P,O-Xylene		<0.05	mg/Kg	50	0.001
Total BTEX		<0.05	mg/Kg	50	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		4.4	mg/Kg	1	0.10	88	72 - 128
4-BFB		4.57	mg/Kg	1	0.10	91	72 - 128

Sample: 151800 - SB-8 20'Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC04485 Date Analyzed: 8/25/00
Analyst: BP Preparation Method: 3550 B Prep Batch: PB03905 Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
DRO		<50	mg/Kg	1	50

Sample: 151800 - SB-8 20'Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC04472 Date Analyzed: 8/25/00
Analyst: RC Preparation Method: Prep Batch: PB03890 Date Prepared: 8/24/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 151801 - SB-9 0-1'

Analysis: 8260 Analytical Method: S 8260B QC Batch: QC04476 Date Analyzed: 8/27/00
Analyst: JG Preparation Method: E 5030B Prep Batch: PB03900 Date Prepared: 8/27/00

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<50	µg/Kg	25	2
Dichlorodifluoromethane		<50	µg/Kg	25	2
Chloromethane (methyl chloride)		<50	µg/Kg	25	2
Vinyl Chloride		<50	µg/Kg	25	2
Bromomethane (methyl bromide)		<125	µg/Kg	25	5
Chloroethane		<50	µg/Kg	25	2
Trichlorofluoromethane		<50	µg/Kg	25	2
Acetone		<250	µg/Kg	25	10
Iodomethane (methyl iodide)		<50	µg/Kg	25	2
Carbon Disulfide		<50	µg/Kg	25	2
Acrylonitrile		<50	µg/Kg	25	2
2-Butanone (MEK)		<50	µg/Kg	25	2
4-methyl-2-pentanone (MIBK)		<250	µg/Kg	25	10
2-hexanone		<50	µg/Kg	25	2
trans 1,4-Dichloro-2-butene		<250	µg/Kg	25	10
1,1-Dichloroethene		<50	µg/Kg	25	2
Methylene chloride		<125	µg/Kg	25	5
MTBE		<50	µg/Kg	25	2
trans-1,2-Dichloroethene		<50	µg/Kg	25	2
1,1-Dichloroethane		<50	µg/Kg	25	2
cis-1,2-dichloroethene		<50	µg/Kg	25	2
2,2-Dichloropropane		<50	µg/Kg	25	2
1,2-Dichloroethane (EDC)		<50	µg/Kg	25	2
Chloroform		<50	µg/Kg	25	2
1,1,1-Trichloroethane		<50	µg/Kg	25	2
1,1-Dichloropropene		<50	µg/Kg	25	2
Benzene		<50	µg/Kg	25	2
Carbon Tetrachloride		<50	µg/Kg	25	2
1,2-Dichloropropane		<50	µg/Kg	25	2
Trichloroethene (TCE)		<50	µg/Kg	25	2
Dibromomethane (methylene bromide)		<50	µg/Kg	25	2
Bromodichloromethane		<50	µg/Kg	25	2
2-Chloroethyl vinyl ether		<250	µg/Kg	25	10
cis-1,3-Dichloropropene		<50	µg/Kg	25	2
trans-1,3-Dichloropropene		<50	µg/Kg	25	2
Toluene		<50	µg/Kg	25	2
1,1,2-Trichloroethane		<50	µg/Kg	25	2
1,3-Dichloropropane		<50	µg/Kg	25	2
Dibromochloromethane		<50	µg/Kg	25	2
1,2-Dibromoethane (EDB)		<50	µg/Kg	25	2
Tetrachloroethene (PCE)		<50	µg/Kg	25	2
Chlorobenzene		<50	µg/Kg	25	2
1,1,1,2-Tetrachloroethane		<50	µg/Kg	25	2
Ethylbenzene		<50	µg/Kg	25	2
m,p-Xylene		<50	µg/Kg	25	2
Bromoform		<50	µg/Kg	25	2
Styrene		<50	µg/Kg	25	2
o-Xylene		<50	µg/Kg	25	2

Continued ...

...Continued Sample: 151801 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
1,1,2,2-Tetrachloroethane		<50	µg/Kg	25	2
2-Chlorotoluene		<50	µg/Kg	25	2
1,2,3-Trichloropropane		<50	µg/Kg	25	2
Isopropylbenzene		<50	µg/Kg	25	2
Bromobenzene		<50	µg/Kg	25	2
n-Propylbenzene		<50	µg/Kg	25	2
1,3,5-Trimethylbenzene		<50	µg/Kg	25	2
tert-Butylbenzene		<50	µg/Kg	25	2
1,2,4-Trimethylbenzene		<50	µg/Kg	25	2
1,4-Dichlorobenzene (para)		<50	µg/Kg	25	2
sec-Butylbenzene		<50	µg/Kg	25	2
1,3-Dichlorobenzene		<50	µg/Kg	25	2
p-Isopropyltoluene		<50	µg/Kg	25	2
4-Chlorotoluene		<50	µg/Kg	25	2
1,2-Dichlorobenzene (ortho)		<50	µg/Kg	25	2
n-Butylbenzene		<50	µg/Kg	25	2
1,2-Dibromo-3-chloropropane		<125	µg/Kg	25	5
1,2,3-Trichlorobenzene		<125	µg/Kg	25	5
1,2,4-Trichlorobenzene		<125	µg/Kg	25	5
Naphthalene		<50	µg/Kg	25	2
Hexachlorobutadiene		<125	µg/Kg	25	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		47.21	µg/Kg	1	50	94	69 - 116
Toluene-d8		49.02	µg/Kg	1	50	98	88 - 114
4-Bromofluorobenzene		51.85	µg/Kg	1	50	103	74 - 110

Sample: 151801 - SB-9 0-1'Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC04485 Date Analyzed: 8/25/00
Analyst: BP Preparation Method: 3550 B Prep Batch: PB03905 Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
DRO		<50	mg/Kg	1	50

Sample: 151801 - SB-9 0-1'Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC04519 Date Analyzed: 8/28/00
Analyst: RC Preparation Method: Prep Batch: PB03938 Date Prepared: 8/28/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 151802 - SB-9 20'Analysis: 8260 Analytical Method: S 8260B QC Batch: QC04476 Date Analyzed: 8/27/00
Analyst: JG Preparation Method: E 5030B Prep Batch: PB03900 Date Prepared: 8/27/00

Param	Flag	Result	Units	Dilution	RDL
Bromochloromethane		<50	µg/Kg	25	2
Dichlorodifluoromethane		<50	µg/Kg	25	2
Chloromethane (methyl chloride)		<50	µg/Kg	25	2
Vinyl Chloride		<50	µg/Kg	25	2
Bromomethane (methyl bromide)		<125	µg/Kg	25	5
Chloroethane		<50	µg/Kg	25	2
Trichlorofluoromethane		<50	µg/Kg	25	2
Acetone		<250	µg/Kg	25	10
Iodomethane (methyl iodide)		<50	µg/Kg	25	2
Carbon Disulfide		<50	µg/Kg	25	2
Acrylonitrile		<50	µg/Kg	25	2
2-Butanone (MEK)		<50	µg/Kg	25	2
4-methyl-2-pentanone (MIBK)		<250	µg/Kg	25	10
2-hexanone		<50	µg/Kg	25	2
trans 1,4-Dichloro-2-butene		<250	µg/Kg	25	10
1,1-Dichloroethene		<50	µg/Kg	25	2
Methylene chloride		<125	µg/Kg	25	5
MTBE		<50	µg/Kg	25	2
trans-1,2-Dichloroethene		<50	µg/Kg	25	2
1,1-Dichloroethane		<50	µg/Kg	25	2
cis-1,2-dichloroethene		<50	µg/Kg	25	2
2,2-Dichloropropane		<50	µg/Kg	25	2
1,2-Dichloroethane (EDC)		<50	µg/Kg	25	2
Chloroform		<50	µg/Kg	25	2
1,1,1-Trichloroethane		<50	µg/Kg	25	2
1,1-Dichloropropene		<50	µg/Kg	25	2
Benzene		<50	µg/Kg	25	2
Carbon Tetrachloride		<50	µg/Kg	25	2
1,2-Dichloropropene		<50	µg/Kg	25	2
Trichloroethene (TCE)		<50	µg/Kg	25	2
Dibromomethane (methylene bromide)		<50	µg/Kg	25	2
Bromodichloromethane		<50	µg/Kg	25	2
2-Chloroethyl vinyl ether		<250	µg/Kg	25	10
cis-1,3-Dichloropropene		<50	µg/Kg	25	2
trans-1,3-Dichloropropene		<50	µg/Kg	25	2
Toluene		<50	µg/Kg	25	2
1,1,2-Trichloroethane		<50	µg/Kg	25	2
1,3-Dichloropropane		<50	µg/Kg	25	2
Dibromochloromethane		<50	µg/Kg	25	2
1,2-Dibromoethane (EDB)		<50	µg/Kg	25	2
Tetrachloroethene (PCE)		<50	µg/Kg	25	2
Chlorobenzene		<50	µg/Kg	25	2
1,1,1,2-Tetrachloroethane		<50	µg/Kg	25	2
Ethylbenzene		<50	µg/Kg	25	2
m,p-Xylene		<50	µg/Kg	25	2
Bromoform		<50	µg/Kg	25	2
Styrene		<50	µg/Kg	25	2
o-Xylene		<50	µg/Kg	25	2
1,1,2,2-Tetrachloroethane		<50	µg/Kg	25	2
2-Chlorotoluene		<50	µg/Kg	25	2
1,2,3-Trichloropropene		<50	µg/Kg	25	2
Isopropylbenzene		<50	µg/Kg	25	2

Continued ...

...Continued Sample: 151802 Analysis: 8260

Param	Flag	Result	Units	Dilution	RDL
Bromobenzene		<50	µg/Kg	25	2
n-Propylbenzene		<50	µg/Kg	25	2
1,3,5-Trimethylbenzene		<50	µg/Kg	25	2
tert-Butylbenzene		<50	µg/Kg	25	2
1,2,4-Trimethylbenzene		<50	µg/Kg	25	2
1,4-Dichlorobenzene (para)		<50	µg/Kg	25	2
sec-Butylbenzene		<50	µg/Kg	25	2
1,3-Dichlorobenzene		<50	µg/Kg	25	2
p-Isopropyltoluene		<50	µg/Kg	25	2
4-Chlorotoluene		<50	µg/Kg	25	2
1,2-Dichlorobenzene (ortho)		<50	µg/Kg	25	2
n-Butylbenzene		<50	µg/Kg	25	2
1,2-Dibromo-3-chloropropane		<125	µg/Kg	25	5
1,2,3-Trichlorobenzene		<125	µg/Kg	25	5
1,2,4-Trichlorobenzene		<125	µg/Kg	25	5
Naphthalene		<50	µg/Kg	25	2
Hexachlorobutadiene		<125	µg/Kg	25	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		47.16	µg/Kg	1	50	94	69 - 116
Toluene-d8		49.02	µg/Kg	1	50	98	88 - 114
4-Bromofluorobenzene		51.50	µg/Kg	1	50	103	74 - 110

Sample: 151802 - SB-9 20'Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC04485 Date Analyzed: 8/25/00
Analyst: BP Preparation Method: 3550 B Prep Batch: PB03905 Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
DRO		<50	mg/Kg	1	50

Sample: 151802 - SB-9 20'Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC04522 Date Analyzed: 8/28/00
Analyst: RC Preparation Method: Prep Batch: PB03941 Date Prepared: 8/28/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 151803 - SB-10 0-1'Analysis: BTEX Analytical Method: S 8021B QC Batch: QC04471 Date Analyzed: 8/25/00
Analyst: RC Preparation Method: 5035 Prep Batch: PB03889 Date Prepared: 8/24/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.05	mg/Kg	50	0.001
Toluene		<0.05	mg/Kg	50	0.001

Continued ...

...Continued Sample: 151803 Analysis: BTEX

Param	Flag	Result	Units	Dilution	RDL
Ethylbenzene		<0.05	mg/Kg	50	0.001
M,P,O-Xylene		<0.05	mg/Kg	50	0.001
Total BTEX		<0.05	mg/Kg	50	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		4.47	mg/Kg	1	0.10	89	72 - 128
4-BFB		4.66	mg/Kg	1	0.10	93	72 - 128

Sample: 151803 - SB-10 0-1'

Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC04485 Date Analyzed: 8/25/00
Analyst: BP Preparation Method: 3550 B Prep Batch: PB03905 Date Prepared: 8/21/00

Param	Flag	Result	Units	Dilution	RDL
DRO		<50	mg/Kg	1	50

Sample: 151803 - SB-10 0-1'

Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC04472 Date Analyzed: 8/25/00
Analyst: RC Preparation Method: Prep Batch: PB03890 Date Prepared: 8/24/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 151804 - SB-10 20'

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC04471 Date Analyzed: 8/25/00
Analyst: RC Preparation Method: 5035 Prep Batch: PB03889 Date Prepared: 8/24/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.05	mg/Kg	50	0.001
Toluene		<0.05	mg/Kg	50	0.001
Ethylbenzene		<0.05	mg/Kg	50	0.001
M,P,O-Xylene		<0.05	mg/Kg	50	0.001
Total BTEX		<0.05	mg/Kg	50	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		4.42	mg/Kg	1	0.10	88	72 - 128
4-BFB		4.58	mg/Kg	1	0.10	91	72 - 128

Sample: 151804 - SB-10 20'

Analysis: TPH DRO Analytical Method: Mod. 8015B QC Batch: QC04485 Date Analyzed: 8/25/00
Analyst: BP Preparation Method: 3550 B Prep Batch: PB03905 Date Prepared: 8/21/00

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Param	Flag	Result	Units	Dilution	RDL
DRO		<50	mg/Kg	1	50

Sample: 151804 - SB-10 20'

Analysis: TPH GRO Analytical Method: 8015B QC Batch: QC04472 Date Analyzed: 8/25/00
Analyst: RC Preparation Method: Prep Batch: PB03890 Date Prepared: 8/24/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Quality Control Report Method Blank

Sample: Method Blank QCBatch: QC04432

Param	Flag	Results	Units	Reporting Limit
Total Arsenic		<5.0	mg/Kg	5
Total Barium		<5.0	mg/Kg	5
Total Cadmium		<2.0	mg/Kg	2
Total Chromium		<5.0	mg/Kg	5
Total Lead		<5.0	mg/Kg	5
Total Selenium		<5.0	mg/Kg	5
Total Silver		<2.0	mg/Kg	2

Sample: Method Blank QCBatch: QC04446

Param	Flag	Results	Units	Reporting Limit
Benzene		<0.05	mg/Kg	0.001
Toluene		<0.05	mg/Kg	0.001
Ethylbenzene		<0.05	mg/Kg	0.001
M,P,O-Xylene		<0.05	mg/Kg	0.001
Total BTEX		<0.05	mg/Kg	0.001

Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery	Recovery Limit
TFT		4.21	mg/Kg	0.10	84	72 - 128
4-BFB		4.45	mg/Kg	0.10	89	72 - 128

Sample: Method Blank QCBatch: QC04451

Param	Flag	Results	Units	Reporting Limit
Total Mercury		<0.19	mg/Kg	0.19

Sample: Method Blank QCBatch: QC04453

Param	Flag	Results	Units	Reporting Limit
GRO		<5	mg/Kg	0.10

Sample: Method Blank QCBatch: QC04456

Param	Flag	Results	Units	Reporting Limit
Benzene		<0.05	mg/Kg	0.001
Toluene		<0.05	mg/Kg	0.001
Ethylbenzene		<0.05	mg/Kg	0.001
M,P,O-Xylene		<0.05	mg/Kg	0.001
Total BTEX		<0.05	mg/Kg	0.001

Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery	Recovery Limit
TFT		4.94	mg/Kg	0.10	98	72 - 128
4-BFB		4.36	mg/Kg	0.10	87	72 - 128

Sample: Method Blank QCBatch: QC04457

Param	Flag	Results	Units	Reporting Limit
GRO		<5	mg/Kg	0.10

Sample: Method Blank QCBatch: QC04471

Param	Flag	Results	Units	Reporting Limit
Benzene		<0.05	mg/Kg	0.001
Toluene		<0.05	mg/Kg	0.001
Ethylbenzene		<0.05	mg/Kg	0.001
M,P,O-Xylene		<0.05	mg/Kg	0.001
Total BTEX		<0.05	mg/Kg	0.001

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Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery	Recovery Limit
TFT		4.52	mg/Kg	0.10	90	72 - 128
4-BFB		4.63	mg/Kg	0.10	92	72 - 128

Sample: Method Blank QCBatch: QC04476

Param	Flag	Results	Units	Reporting Limit
Bromochloromethane		<50	µg/Kg	2
Dichlorodifluoromethane		<50	µg/Kg	2
Chloromethane (methyl chloride)		<50	µg/Kg	2
Vinyl Chloride		<50	µg/Kg	2
Bromomethane (methyl bromide)		<125	µg/Kg	5
Chloroethane		<50	µg/Kg	2
Trichlorofluoromethane		<50	µg/Kg	2
Acetone		<250	µg/Kg	10
Iodomethane (methyl iodide)		<50	µg/Kg	2
Carbon Disulfide		<50	µg/Kg	2
Acrylonitrile		<50	µg/Kg	2
2-Butanone (MEK)		<50	µg/Kg	2
4-methyl-2-pentanone (MIBK)		<250	µg/Kg	10
2-hexanone		<50	µg/Kg	2
trans 1,4-Dichloro-2-butene		<250	µg/Kg	10
1,1-Dichloroethene		<50	µg/Kg	2
Methylene chloride		<125	µg/Kg	5
MTBE		<50	µg/Kg	2
trans-1,2-Dichloroethene		<50	µg/Kg	2
1,1-Dichloroethane		<50	µg/Kg	2
cis-1,2-dichloroethene		<50	µg/Kg	2
2,2-Dichloropropane		<50	µg/Kg	2
1,2-Dichloroethane (EDC)		<50	µg/Kg	2
Chloroform		<50	µg/Kg	2
1,1,1-Trichloroethane		<50	µg/Kg	2
1,1-Dichloropropene		<50	µg/Kg	2
Benzene		<50	µg/Kg	2
Carbon Tetrachloride		<50	µg/Kg	2
1,2-Dichloropropane		<50	µg/Kg	2
Trichloroethene (TCE)		<50	µg/Kg	2
Dibromomethane (methylene bromide)		<50	µg/Kg	2
Bromodichloromethane		<50	µg/Kg	2
2-Chloroethyl vinyl ether		<250	µg/Kg	10
cis-1,3-Dichloropropene		<50	µg/Kg	2
trans-1,3-Dichloropropene		<50	µg/Kg	2
Toluene		<50	µg/Kg	2
1,1,2-Trichloroethane		<50	µg/Kg	2
1,3-Dichloropropane		<50	µg/Kg	2
Dibromochloromethane		<50	µg/Kg	2

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Param	Flag	Results	Units	Reporting Limit
1,2-Dibromoethane (EDB)	.	<50	µg/Kg	2
Tetrachloroethene (PCE)	.	<50	µg/Kg	2
Chlorobenzene	.	<50	µg/Kg	2
1,1,1,2-Tetrachloroethane	.	<50	µg/Kg	2
Ethylbenzene	.	<50	µg/Kg	2
m,p-Xylene	.	<50	µg/Kg	2
Bromoform	.	<50	µg/Kg	2
Styrene	.	<50	µg/Kg	2
o-Xylene	.	<50	µg/Kg	2
1,1,2,2-Tetrachloroethane	.	<50	µg/Kg	2
2-Chlorotoluene	.	<50	µg/Kg	2
1,2,3-Trichloropropane	.	<50	µg/Kg	2
Isopropylbenzene	.	<50	µg/Kg	2
Bromobenzene	.	<50	µg/Kg	2
n-Propylbenzene	.	<50	µg/Kg	2
1,3,5-Trimethylbenzene	.	<50	µg/Kg	2
tert-Butylbenzene	.	<50	µg/Kg	2
1,2,4-Trimethylbenzene	.	<50	µg/Kg	2
1,4-Dichlorobenzene (para)	.	<50	µg/Kg	2
sec-Butylbenzene	.	<50	µg/Kg	2
1,3-Dichlorobenzene	.	<50	µg/Kg	2
p-Isopropyltoluene	.	<50	µg/Kg	2
4-Chlorotoluene	.	<50	µg/Kg	2
1,2-Dichlorobenzene (ortho)	.	<50	µg/Kg	2
n-Butylbenzene	.	<50	µg/Kg	2
1,2-Dibromo-3-chloropropane	.	<125	µg/Kg	5
1,2,3-Trichlorobenzene	.	<125	µg/Kg	5
1,2,4-Trichlorobenzene	.	<125	µg/Kg	5
Naphthalene	.	<50	µg/Kg	2
Hexachlorobutadiene	.	<125	µg/Kg	5

Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery	Recovery Limit
Dibromofluoromethane	.	49.61	µg/Kg	50	99	69 - 116
Toluene-d8	.	51.72	µg/Kg	50	103	88 - 114
4-Bromofluorobenzene	.	45.44	µg/Kg	50	90	74 - 110

Sample: Method Blank QCBatch: QC04483

Param	Flag	Results	Units	Reporting Limit
DRO	.	<50	mg/Kg	50

Sample: Method Blank QCBatch: QC04484

Param	Flag	Results	Units	Reporting Limit
DRO		<50	mg/Kg	50

Sample: Method Blank QCBatch: QC04485

Param	Flag	Results	Units	Reporting Limit
DRO		<50	mg/Kg	50

Sample: Method Blank QCBatch: QC04519

Param	Flag	Results	Units	Reporting Limit
GRO		<5	mg/Kg	0.10

Sample: Method Blank QCBatch: QC04522

Param	Flag	Results	Units	Reporting Limit
GRO		<5	mg/Kg	0.10

Quality Control Report Lab Control Spikes and Duplicate Spikes

Sample: LCS QC Batch: QC04432

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	% Rec. Limit	RPD	RPD Limit
					Amount Added	Matrix Result				
Total Arsenic		95	mg/Kg	1	100	<5.0	95	75 - 125	20	
Total Barium		203	mg/Kg	1	200	<5.0	101	75 - 125	20	
Total Cadmium		19.5	mg/Kg	1	20	<2.0	100	75 - 125	20	
Total Chromium		40.2	mg/Kg	1	40	<5.0	100	75 - 125	20	
Total Lead		98	mg/Kg	1	100	<5.0	98	75 - 125	20	
Total Selenium		82	mg/Kg	1	100	<5.0	82	75 - 125	20	
Total Silver		19	mg/Kg	1	20	<2.0	95	75 - 125	20	

Sample: LCSD QC Batch: QC04432

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	% Rec. Limit	RPD Limit
					Amount Added	Matrix Result			
Total Arsenic		97	mg/Kg	1	100	<5.0	97	2	75 - 125
Total Barium		205	mg/Kg	1	200	<5.0	102	1	75 - 125
Total Cadmium		19.8	mg/Kg	1	20	<2.0	100	2	75 - 125
Total Chromium		40.7	mg/Kg	1	40	<5.0	100	1	75 - 125
Total Lead		100	mg/Kg	1	100	<5.0	100	2	75 - 125
Total Selenium		84	mg/Kg	1	100	<5.0	84	2	75 - 125
Total Silver		19	mg/Kg	1	20	<2.0	95	0	75 - 125

Sample: LCS QC Batch: QC04446

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	% Rec. Limit	RPD Limit
					Amount Added	Matrix Result			
MTBE		5.33	mg/Kg	50	0.10	<0.05	106	80 - 120	20
Benzene		4.98	mg/Kg	50	0.10	<0.05	99	80 - 120	20
Toluene		4.89	mg/Kg	50	0.10	<0.05	97	80 - 120	20
Ethylbenzene		4.36	mg/Kg	50	0.10	<0.05	87	80 - 120	20
M,P,O-Xylene		13.5	mg/Kg	50	0.30	<0.05	90	80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike		% Rec.	% Rec. Limit
					Amount	Rec.		
TFT		4.24	mg/Kg	50	0.10	84	72 - 128	
4-BFB		4.41	mg/Kg	50	0.10	88	72 - 128	

Sample: LCSD QC Batch: QC04446

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	% Rec. Limit	RPD Limit
					Amount Added	Matrix Result			
MTBE		5.24	mg/Kg	50	0.10	<0.05	104	80 - 120	20
Benzene		4.84	mg/Kg	50	0.10	<0.05	96	80 - 120	20
Toluene		4.74	mg/Kg	50	0.10	<0.05	94	80 - 120	20
Ethylbenzene		4.24	mg/Kg	50	0.10	<0.05	84	80 - 120	20
M,P,O-Xylene		13.1	mg/Kg	50	0.30	<0.05	87	80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike		% Rec.	% Rec. Limit
					Amount	Rec.		
TFT		4.12	mg/Kg	50	0.10	82	72 - 128	
4-BFB		4.26	mg/Kg	50	0.10	85	72 - 128	

Sample: LCS QC Batch: QC04451

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	RPD	% Rec. Limit	RPD Limit
					Amount Added	Matrix Result				
Total Mercury		2.51	mg/Kg	1	2.50	<0.19	100		80 - 120	20

Sample: LCSD

QC Batch: QC04451

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	RPD	% Rec. Limit	RPD Limit
					Amount Added	Matrix Result				
Total Mercury		2.48	mg/Kg	1	2.50	<0.19	99	1	80 - 120	20

Sample: LCS

QC Batch: QC04453

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	RPD	% Rec. Limit	RPD Limit
					Amount Added	Matrix Result				
GRO		0.968	mg/Kg	1	1	<5	96		80 - 120	20

Sample: LCSD

QC Batch: QC04453

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	RPD	% Rec. Limit	RPD Limit
					Amount Added	Matrix Result				
GRO		1.02	mg/Kg	1	1	<5	102	5	80 - 120	20

Sample: LCS

QC Batch: QC04456

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	RPD	% Rec. Limit	RPD Limit
					Amount Added	Matrix Result				
MTBE		4.88	mg/Kg	50	0.10	<0.05	97		80 - 120	20
Benzene		4.6	mg/Kg	50	0.10	<0.05	92		80 - 120	20
Toluene		4.46	mg/Kg	50	0.10	<0.05	89		80 - 120	20
Ethylbenzene		4.57	mg/Kg	50	0.10	<0.05	91		80 - 120	20
M,P,O-Xylene		14.9	mg/Kg	50	0.30	<0.05	99		80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike		% Rec.	RPD	% Rec. Limit	RPD Limit
					Amount	Matrix				
TFT		4.84	mg/Kg	50	0.10	<0.05	96		72 - 128	
4-BFB		4.48	mg/Kg	50	0.10	<0.05	89		72 - 128	

Sample: LCSD

QC Batch: QC04456

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	% Rec. Limit	RPD	RPD Limit
					Amount Added	Matrix Result				
MTBE		4.68	mg/Kg	50	0.10	<0.05	93	4	80 - 120	20
Benzene		4.41	mg/Kg	50	0.10	<0.05	88	4	80 - 120	20
Toluene		4.28	mg/Kg	50	0.10	<0.05	85	4	80 - 120	20
Ethylbenzene		4.36	mg/Kg	50	0.10	<0.05	87	5	80 - 120	20
M,P,O-Xylene		14.3	mg/Kg	50	0.30	<0.05	95	4	80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike		% Rec.	% Rec. Limit
					Amount	Rec.		
TFT		4.67	mg/Kg	50	0.10	93	72 - 128	
4-BFB		4.34	mg/Kg	50	0.10	86	72 - 128	

Sample: LCS QC Batch: QC04457

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	% Rec. Limit	RPD	RPD Limit
					Amount Added	Matrix Result				
GRO		0.8	mg/Kg	1	1	<5	80	80 - 120	20	

Sample: LCSD QC Batch: QC04457

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	% Rec. Limit	RPD	RPD Limit
					Amount Added	Matrix Result				
GRO		0.875	mg/Kg	1	1	<5	87	80 - 120	20	

Sample: LCS QC Batch: QC04471

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	% Rec. Limit	RPD	RPD Limit
					Amount Added	Matrix Result				
MTBE		4.97	mg/Kg	50	0.10	<0.05	99	80 - 120	20	
Benzene		4.68	mg/Kg	50	0.10	<0.05	93	80 - 120	20	
Toluene		4.64	mg/Kg	50	0.10	<0.05	92	80 - 120	20	
Ethylbenzene		4.15	mg/Kg	50	0.10	<0.05	83	80 - 120	20	
M,P,O-Xylene		12.7	mg/Kg	50	0.30	<0.05	84	80 - 120	20	

Surrogate	Flag	Result	Units	Dil.	Spike		% Rec.	% Rec. Limit
					Amount	Rec.		
TFT		4.39	mg/Kg	50	0.10	87	72 - 128	
4-BFB		4.42	mg/Kg	50	0.10	88	72 - 128	

Sample: LCSD

QC Batch: QC04471

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	% Rec. Limit	RPD Limit
					Amount Added	Matrix Result			
MTBE		4.98	mg/Kg	50	0.10	<0.05	99	0	80 - 120
Benzene		4.76	mg/Kg	50	0.10	<0.05	95	2	80 - 120
Toluene		4.77	mg/Kg	50	0.10	<0.05	95	3	80 - 120
Ethylbenzene		4.32	mg/Kg	50	0.10	<0.05	86	4	80 - 120
M,P,O-Xylene		13.3	mg/Kg	50	0.30	<0.05	88	5	80 - 120

Surrogate	Flag	Result	Units	Dil.	Spike		% Rec.	% Rec. Limit
					Amount	% Rec.		
TFT		4.27	mg/Kg	50	0.10	85	72 - 128	
4-BFB		4.31	mg/Kg	50	0.10	86	72 - 128	

Sample: LCS

QC Batch: QC04476

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	% Rec. Limit	RPD Limit
					Amount Added	Matrix Result			
1,1-Dichloroethene		87	µg/Kg	1	100	<50	87	80 - 120	20
Benzene		91	µg/Kg	1	100	<50	91	80 - 120	20
Trichloroethene (TCE)		91	µg/Kg	1	100	<50	91	80 - 120	20
Toluene		90	µg/Kg	1	100	<50	90	80 - 120	20
Chlorobenzene		94	µg/Kg	1	100	<50	94	80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike		% Rec.	% Rec. Limit
					Amount	% Rec.		
Dibromofluoromethane		48.85	µg/Kg	1	50	97	69 - 116	
Toluene-d8		50.55	µg/Kg	1	50	101	88 - 114	
4-Bromofluorobenzene		46.87	µg/Kg	1	50	93	74 - 110	

Sample: LCSD

QC Batch: QC04476

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	% Rec. Limit	RPD Limit
					Amount Added	Matrix Result			
1,1-Dichloroethene		92	µg/Kg	1	100	<50	92	6	80 - 120
Benzene		95	µg/Kg	1	100	<50	95	4	80 - 120
Trichloroethene (TCE)		95	µg/Kg	1	100	<50	95	4	80 - 120
Toluene		95	µg/Kg	1	100	<50	95	5	80 - 120
Chlorobenzene		98	µg/Kg	1	100	<50	98	4	80 - 120

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Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
Dibromofluoromethane		49.28	µg/Kg	1	50	98	69 - 116
Toluene-d8		50.42	µg/Kg	1	50	100	88 - 114
4-Bromofluorobenzene		46.50	µg/Kg	1	50	93	74 - 110

Sample: LCS QC Batch: QC04483

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO		255	mg/Kg	1	250	<50	102		70 - 130	20

Sample: LCSD QC Batch: QC04483

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO		251	mg/Kg	1	250	<50	100	2	70 - 130	20

Sample: LCS QC Batch: QC04484

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO		263	mg/Kg	1	250	<50	105		70 - 130	20

Sample: LCSD QC Batch: QC04484

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO		273	mg/Kg	1	250	<50	109	4	70 - 130	20

Sample: LCS QC Batch: QC04485

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Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO		261	mg/Kg	1	250	<50	104		70 - 130	20

Sample: LCSD QC Batch: QC04485

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO		266	mg/Kg	1	250	<50	106	2	70 - 130	20

Sample: LCS QC Batch: QC04519

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
GRO		1.12	mg/Kg	1	1	<5	112		80 - 120	20

Sample: LCSD QC Batch: QC04519

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
GRO		1.19	mg/Kg	1	1	<5	119	6	80 - 120	20

Sample: LCS QC Batch: QC04522

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
GRO		1.18	mg/Kg	1	1	<5	118		80 - 120	20

Sample: LCSD QC Batch: QC04522

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Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
GRO		1.01	mg/Kg	1	1	<5	101	16	80 - 120	20

Quality Control Report Matrix Spikes and Duplicate Spikes

Sample: MS QC Batch: QC04432

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Total Arsenic		96	mg/Kg	1	100	<5.0	96		75 - 125	20
Total Barium		428	mg/Kg	1	200	210	109		75 - 125	20
Total Cadmium		18.5	mg/Kg	1	20	<2.0	93		75 - 125	20
Total Chromium		48	mg/Kg	1	40	8.8	120		75 - 125	20
Total Lead		114	mg/Kg	1	100	22	114		75 - 125	20
Total Selenium		81	mg/Kg	1	100	<5.0	81		75 - 125	20
Total Silver		18	mg/Kg	1	20	<2.0	94		75 - 125	20

Sample: MSD QC Batch: QC04432

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Total Arsenic		95	mg/Kg	1	100	<5.0	95	1	75 - 125	20
Total Barium		427	mg/Kg	1	200	210	108	0	75 - 125	20
Total Cadmium		18.2	mg/Kg	1	20	<2.0	92	2	75 - 125	20
Total Chromium		47	mg/Kg	1	40	8.8	118	2	75 - 125	20
Total Lead		118	mg/Kg	1	100	22	118	4	75 - 125	20
Total Selenium		78	mg/Kg	1	100	<5.0	78	4	75 - 125	20
Total Silver		17	mg/Kg	1	20	<2.0	92	6	75 - 125	20

Sample: MS QC Batch: QC04446

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Benzene		4.94	mg/Kg	50	0.10	<0.05	98	3	80 - 120	20

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Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	% Rec. Limit	RPD Limit	
					Amount Added	Matrix Result				
Toluene		4.84	mg/Kg	50	0.10	<0.05	96	3	80 - 120	20
Ethylbenzene		4.35	mg/Kg	50	0.10	<0.05	87	3	80 - 120	20
M,P,O-Xylene		13.3	mg/Kg	50	0.30	<0.05	88	3	80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike		% Rec.	% Rec. Limit
					Amount	Matrix Result		
TFT		4.25	mg/Kg	50	0.10	85	72 - 128	
4-BFB		4.43	mg/Kg	50	0.10	88	72 - 128	

Sample: MSD QC Batch: QC04446

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	% Rec. Limit	RPD Limit	
					Amount Added	Matrix Result				
Benzene		4.98	mg/Kg	50	0.10	<0.05	99	1	80 - 120	20
Toluene		4.87	mg/Kg	50	0.10	<0.05	97	1	80 - 120	20
Ethylbenzene		4.35	mg/Kg	50	0.10	<0.05	87	0	80 - 120	20
M,P,O-Xylene		13.4	mg/Kg	50	0.30	<0.05	89	1	80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike		% Rec.	% Rec. Limit
					Amount	Matrix Result		
TFT		4.29	mg/Kg	50	0.10	85	72 - 128	
4-BFB		4.42	mg/Kg	50	0.10	88	72 - 128	

Sample: MS QC Batch: QC04451

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	% Rec. Limit	RPD Limit
					Amount Added	Matrix Result			
Total Mercury		2.50	mg/Kg	1	2.50	<0.19	100	80 - 120	20

Sample: MSD QC Batch: QC04451

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	% Rec. Limit	RPD Limit
					Amount Added	Matrix Result			
Total Mercury		2.53	mg/Kg	1	2.50	<0.19	101	80 - 120	20

Sample: MS QC Batch: QC04456

Param	Flag	Sample		Spike		% Rec.	RPD	% Rec. Limit	RPD Limit
		Result	Units	Dil.	Amount Added				
Benzene		4.48	mg/Kg	50	0.10	<0.05	89	4	80 - 120
Toluene		4.37	mg/Kg	50	0.10	<0.05	87	4	80 - 120
Ethylbenzene		4.4	mg/Kg	50	0.10	<0.05	88	5	80 - 120
M,P,O-Xylene		14.4	mg/Kg	50	0.30	<0.05	96	4	80 - 120

Surrogate	Flag	Sample		Spike		% Rec.	RPD	% Rec. Limit
		Result	Units	Dil.	Amount			
TFT		5.03	mg/Kg	50	0.10	100		72 - 128
4-BFB		4.6	mg/Kg	50	0.10	92		72 - 128

Sample: MSD QC Batch: QC04456

Param	Flag	Sample		Spike		% Rec.	RPD	% Rec. Limit
		Result	Units	Dil.	Amount Added			
Benzene		4.54	mg/Kg	50	0.10	<0.05	90	1
Toluene		4.39	mg/Kg	50	0.10	<0.05	87	0
Ethylbenzene		4.4	mg/Kg	50	0.10	<0.05	88	0
M,P,O-Xylene		14.4	mg/Kg	50	0.30	<0.05	96	0

Surrogate	Flag	Sample		Spike		% Rec.	RPD	% Rec. Limit
		Result	Units	Dil.	Amount			
TFT		4.79	mg/Kg	50	0.10	95		72 - 128
4-BFB		4.36	mg/Kg	50	0.10	87		72 - 128

Sample: MS QC Batch: QC04471

Param	Flag	Sample		Spike		% Rec.	RPD	RPD Limit
		Result	Units	Dil.	Amount Added			
Benzene		5.02	mg/Kg	50	0.10	<0.05	100	2
Toluene		4.95	mg/Kg	50	0.10	<0.05	99	3
Ethylbenzene		4.4	mg/Kg	50	0.10	<0.05	88	4
M,P,O-Xylene		13.5	mg/Kg	50	0.30	<0.05	90	5

Surrogate	Flag	Sample		Spike		% Rec.	RPD	RPD Limit
		Result	Units	Dil.	Amount			
TFT		4.38	mg/Kg	50	0.10	87		72 - 128
4-BFB		4.4	mg/Kg	50	0.10	88		72 - 128

Sample: MSD QC Batch: QC04471

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	% Rec. Limit	RPD Limit
					Amount Added	Matrix Result			
Benzene		5.05	mg/Kg	50	0.10	<0.05	101	0	80 - 120
Toluene		5	mg/Kg	50	0.10	<0.05	100	1	80 - 120
Ethylbenzene		4.5	mg/Kg	50	0.10	<0.05	90	2	80 - 120
M,P,O-Xylene		13.9	mg/Kg	50	0.30	<0.05	92	3	80 - 120

Surrogate	Flag	Result	Units	Dil.	Spike		% Rec.	% Rec. Limit
					Amount	Result		
TFT		4.35	mg/Kg	50	0.10	87	72 - 128	
4-BFB		4.48	mg/Kg	50	0.10	89	72 - 128	

Sample: MS QC Batch: QC04476

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	% Rec. Limit	RPD Limit
					Amount Added	Matrix Result			
1,1-Dichloroethene		89	µg/Kg	1	100	<50	89	80 - 120	20
Benzene		95	µg/Kg	1	100	<50	95	74 - 121	20
Trichloroethene (TCE)		93	µg/Kg	1	100	<50	93	72 - 121	20
Toluene		93	µg/Kg	1	100	<50	93	75 - 134	20
Chlorobenzene		95	µg/Kg	1	100	<50	95	83 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike		% Rec.	% Rec. Limit
					Amount	Result		
Dibromofluoromethane		47.66	µg/Kg	1	50	95	69 - 116	
Toluene-d8		48.58	µg/Kg	1	50	97	88 - 114	
4-Bromofluorobenzene		52.41	µg/Kg	1	50	104	74 - 110	

Sample: MSD QC Batch: QC04476

Param	Flag	Sample Result	Units	Dil.	Spike		% Rec.	% Rec. Limit	RPD Limit
					Amount Added	Matrix Result			
1,1-Dichloroethene		88	µg/Kg	1	100	<50	88	80 - 120	20
Benzene		94	µg/Kg	1	100	<50	94	74 - 121	20
Trichloroethene (TCE)		92	µg/Kg	1	100	<50	92	72 - 121	20
Toluene		93	µg/Kg	1	100	<50	93	75 - 134	20
Chlorobenzene		96	µg/Kg	1	100	<50	96	83 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike		% Rec.	% Rec. Limit
					Amount	Result		
Dibromofluoromethane		47.30	µg/Kg	1	50	94	69 - 116	
Toluene-d8		48.95	µg/Kg	1	50	97	88 - 114	
4-Bromofluorobenzene		51.95	µg/Kg	1	50	103	74 - 110	

Sample: MS QC Batch: QC04483

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO		256	mg/Kg	1	250	<50	102		70 - 130	20

Sample: MSD QC Batch: QC04483

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO		272	mg/Kg	1	250	<50	108	6	70 - 130	20

Sample: MS QC Batch: QC04484

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO		249	mg/Kg	1	250	<50	99		70 - 130	20

Sample: MSD QC Batch: QC04484

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO		253	mg/Kg	1	250	<50	101	2	70 - 130	20

Sample: MS QC Batch: QC04485

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO		247	mg/Kg	1	250	<50	98		70 - 130	20

Sample: MSD QC Batch: QC04485

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO		277	mg/Kg	1	250	<50	110	11	70 - 130	20

Quality Control Report Continuing Calibration Verification Standards

Sample: CCV (1)

QC Batch: QC04432

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Arsenic		mg/Kg	2.50	2.52	100	75 - 125	8/23/00
Total Barium		mg/Kg	5	5.04	100	75 - 125	8/23/00
Total Cadmium		mg/Kg	0.50	0.51	102	75 - 125	8/23/00
Total Chromium		mg/Kg	1	1.00	100	75 - 125	8/23/00
Total Lead		mg/Kg	2.50	2.50	100	75 - 125	8/23/00
Total Selenium		mg/Kg	2.50	2.55	102	75 - 125	8/23/00
Total Silver		mg/Kg	0.50	0.50	100	75 - 125	8/23/00

Sample: ICV (1)

QC Batch: QC04432

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Arsenic		mg/Kg	2.50	2.49	99	75 - 125	8/23/00
Total Barium		mg/Kg	5	5.04	100	75 - 125	8/23/00
Total Cadmium		mg/Kg	0.50	0.50	100	75 - 125	8/23/00
Total Chromium		mg/Kg	1	1.00	100	75 - 125	8/23/00
Total Lead		mg/Kg	2.50	2.50	100	75 - 125	8/23/00
Total Selenium		mg/Kg	2.50	2.51	100	75 - 125	8/23/00
Total Silver		mg/Kg	0.50	0.50	100	75 - 125	8/23/00

Sample: CCV (1)

QC Batch: QC04446

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.10	0.096	96	80 - 120	8/23/00
Toluene		mg/Kg	0.10	0.094	94	80 - 120	8/23/00
Ethylbenzene		mg/Kg	0.10	0.084	84	80 - 120	8/23/00
M,P,O-Xylene		mg/Kg	0.30	0.26	86	80 - 120	8/23/00

Sample: CCV (2)

QC Batch: QC04446

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.10	0.098	98	80 - 120	8/23/00

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Toluene		mg/Kg	0.10	0.096	96	80 - 120	8/23/00
Ethylbenzene		mg/Kg	0.10	0.086	86	80 - 120	8/23/00
M,P,O-Xylene		mg/Kg	0.30	0.264	88	80 - 120	8/23/00

Sample: ICV (1)

QC Batch: QC04446

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.10	0.097	97	80 - 120	8/23/00
Toluene		mg/Kg	0.10	0.095	95	80 - 120	8/23/00
Ethylbenzene		mg/Kg	0.10	0.084	84	80 - 120	8/23/00
M,P,O-Xylene		mg/Kg	0.30	0.262	87	80 - 120	8/23/00

Sample: CCV (1)

QC Batch: QC04451

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/Kg	0.005	0.00461	100	80 - 120	8/23/00

Sample: ICV (1)

QC Batch: QC04451

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/Kg	0.005	0.00463	100	80 - 120	8/23/00

Sample: CCV (1)

QC Batch: QC04453

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1	1.01	101	80 - 120	8/24/00

Sample: ICV (1)

QC Batch: QC04453

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1	0.978	97	80 - 120	8/24/00

Sample: CCV (1) QC Batch: QC04456

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.10	0.091	91	80 - 120	8/24/00
Toluene		mg/Kg	0.10	0.088	88	80 - 120	8/24/00
Ethylbenzene		mg/Kg	0.10	0.09	90	80 - 120	8/24/00
M,P,O-Xylene		mg/Kg	0.30	0.294	98	80 - 120	8/24/00

Sample: CCV (2) QC Batch: QC04456

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.10	0.091	91	80 - 120	8/24/00
Toluene		mg/Kg	0.10	0.088	88	80 - 120	8/24/00
Ethylbenzene		mg/Kg	0.10	0.09	90	80 - 120	8/24/00
M,P,O-Xylene		mg/Kg	0.30	0.294	98	80 - 120	8/24/00

Sample: ICV (1) QC Batch: QC04456

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.10	0.106	106	80 - 120	8/24/00
Toluene		mg/Kg	0.10	0.102	102	80 - 120	8/24/00
Ethylbenzene		mg/Kg	0.10	0.09	90	80 - 120	8/24/00
M,P,O-Xylene		mg/Kg	0.30	0.296	98	80 - 120	8/24/00

Sample: CCV (1) QC Batch: QC04457

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1	0.803	80	80 - 120	8/24/00

Sample: ICV (1) QC Batch: QC04457

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1	1.14	114	80 - 120	8/24/00

Sample: CCV (1) QC Batch: QC04471

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.10	0.101	101	80 - 120	8/25/00
Toluene		mg/Kg	0.10	0.1	100	80 - 120	8/25/00
Ethylbenzene		mg/Kg	0.10	0.088	88	80 - 120	8/25/00
M,P,O-Xylene		mg/Kg	0.30	0.273	91	80 - 120	8/25/00

Sample: CCV (2) QC Batch: QC04471

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.10	0.097	97	80 - 120	8/25/00
Toluene		mg/Kg	0.10	0.096	96	80 - 120	8/25/00
Ethylbenzene		mg/Kg	0.10	0.085	85	80 - 120	8/25/00
M,P,O-Xylene		mg/Kg	0.30	0.262	87	80 - 120	8/25/00

Sample: ICV (1) QC Batch: QC04471

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.10	0.098	98	80 - 120	8/25/00
Toluene		mg/Kg	0.10	0.098	98	80 - 120	8/25/00
Ethylbenzene		mg/Kg	0.10	0.089	89	80 - 120	8/25/00
M,P,O-Xylene		mg/Kg	0.30	0.273	91	80 - 120	8/25/00

Sample: CCV (1) QC Batch: QC04472

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1	1.1	110	80 - 120	8/25/00

Sample: ICV (1) QC Batch: QC04472

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BPC

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Subsurface Investigation

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Artesia,NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1	1.1	110	80 - 120	8/25/00

Sample: CCV (1)

QC Batch: QC04476

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/Kg	100	102	102	80 - 120	8/27/00
1,1-Dichloroethene		µg/Kg	100	107	107	64 - 149	8/27/00
Chloroform		µg/Kg	100	103	103	80 - 120	8/27/00
1,2-Dichloropropane		µg/Kg	100	103	103	80 - 120	8/27/00
Toluene		µg/Kg	100	103	103	70 - 127	8/27/00
Chlorobenzene		µg/Kg	100	104	104	76 - 122	8/27/00
Ethylbenzene		µg/Kg	100	106	106	80 - 120	8/27/00
Dibromofluoromethane		µg/Kg	50	49.67	99	73 - 129	8/27/00
Toluene-d8		µg/Kg	50	49.41	98	87 - 114	8/27/00
4-Bromofluorobenzene		µg/Kg	50	51.54	103	65 - 112	8/27/00

Sample: CCV (1)

QC Batch: QC04483

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	271	108	70 - 130	8/25/00

Sample: CCV (2)

QC Batch: QC04483

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	272	108	70 - 130	8/25/00

Sample: ICV (1)

QC Batch: QC04483

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	263	105	70 - 130	8/25/00

Sample: CCV (1)

QC Batch: QC04484

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	271	108	70 - 130	8/25/00

Sample: CCV (2) QC Batch: QC04484

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	275	110	70 - 130	8/25/00

Sample: ICV (1) QC Batch: QC04484

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	260	104	70 - 130	8/25/00

Sample: CCV (1) QC Batch: QC04485

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	258	103	70 - 130	8/25/00

Sample: CCV (2) QC Batch: QC04485

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	251	100	70 - 130	8/25/00

Sample: ICV (1) QC Batch: QC04485

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	270	108	70 - 130	8/25/00

Sample: CCV (1) QC Batch: QC04519

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1	0.834	83	80 - 120	8/28/00

Sample: ICV (1) QC Batch: QC04519

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1	1.2	120	80 - 120	8/28/00

Sample: CCV (1) QC Batch: QC04522

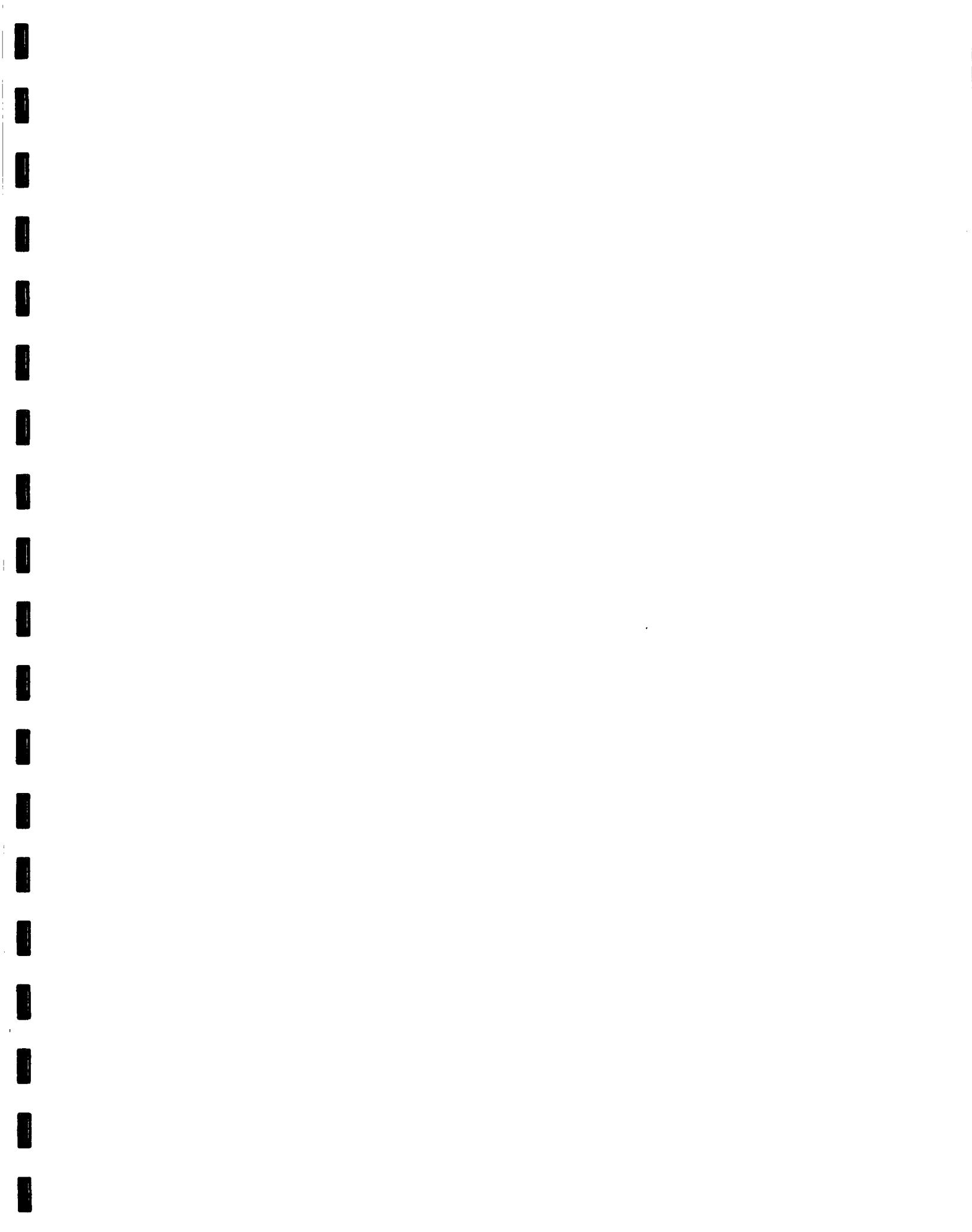
Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1	1.18	118	80 - 120	8/28/00

Sample: CCV (2) QC Batch: QC04522

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1	0.864	86	80 - 120	8/28/00

Sample: ICV (1) QC Batch: QC04522

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1	1.14	114	80 - 120	8/28/00



6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

15

15

15

15

ANALYSIS REQUEST

(Circle or Specify Method No.)

LAB Order ID # 14000 82115

Phone #: 915 522 2133

Fax #: 915 522 2180

Company Name:

LAND - PERMAN

(Street, City, Zip)

1031 KENDRICKS WAY #115

Address:

BO VINCINO

Contact Person:

Invoice to:

(If different from above)

Project #: BPC

Project Name:

Subsurface Investigation

Sampler Signature:

Bo Vincino

Project Location:

ACRESIA, NEW MEXICO

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	MATRIX	PRESERVATIVE METHOD	SAMPLE	TIME	DATE	SAMPLING	
								Method	Time
151795	SB-6 0-1'	1	AIR	SLUDGE		9/17/1400	9/17/1400		
96	SB-6 20'	1	SOL			9/17/1400	9/17/1400		
97	SB-7 0-1'	1	WATER			9/17/1400	9/17/1400		
98	SB-7 20'	1				9/17/1500	9/17/1500		
99	SB-8 0-1'	1				9/17/1200	9/17/1200		
800	SB-8 20'	1	TOR			9/17/230	9/17/230		
801	SB-9 0-1'	1	AIR			9/17/1445	9/17/1445		
802	SB-9 20'	1				9/17/1458	9/17/1458		
803	SB-10 0-1'	1				9/17/1600	9/17/1600		
804	SB-10 20'	1				9/17/1615	9/17/1615		

Relinquished by: Date: Time: Received by: Date: Time:
Bo Vincino 8/18/00 4:00PM Bo Vincino 8/18/00 5:00PM

Relinquished by: Date: Time: Received by: Date: Time:
Bo Vincino 8/18/00 6:30PM Bo Vincino 8/18/00 7:30PM

Relinquished by: Date: Time: Received at Laboratory by: Date: Time:
Bo Vincino 8/18/00 Bo Vincino 8/18/00 9:30AM

Relinquished by: Date: Time: Log-in Review
Bo Vincino 8/18/00

Carrier #

Bo Vincino

Turn Around Time if different from standard
Hold
BOD, TSS, PH
Pesticides 8081A/608
GC/MS Semi. Vol. 8270C/625
GC-MS Vol. 8260B/624
RCI
TCLP Semivolatileles
TCLP Volatiles
TCLP Metals Ag As Ba Cd Cr Pb Se Hg
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/2007
PAH 8270C
TPH 418-717X1005 8015
MTBE 8021B/602
BTEx 8021B/602
METH 8021B/602

REMARKS:
NO LAB USES ONLY

Intact Y / N

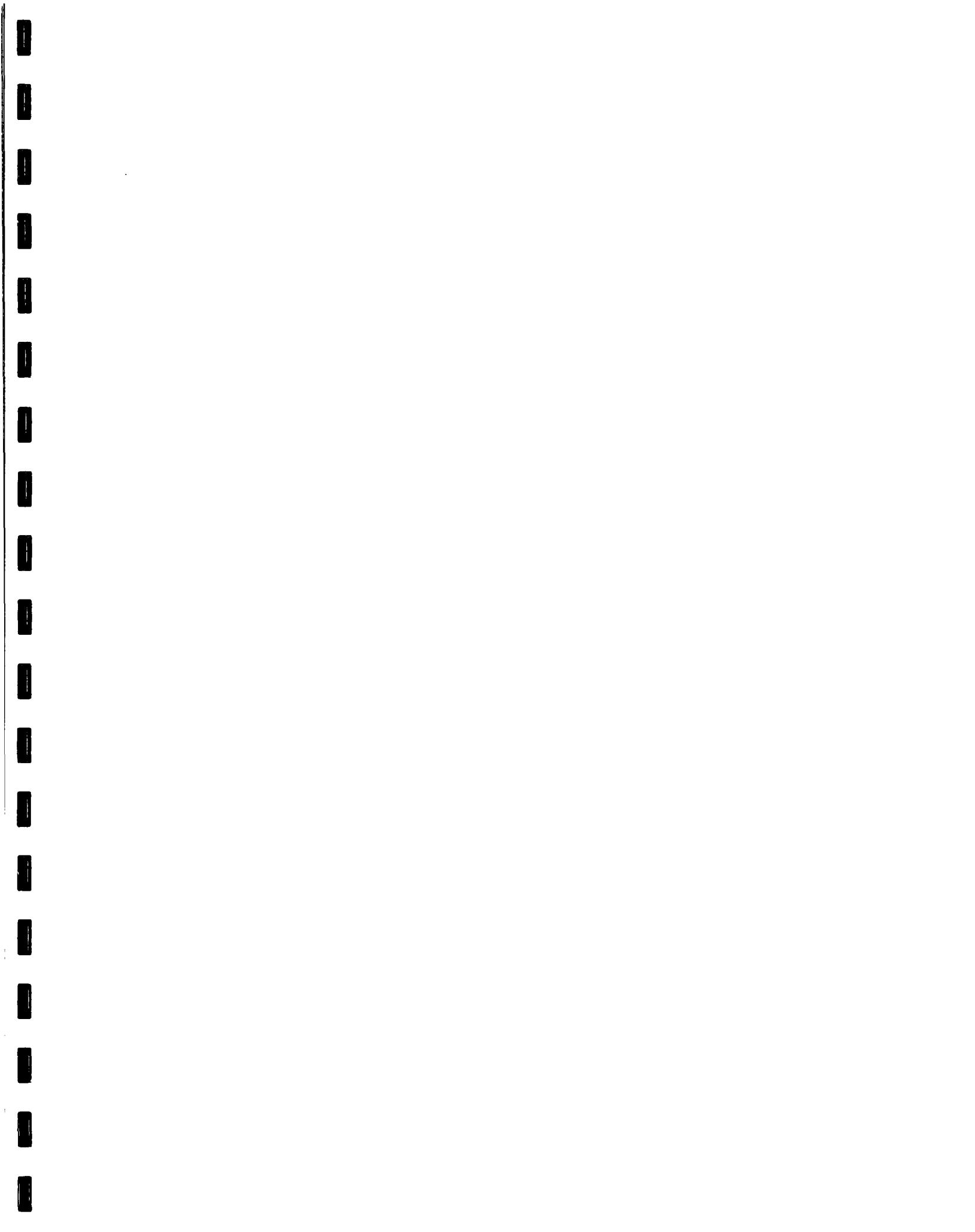
Headspace Y / N

Temp Y / N

Log-in Review

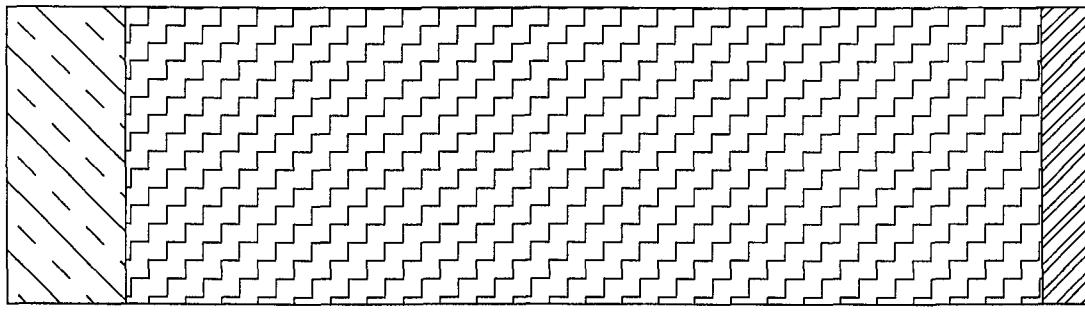
Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 10 sample parts

Carrier # Bo Vincino



Comments and Lithology

Graphic Log	PID Reading (ppm)	Sampling Device	Sample Interval (feet bgs)	USCS Symbol	
-	-	Cuttings	1'		1' - Brown Clay, No Moisture, No Odor
-	0.0	Cuttings	2'		2' - Brown Clay, No Moisture, No Odor
2' -	0.0	Cuttings	3'		3' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	0.0	Cuttings	4'		4' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	0.0	Cuttings	5'		5' - Tan Caliche, Hard Limestone, No Moisture, No Odor
5' -	0.0	Cuttings	6'		6' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	0.0	Cuttings	7'		7' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	0.0	Cuttings	8'		8' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	0.0	Cuttings	9'		9' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	0.0	Cuttings	10'		10' - Tan Caliche, Hard Limestone, No Moisture, No Odor
10' -	0.0	Cuttings	11'		11' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	0.0	Cuttings	12'		12' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	0.0	Cuttings	13'		13' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	0.0	Cuttings	14'		14' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	0.0	Cuttings	15'		15' - Tan Caliche, Hard Limestone, No Moisture, No Odor
15' -	0.0	Cuttings	16'		16' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	0.0	Cuttings	17'		17' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	0.0	Cuttings	18'		18' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	0.0	Cuttings	19'		19' - Dark Brown Clayey Soil, Slight Moisture, No Odor
-	0.0	Cuttings	20'		20' - Dark Brown Clayey Soil, Slight Moisture, No Odor
20' -					20' - Total Depth
Ft below ground surface					



LPE Environmental
Llano-Petman Environmental Services

Date: 8-25-00
 Drilling Method: Air Rotary
 Bit Diameter: 5-5/8 Inch

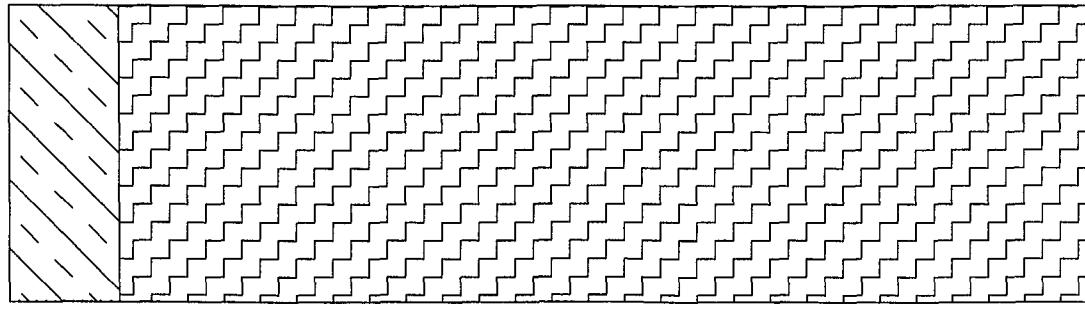
Logger: Bo Vizcaino
 Driller: Straub Corporation
 Date Completed: 8-17-00

Baker Petrolite Corporation
 Industrial Avenue & SR 229, Artesia, NM
 Subsurface Investigation
 Soil Boring SB-01

Comments and Lithology

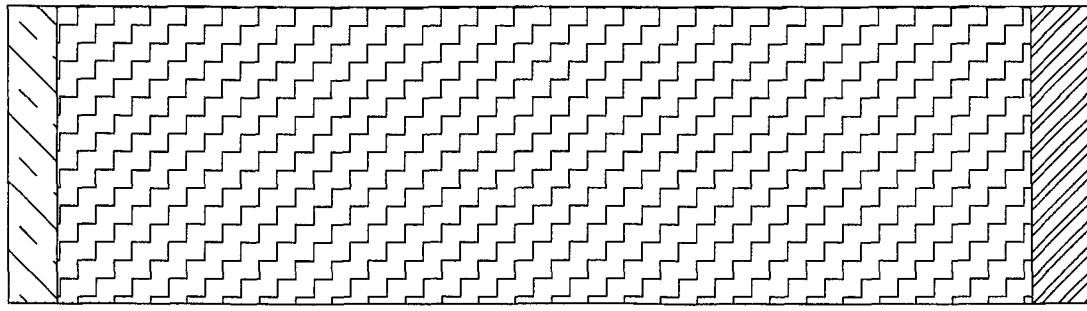
Graphic Log	PID Reading (ppm)	Sampling Device	Sample Interval (feet bgs)	USCS Symbol	Comments and Lithology
-	1' -	Cuttings	1'		1' - Brown Clay, No Moisture, No Odor
-	2' -	Cuttings	2'		2' - Brown Clay, No Moisture, No Odor
-	3' -	Cuttings	3'		3' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	4' -	Cuttings	4'		4' - Tan Caliche, Hard Limestone, No Moisture, No Odor
5 -	5' -	Cuttings	5'		5' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	6' -	Cuttings	6'		6' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	7' -	Cuttings	7'		7' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	8' -	Cuttings	8'		8' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	9' -	Cuttings	9'		9' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	10' -	Cuttings	10'		10' - Tan Caliche, Hard Limestone, No Moisture, No Odor
10 -	11' -	Cuttings	11'		11' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	12' -	Cuttings	12'		12' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	13' -	Cuttings	13'		13' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	14' -	Cuttings	14'		14' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	15 -	Cuttings	15'		15' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	16' -	Cuttings	16'		16' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	17' -	Cuttings	17'		17' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	18' -	Cuttings	18'		18' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	19' -	Cuttings	19'		19' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	20 -	Cuttings	20'		20' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-					20' - Total Depth

Ft below ground surface



Comments and Lithology

Graphic Log	PID Reading (ppm)	Sampling Device	Sample Interval (feet bgs)	USCS Symbol	Comments and Lithology
-	1' -	0.0 Cuttings	1'		1' - Brown Clay, No Moisture, No Odor
-	2' -	0.0 Cuttings	2'		2' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	3' -	0.0 Cuttings	3'		2' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	4' -	0.0 Cuttings	4'		4' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	5' -	0.0 Cuttings	5'		5' - Tan Caliche, Hard Limestone, No Moisture, No Odor
5 -	6' -	0.0 Cuttings	6'		6' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	7' -	0.0 Cuttings	7'		7' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	8' -	0.0 Cuttings	8'		8' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	9' -	0.0 Cuttings	9'		9' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	10' -	0.0 Cuttings	10'		10' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	11' -	0.0 Cuttings	11'		11' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	12' -	0.0 Cuttings	12'		12' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	13' -	0.0 Cuttings	13'		13' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	14' -	0.0 Cuttings	14'		14' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	15' -	0.0 Cuttings	15'		15' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	16' -	0.0 Cuttings	16'		16' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	17' -	0.0 Cuttings	17'		17' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	18' -	0.0 Cuttings	18'		18' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	19' -	0.0 Cuttings	19'		19' - Dark Brown Clayey Soil, Slight Moisture, No Odor
-	20' -	0.0 Cuttings	20'		20' - Dark Brown Clayey Soil, Slight Moisture, No Odor
					20' - Total Depth
					Ft. below ground surface



Ft. below ground surface

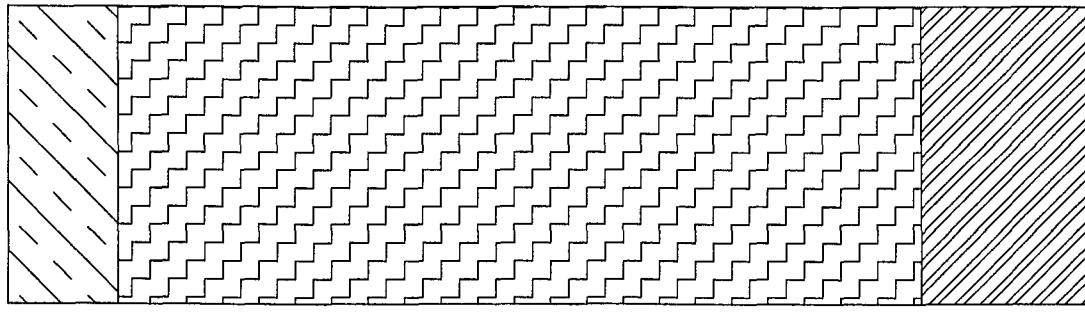
Llano-Permian Environmental Services
Llano-Permian Environmental Services

Date: 8-25-00
 Drilling Method: Air Rotary
 Bit Diameter: 5-5/8 Inch

Logger: Bo Vizcaino
 Driller: Straub Corporation
 Date Completed: 8-17-00

Baker Petrolite Corporation
 Industrial Avenue & SR 229, Artesia, NM
 Subsurface Investigation
 Soil Boring SB-3

Graphic Log



Feet below ground surface

PID Reading (ppm)	Sampling Device	Sample Interval (feet bgs)	USCS Symbol	Comments and Lithology	
				Cuttings	Cuttings
-	1' -	0.0	1'	1' - Brown Clay, No Moisture, No Odor	
-	2' -	0.0	2'	2' - Brown Clay, No Moisture, No Odor	
-	3' -	0.0	3'	3' - Tan Caliche, Hard Limestone, No Moisture, No Odor	
-	4' -	0.0	4'	4' - Tan Caliche, Hard Limestone, No Moisture, No Odor	
-	5' -	0.0	5'	5' - Tan Caliche, Hard Limestone, No Moisture, No Odor	
-	6' -	0.0	6'	6' - Tan Caliche, Hard Limestone, No Moisture, No Odor	
-	7' -	0.0	7'	7' - Tan Caliche, Hard Limestone, No Moisture, No Odor	
-	8' -	0.0	8'	8' - Tan Caliche, Hard Limestone, No Moisture, No Odor	
-	9' -	0.0	9'	9' - Tan Caliche, Hard Limestone, No Moisture, No Odor	
-	10' -	0.0	10'	10' - Tan Caliche, Hard Limestone, No Moisture, No Odor	
-	11' -	0.0	11'	11' - Tan Caliche, Hard Limestone, No Moisture, No Odor	
-	12' -	0.0	12'	12' - Tan Caliche, Hard Limestone, No Moisture, No Odor	
-	13' -	0.0	13'	13' - Tan Caliche, Hard Limestone, No Moisture, No Odor	
-	14' -	0.0	14'	14' - Tan Caliche, Hard Limestone, No Moisture, No Odor	
-	15' -	0.0	15'	15' - Tan Caliche, Hard Limestone, No Moisture, No Odor	
-	16' -	0.0	16'	16' - Tan Caliche, Hard Limestone, No Moisture, No Odor	
-	17' -	0.0	17'	17' - Dark Brown Clayey Soil, Slight Moisture, No Odor	
-	18' -	0.0	18'	18' - Dark Brown Clayey Soil, Slight Moisture, No Odor	
-	19' -	0.0	19'	19' - Dark Brown Clayey Soil, Slight Moisture, No Odor	
-	20' -	0.0	20'	20' - Dark Brown Clayey Soil, Slight Moisture, No Odor	
				20' - Total Depth	

Llano-Pennian Environmental Services
Llano-Pennian Environmental Services

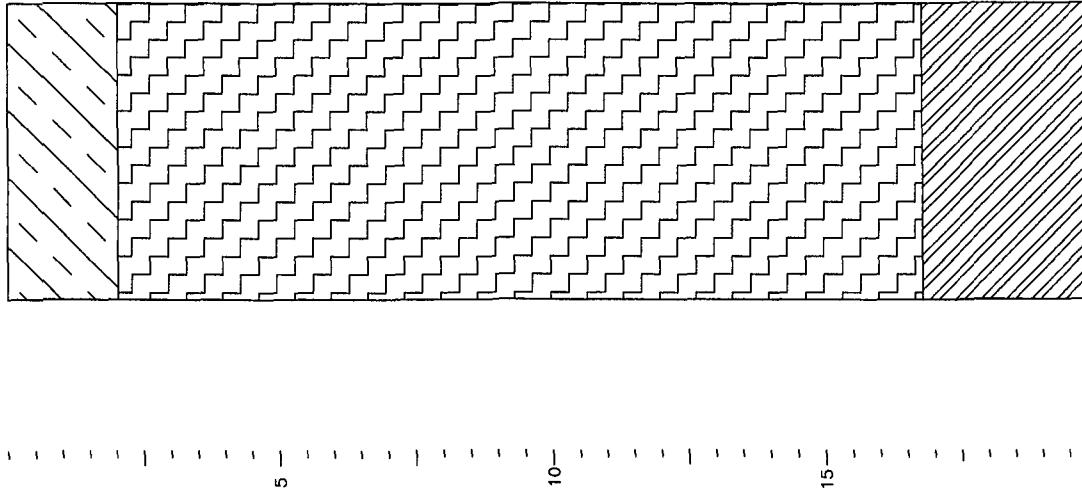
Date: 8-25-00
Drilling Method: Air Rotary
Bit Diameter: 5-5/8 Inch

Logger: Bo Vizcaino
Driller: Straub Corporation
Date Completed: 8-17-00

Baker Petrolite Corporation
Industrial Avenue & SR 229, Artesia, NM
Subsurface Investigation
Soil Boring SB-4

Comments and Lithology

Graphic Log	PID Reading (ppm)	Sampling Device	Sample Interval (feet bgs)	USCS Symbol	
-	1'	Cuttings	1'		1' - Brown Clay, No Moisture, No Odor
-	2'	Cuttings	2'		2' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	3'	Cuttings	3'		3' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	4'	Cuttings	4'		4' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	5'	Cuttings	5'		5' - Tan Caliche, Hard Limestone, No Moisture, No Odor
5 -	6'	Cuttings	6'		6' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	7'	Cuttings	7'		7' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	8'	Cuttings	8'		8' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	9'	Cuttings	9'		9' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	10'	Cuttings	10'		10' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	11'	Cuttings	11'		11' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	12'	Cuttings	12'		12' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	13'	Cuttings	13'		13' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	14'	Cuttings	14'		14' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	15'	Cuttings	15'		15' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	16'	Cuttings	16'		16' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	17'	Cuttings	17'		17' - Dark Brown Clayey Soil, Slight Moisture, No Odor
-	18'	Cuttings	18'		18' - Dark Brown Clayey Soil, Slight Moisture, No Odor
-	19'	Cuttings	19'		19' - Dark Brown Clayey Soil, Slight Moisture, No Odor
-	20'	Cuttings	20'		20' - Dark Brown Clayey Soil, Slight Moisture, No Odor
20 -					20' - Total Depth



Llano-Permian Environmental Services

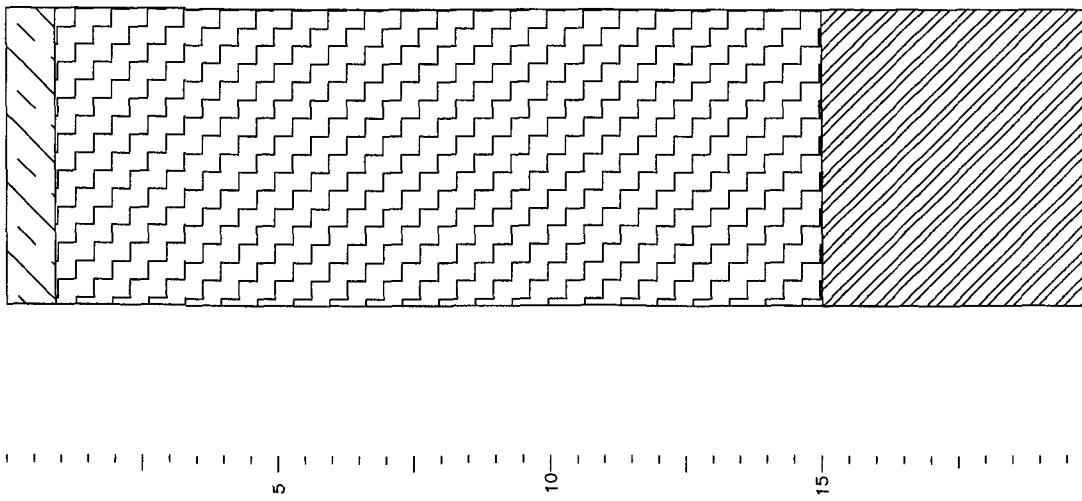
Date: 8-25-00
Drilling Method: Air Rotary
Bit Diameter: 5-5/8 Inch

Logger: Bo Vizcaino
Driller: Straub Corporation
Date Completed: 8-17-00

Baker Petrolite Corporation
Industrial Avenue & SR 229, Artesia, NM
Subsurface Investigation
Soil Boring SB-5

Comments and Lithology

Graphic Log	PID Reading (ppm)	Sampling Device	Sample Interval (feet bgs)	USCS Symbol	
-	1' -	Cuttings	1'		1' - Brown Clay, No Moisture, Very Slight Odor
-	2' -	Cuttings	2'		2' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	3' -	Cuttings	3'		2' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	4' -	Cuttings	4'		4' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	5' -	Cuttings	5'		5' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	6' -	Cuttings	6'		6' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	7' -	Cuttings	7'		7' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	8' -	Cuttings	8'		8' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	9' -	Cuttings	9'		9' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	10' -	Cuttings	10'		10' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	11' -	Cuttings	11'		11' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	12' -	Cuttings	12'		12' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	13' -	Cuttings	13'		13' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	14' -	Cuttings	14'		14' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	15' -	Cuttings	15'		15' - Dark Brown Clayey Soil, Slight Moisture, No Odor
-	16' -	Cuttings	16'		16' - Dark Brown Clayey Soil, Slight Moisture, No Odor
-	17' -	Cuttings	17'		17' - Dark Brown Clayey Soil, Slight Moisture, No Odor
-	18' -	Cuttings	18'		18' - Dark Brown Clayey Soil, Slight Moisture, No Odor
-	19' -	Cuttings	19'		19' - Dark Brown Clayey Soil, Slight Moisture, No Odor
-	20' -	Cuttings	20'		20' - Dark Brown Clayey Soil, Slight Moisture, No Odor
					20' - Total Depth



LPE Environmental
Llano-Pennian Environmental Services

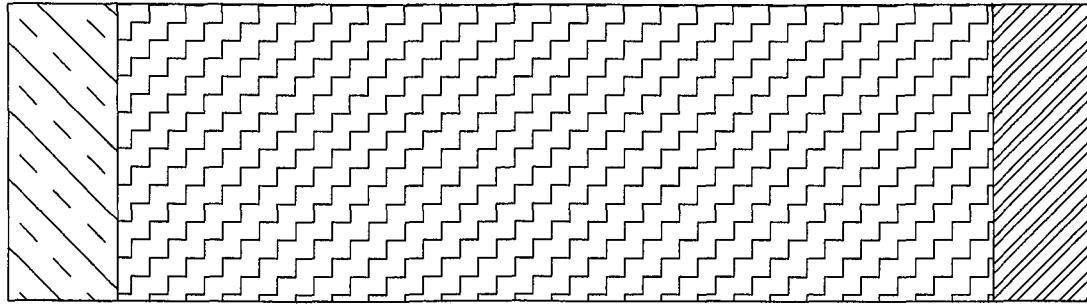
Date: 8-25-00
Drilling Method: Air Rotary
Bit Diameter: 5-5/8 Inch

Logger: Bo Vizcaino
Driller: Straub Corporation
Date Completed: 8-17-00

Baker Petrolite Corporation
Industrial Avenue & SR 229, Artesia, NM
Subsurface Investigation
Soil Boring SB-6

Comments and Lithology

Graphic Log	PID Reading (ppm)	Sampling Device	Sample Interval (feet bgs)	USCS Symbol	Comments and Lithology
-	-	Cuttings	1'		1' - Brown Clay, No Moisture, No Odor
-	0.0	Cuttings	2'		2' - Tan Caliche, Hard Limestone, No Moisture, No Odor
2'	0.0	Cuttings	2'		3' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	0.0	Cuttings	3'		4' - Tan Caliche, Hard Limestone, No Moisture, No Odor
3'	0.0	Cuttings	4'		5' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	0.0	Cuttings	5'		6' - Tan Caliche, Hard Limestone, No Moisture, No Odor
4'	0.0	Cuttings	6'		7' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	0.0	Cuttings	7'		8' - Tan Caliche, Hard Limestone, No Moisture, No Odor
5'	0.0	Cuttings	8'		9' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	0.0	Cuttings	9'		10' - Tan Caliche, Hard Limestone, No Moisture, No Odor
6'	0.0	Cuttings	10'		11' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	0.0	Cuttings	11'		12' - Tan Caliche, Hard Limestone, No Moisture, No Odor
7'	0.0	Cuttings	12'		13' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	0.0	Cuttings	13'		14' - Tan Caliche, Hard Limestone, No Moisture, No Odor
8'	0.0	Cuttings	14'		15' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	0.0	Cuttings	15'		16' - Tan Caliche, Hard Limestone, No Moisture, No Odor
9'	0.0	Cuttings	16'		17' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	0.0	Cuttings	17'		18' - Dark Brown Clayey Soil, Slight Moisture, No Odor
10-	0.0	Cuttings	18'		19' - Dark Brown Clayey Soil, Slight Moisture, No Odor
-	0.0	Cuttings	19'		20' - Dark Brown Clayey Soil, Slight Moisture, No Odor
10-	0.0	Cuttings	20'		20' - Total Depth



Ft below ground surface

Comments and Lithology			
Graphic Log	PID Reading (ppm)	Sampling Device	USCS Symbol
	Sample Interval (feet bgs)		
-	1'	Cuttings	1'
-	2'	Cuttings	2'
-	3'	Cuttings	3'
-	4'	Cuttings	4'
-	5'	Cuttings	5'
-	6'	Cuttings	6'
-	7'	Cuttings	7'
-	8'	Cuttings	8'
-	9'	Cuttings	9'
-	10'	Cuttings	10'
-	11'	Cuttings	11'
-	12'	Cuttings	12'
-	13'	Cuttings	13'
-	14'	Cuttings	14'
-	15'	Cuttings	15'
-	16'	Cuttings	16'
-	17'	Cuttings	17'
-	18'	Cuttings	18'
-	19'	Cuttings	19'
-	20'	Cuttings	20'
			20' - Total Depth

Ft below ground surface

LPE Environmental
Llano-Permian Environmental Services

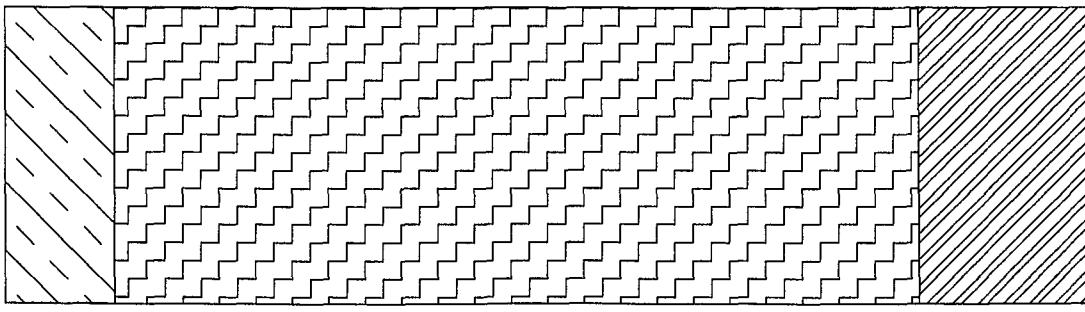
Date: 8-25-00
Drilling Method: Air Rotary
Bit Diameter: 5-5/8 Inch

Logger: Bo Vizcaino
Driller: Straub Corporation
Date Completed: 8-17-00

Baker Petrolite Corporation
Industrial Avenue & SR 229, Artesia, NM
Subsurface Investigation
Soil Boring SB-8

Comments and Lithology

Graphic Log	PID Reading (ppm)	Sampling Device	Sample Interval (feet bgs)	USCS Symbol	
-	1' -	Cuttings	1'		1' - Brown Clay, No Moisture, No Odor
-	2' -	Cuttings	2'		2' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	3' -	Cuttings	3'		3' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	4' -	Cuttings	4'		4' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	5' -	Cuttings	5'		5' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	6' -	Cuttings	6'		6' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	7' -	Cuttings	7'		7' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	8' -	Cuttings	8'		8' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	9' -	Cuttings	9'		9' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	10' -	Cuttings	10'		10' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	11' -	Cuttings	11'		11' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	12' -	Cuttings	12'		12' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	13' -	Cuttings	13'		13' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	14' -	Cuttings	14'		14' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	15' -	Cuttings	15'		15' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	16' -	Cuttings	16'		16' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	17' -	Cuttings	17'		17' - Dark Brown Clayey Soil, Slight Moisture, No Odor
-	18' -	Cuttings	18'		18' - Dark Brown Clayey Soil, Slight Moisture, No Odor
-	19' -	Cuttings	19'		19' - Dark Brown Clayey Soil, Slight Moisture, No Odor
-	20' -	Cuttings	20'		20' - Dark Brown Clayey Soil, Slight Moisture, No Odor
					20' - Total Depth



Ft below ground surface

LJPD Environmental
Llano-Permian Environmental Services

Date: 8-25-00
Drilling Method: Air Rotary
Bit Diameter: 5-5/8 Inch

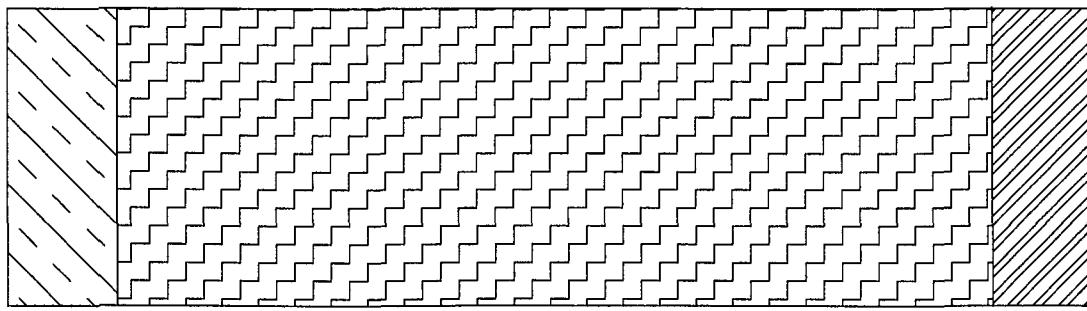
Logger: Bo Vizcaino
Driller: Straub Corporation
Date Completed: 8-17-00

Baker Petrolite Corporation
Industrial Avenue & SR 229, Artesia, NM
Subsurface Investigation
Soil Boring SB-9

Comments and Lithology

Graphic Log	PID Reading (ppm)	Sampling Device	Sample Interval (feet bgs)	USCS Symbol	
-	1'	Cuttings	1'		1' - Brown Clay, No Moisture, No Odor
-	-	Cuttings	2'		2' - Tan Caliche, Hard Limestone, No Moisture, No Odor
2'	0.0	Cuttings	2'		
-	3'	Cuttings	3'		3' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	4'	Cuttings	4'		4' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	5'	Cuttings	5'		5' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	6'	Cuttings	6'		6' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	7'	Cuttings	7'		7' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	8'	Cuttings	8'		8' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	9'	Cuttings	9'		9' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	10'	Cuttings	10'		10' - Tan Caliche, Hard Limestone, No Moisture, No Odor
10-	11'	Cuttings	11'		11' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	12'	Cuttings	12'		12' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	13'	Cuttings	13'		13' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	14'	Cuttings	14'		14' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	15-	Cuttings	15'		15' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	16'	Cuttings	16'		16' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	17-	Cuttings	17'		17' - Tan Caliche, Hard Limestone, No Moisture, No Odor
-	18'	Cuttings	18'		18' - Dark Brown Clayey Soil, Slight Moisture, No Odor
-	19-	Cuttings	19'		19' - Dark Brown Clayey Soil, Slight Moisture, No Odor
-	20-	Cuttings	20'		20' - Dark Brown Clayey Soil, Slight Moisture, No Odor
					20' - Total Depth

Ft below ground surface



LPE Environmental
Llano-Permian Environmental Services

Date: 8-25-00
Drilling Method: Air Rotary
Bit Diameter: 5-5/8 Inch

Logger: Bo Vizcaino
Driller: Straub Corporation
Date Completed: 8-17-00

Baker Petrolite Corporation
Industrial Avenue & SR 229, Artesia, NM
Subsurface Investigation
Soil Boring SB-10

