GW-20

REPORTS

YEAR(S):

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2004-2003



10601 Lomas NE Suite 106 Albuquerque, NM 87112

505-237-8440

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DEC 0 1 2000

Environmental Bureau
Oil Conservation Division

November 27, 2000

Mr. Wayne Price New Mexico Oil Conservation Division Environmental Bureau 2040 S. Pacheco Santa Fe, New Mexico 87505

RE: Maljamar Gas Plant, Maljamar, New Mexico Vadose Zone Investigation of South Storage Area To Support Section 14 A., Discharge Plan GW-020 Renewal

Dear Mr. Price:

On behalf of Conoco Inc. (Conoco) Maxim Technologies, Inc. (Maxim) conducted a subsurface investigation on September 28, 2000 at the South Storage Area of the Maljamar Gas Plant. The investigation was conducted by Maxim personnel according to the guidelines put forth in the workplan forwarded to your office and approved on July 27, 2000. That plan and this investigation were precipitated by a request received from the New Mexico Energy, Minerals, and Natural Resources Department, Oil Conservation Division (OCD) in the Groundwater Discharge Plan GW-0202 Renewal document issued by OCD and dated May 28, 2000.

BACKGROUND

The affected area at the South Storage Area covers approximately 36,000 square feet south of the facilities at the Maljamar Gas Plant (Figure 1). Conoco used the area for storage of non-essential and out of service equipment. When the site was inspected by OCD in May 2000, several 55-gallon drums were reported in storage. These drums were subsequently removed from the area. Maxim visited the site on June 22, 2000 and noted several meter houses, an empty 200-gallon storage tank, and assorted soil stockpiles in the area. The stockpiled soil was derived from cleanup of a condensate spill, and was stored on bermed plastic containment areas. At the time of the vadose zone investigation (September 28, 2000), the South Storage Area had been completely cleared of all equipment and soil piles. There was no evidence of soil staining in the storage area.





Maxim submitted a work plan to address OCD's concerns about potential subsurface and surface soil contamination at the South Storage Area for their review and concurrence. Key points in the work plan included:

- Ten borings were planned for advancement in or near areas of current or historical storage activity. Soil samples were to be collected from each of the borings, and if sufficient contamination were encountered, additional borings would be advanced. Based on previous work in the area, the borings were not expected to exceed 40 feet below the ground surface (bgs).
- Soil samples were logged according to the Unified Soil classification System and field screened with a photo-ionization detector (PID) to detect the presence of volatile organic vapors. Usually the interval exhibiting the highest PID.
- Sampling equipment was decontaminated between each boring installation. Decontamination water was contained and disposed of correctly on site. Drill cuttings and excess soil sample were placed on plastic for later collection and disposal on site.
- Four samples were collected from the 0" to 6" bgs sample interval for analysis. The purpose of this program was to profile contaminant distribution with depth and provide data for determination of acceptable risk-based closure levels.
- In addition to the four composite shallow samples, one soil sample was to be collected from each soil boring for analysis. The soil samples were analyzed for BTEX, gasoline range organics, diesel range organics, major ions, and eight RCRA metals.

SOIL ASSESSMENT

The work plan was reviewed and approved by the OCD. Work commenced at the site on September 28, 2000 and field activities were completed that day. Maxim provided field oversight on soil boring activities conducted by Harrison and Cooper, Inc. Ten borings were advanced (designated B-1-B through B-10-B) in a cleared area known to have served as a storage/laydown yard south of the Maljamar plant site. Samples were obtained by using a 2-foot continuous, 2-inch diameter split spoon where possible. If the material was too well consolidated or if rock was encountered, samples were caught from drill cuttings.

To maximize the utility of this investigation, soil borings were field-located on the perimeter of the site or near areas of special interest within the storage yard location (Figure 2):

- Boring B-1-B Near the north perimeter of the storage area;
- Boring B-2-B In an area used for drum storage;
- Boring B-3-B In an area used for meter storage;
- Boring B-4-B On the west perimeter of the storage area;

•	Boring B-5-B	On the southwest perimeter of the storage area:
•	Boring B-6-B	In an area used for storage of excavated soil;
•	Boring B-7-B	Near an area used for soil storage adjacent to the south perimeter;
•	Boring B-8-B	In an area where soil was stored on visqueen;
•	Boring B-9-B	In an area where miscellaneous items were stored; and
•	Boring B-10-B	Near the northeast perimeter of the storage area.

Site Soils and Hydrogeology

The soil borings generally encountered silty sand and some caliche, ranging in color from orange/tan to dark brown (Attachment A). Some of the sandstone encountered at depths greater than ten feet was too well consolidated to allow sampling with the split spoon. Bulk drill samples were caught in these intervals. No appreciable moisture was encountered, even though in some intervals, the sand appeared slightly damp. No groundwater was discovered in any of the holes. Most of the borings were terminated at approximately 20 feet bgs if no appreciable contaminants were noted in field-testing of sample material. If PID readings indicated potential contamination, the borings were continued until PID readings returned to less than 10 parts per million (ppm).

Field Screening

Sample headspace analyses were run on-site by placing samples composited over a sample interval (usually either a five-foot or two-foot composite) into re-sealable plastic bags. The samples were allowed to volatilize in the bags for about fifteen minutes per OCD guidance. The headspace vapors were then tested by a photo-ionization detector, which detects low levels of petroleum hydrocarbons and other low molecular weight organic compounds in parts-per-million concentrations. PID readings on samples collected for analyses ranged as follows:

```
B-1-B
               0.4 - 0.8 \text{ ppm}
 B-2-B
               0.0 - 0.9 \text{ ppm}
               0.5 - 7.9 \text{ ppm}
B-3-B
               0.6 - 1.3 \text{ ppm}
B-4-B
B-5-B
               0.7 - 2.1 \text{ ppm}
               1.8 - 827.6 ppm
B-6-B
B-7-B
               3.3 - 977.2 \text{ ppm}
B-8-B
               0.8 - 1.2 \text{ ppm}
               0.7 - 3.0 \text{ ppm}
B-9-B
 B-10-B
               0.1 - 0.7 \text{ ppm}
```

The soil boring logs have been attached to this report in Attachment A. Each log describes sample intervals with respect to soil/rock type and PID reading.

Soil Sampling and Analysis

One soil sample was collected from each soil boring for shipment to a laboratory for analysis. Samples were pulled from the interval exhibiting the highest PID reading. *Maxim Technologies, Inc.*

Additional surface samples (0-6) bgs) were gathered from borings B-1-B, B-2-B, B-3-B, and B-8-B. These surface areas were chosen for testing because each of these borings was specifically located in areas with high potential for surface contamination, (i.e. drum storage areas, meter storage areas, and soil storage areas). These samples were composited according to the work plan and forwarded to the lab for analysis.

All soil samples were placed as quickly as possible into factory-cleaned glass jars with Teflon-lined lids, placed on ice, and shipped to Severn-Trent Laboratories in Tampa, Florida. The soil samples were tested for volatile petroleum hydrocarbons (VPH), EPA method 8015B; benzene, toluene, ethylbenzene, and xylene, (BTEX), EPA method 8260B; Resource Recovery and Conservation Act metals by EPA method 6010B; and "general chemistry" major ions using appropriate MCAWW 300-series analytical methods. Table 1 lists a synopsis of analytical results for the sample testwork. Attachment B contains analytical results, method detection limits, and chain of custody records.

CONCLUSIONS

Based on the preceding discussions, the following conclusions can be drawn:

- Soil borings as placed in the September 28, 2000 sampling event have delineated the aerial extent of contamination in the South Storage Area;
- Soil contamination was encountered in the B-6-B boring from approximately 6 feet bgs to approximately 10 feet bgs. The boring was continued to a total depth of 30 feet bgs, with PID readings rapidly decreasing to 1.8 ppm. These readings indicate that the vertical extent of contamination has been delineated in this area;
- Soil contamination was encountered in the B-7-B boring from approximately 3 feet bgs to approximately 15 feet bgs. The boring was continued to 30 feet bgs, where PID readings rapidly decreased to 3.3 ppm. These readings indicate that the vertical extent of contamination has been delineated in the area of this boring;
- This study, coupled with results of monitoring well installations in adjacent Area 1, indicates that groundwater underlying the South Storage Area is deeper (approximately 90 feet bgs) than vertical contamination limits; therefore, potential for contamination to groundwater in the immediate area is minimal. Additional groundwater monitoring wells are planned to confirm this conclusion.
- The laboratory results for the soil composite sample indicated slightly elevated levels of mercury, arsenic, and lead as well as elevated levels of chromium and barium. Levels of these metals and metalloids in the soil were comparable to levels of those same materials encountered in the borings samples. Diesel range organics (DRO) were somewhat elevated.

RECOMMENDATIONS

Maxim recommends that a minimum of three additional soil samples be collected in the vicinity of borings B-6-B and B-7-B from the zone exhibiting the visible oil staining. These samples will be analyzed for BTEX, both DRO and gasoline range organics (GRO), as well as for synthetic precipitation leaching procedure (SPLP) to determine

what constituents are leaching from this horizon and at what concentrations. Also, during the installation of additional monitor wells, associated with the skimmer basin investigation, a temporary monitor well will be installed downgradient of the South Storage Area to support a risk based corrective action. Groundwater will be analyzed from BTEX, GRO and DRO. The results of this investigation will be used to determine the applicability of closing the area through a risk based corrective action approach. The use of a vadose zone model may be required to demonstrate the effectiveness of natural attenuation, coupled with the facts that there is no exposure and Conoco will retain control of the area

If you have any questions or comments regarding this report, please do not hesitate to call Clyde Yancey at 505-237-8440 or John Skopak at 281-293-5584. We would appreciate your review and approval of our plan presented herein at your earliest convenience.

Sincerely,

MAXIM TECHNOLOGIES, INC.

Clyde L. Yancey, P.G.

Senior Project Manager

Tom Tangen

Environmental Engineer

Attachments

Copy to:

John E. Skopak, Conoco Remediation Technology/Houston, TX Joyce M. Miley, Conoco NG&GP/Houston, TX

Rudy R. Quiroz, Conoco NG&GP/Maljamar, NM

Donna Williams, OCD/Hobbs, NM

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RCRA Metals mg/kg	Arsenic – 2.4 Barium – 122 Cadmium – <0.53 Lead – 4.1 Chromium – 5.4 Selenium - <1.3 Silver - <1.1 Mercury – <0.11	Arsenic – 1.2 Barium – 81.2 Cadmium – <0.58 Lead – 2.5 Chromium – <2.3 Selenium - <0.58 Silver - <1.2 Mercury – <.12	Arsenic – 1.6 Barium – 67.6 Cadmium – <0.6 Lead – 4.2 Chromium – <6.0 Selenium - <1.5 Silver - <1.2 Mercury – <.12
Major Cations and Anions mg/kg	Chloride - <5.3 Fluoride – 1.6 Nitrate as N - <2.6 Sulfate – 14.8	Chloride - <5.8 Fluoride - 1.9 Nitrate as N - <2.9 Sulfate - 9.5	Chloride - <6.0 Fluoride – 3.4 Nitrate as N - <3.0 Sulfate – <6.0
DRO mg/kg	- T	<12	×12
GRO mg/kg	<5.3	<5.8	<6.0
Total Xylenes mg/kg	<0.0053	<0.0058	>0.006
Ethyl- benzene mg/kg	<0.0053	<0.0058	900.0>
Toluene mg/kg	<0.0053	<0.0058	900.0>
Benzene mg/kg	<0.0053	<0.0058	900.0>
Sample ID	B-1 @ 13'	B-2 @ 18'-20'	B-3 @ 8'-10'

Sample ID	Benzene mg/kg	Toluene mg/kg	Ethyl- benzene mg/kg	Total Xylenes mg/kg	GRO mg/kg	DRO mg/kg	Major Cations and Anions mg/kg	RCRA Metals mg/kg
B-4 @ 5'-10"	<0.0061	<0.0061	<0.0061	<0.0061	<6.1	<12	Chloride - <6.1 Fluoride – 6.1 Nitrate as N - <3.1 Sulfate – 12.3	Arsenic – 1.6 Barium – 50.9 Cadmium – <0.61 Lead – 3.5 Chromium – 11.2 Selenium - <1.5 Silver - <1.2 Mercury – <.12
B-5 @ 5'-10'	<0.0059	<0.0059	<0.0059	<0.0059	<5.9	74	Chloride – 7.1 Fluoride – 2.0 Nitrate as N - <3.0 Sulfate – 10.9	Arsenic – 1.4 Barium – 20.7 Cadmium – <0.59 Lead – 2.7 Chromium – 56.9 Selenium - 0.41 Silver - <1.2 Mercury – <0.12
B-6 @ 5'-7'	<1.5	<1.5	16000	14000	480	2700	Chloride – 14.3 Fluoride – 1.2 Nitrate as N - <2.9 Sulfate – 9.0	Arsenic – 2.7 Barium – 43.5 Cadmium – <0.58 Lead – 4.8 Chromium – 66.6 Selenium - 0.62 Silver - <1.2 Mercury – 0.34

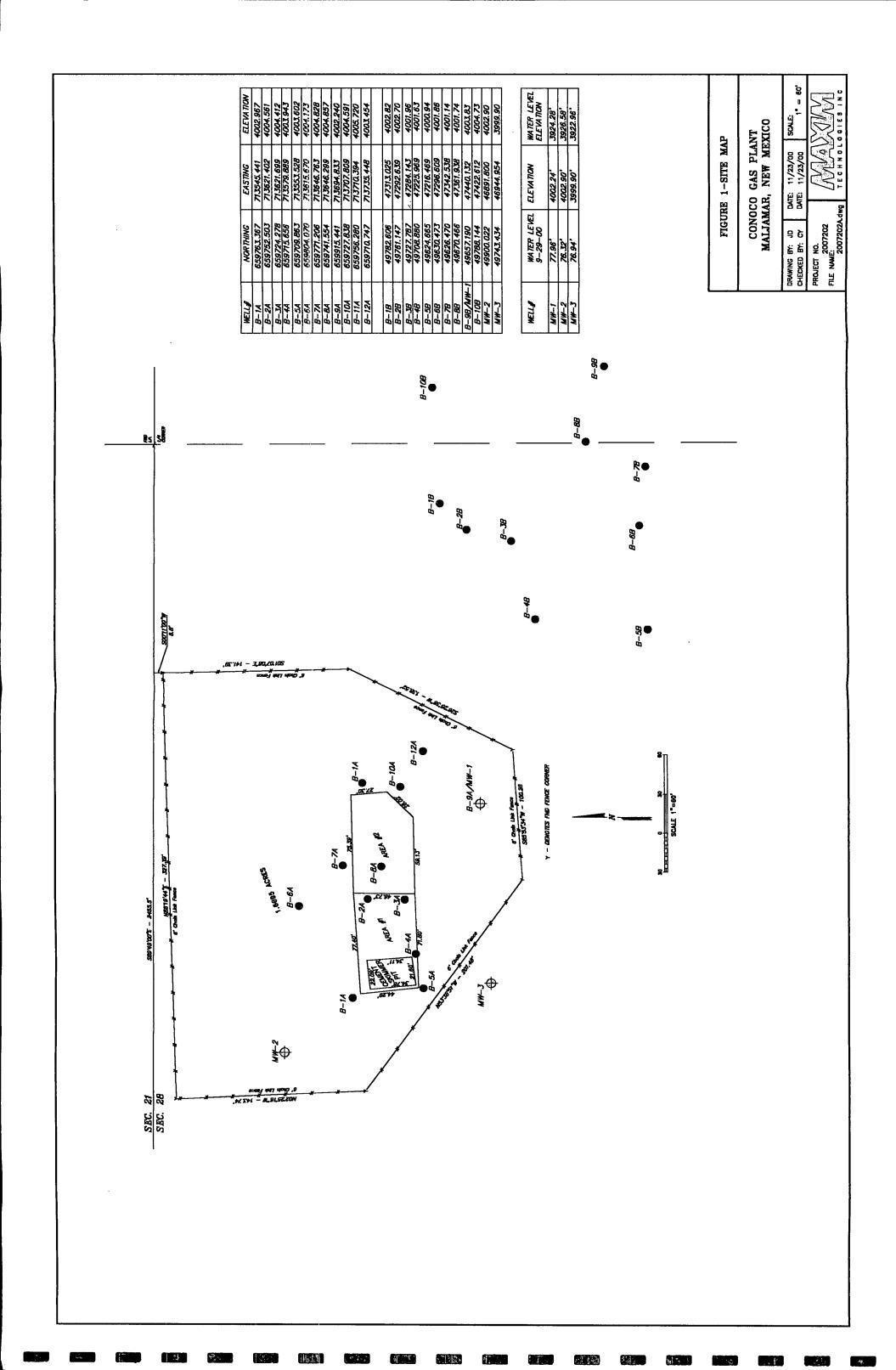
RCRA Metais mg/kg	Arsenic – 3.1 Barium – 43.9 Cadmium – <0.59 Lead – 5.5 Chromium – 16.9 Selenium – 0.96 Silver - <1.2 Mercury – 0.82	Arsenic – 1.5 Barium – 15.2 Cadmium – <0.57 Lead – 2.6 Chromium – 126 Selenium - 0.55 Silver - <1.1 Mercury – <0.11	Arsenic – 1.8 Barium – 99.6 Cadmium – <0.52 Lead – 4.7 Chromium – 46.6 Selenium - <1.3 Silver - <1.0
Major Cations and Anions mg/kg	Chloride – 31.8 Fluoride – <1.2 Nitrate as N - <3.0 Sulfate – 23.0	Chloride – 11.9 Fluoride – 1.2 Nitrate as N - <2.8 Sulfate – 12.2	Chloride – 38 Fluoride – 2.7 Nitrate as N – 46.6 Sulfate – 363
DRO mg/kg	3800	<u>^</u>	<10
GRO mg/kg	170	<5.7	<5.2
Total Xylenes mg/kg	2300	<0.0057	<0.0052
Ethyl- benzene mg/kg	3000	<0.0057	<0.0052
Toluene mg/kg	<0.3	<0.0057	<0.0052
Benzene mg/kg	<0.3	<0.0057	<0.0052
Sample ID	B-7 @ 5'-7'	B-8 @ 1.0'	B-9 @ 10'

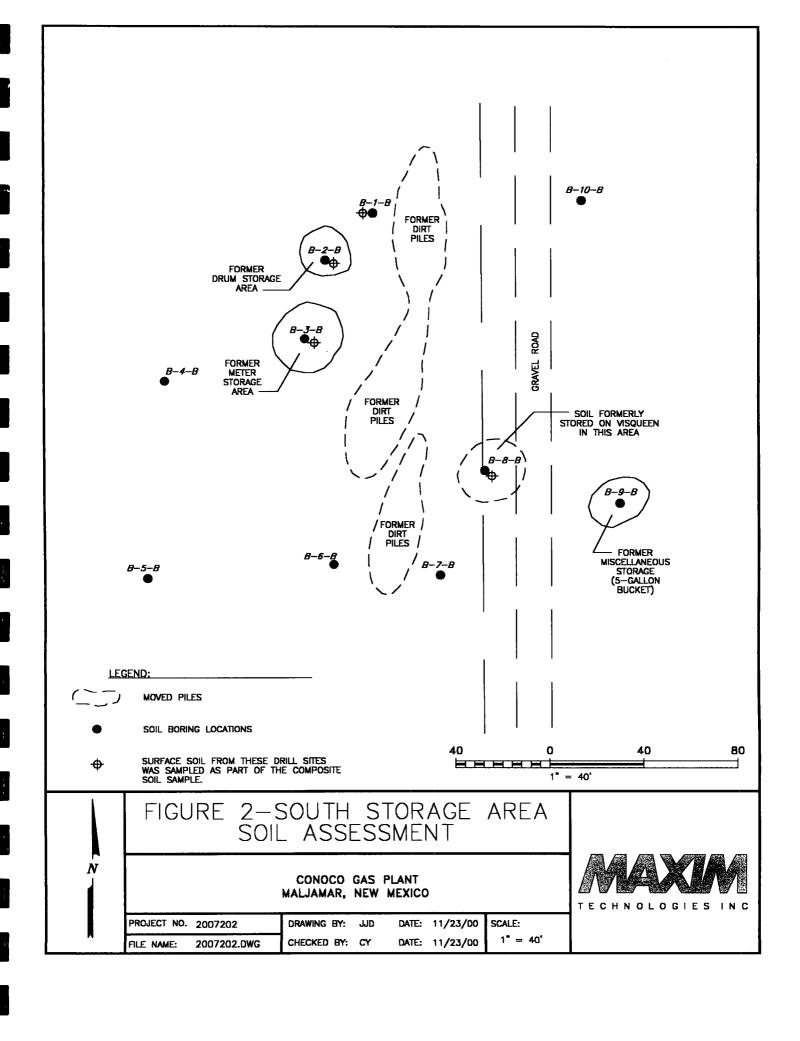
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		4
RGRA Metals mg/kg	Arsenic – 1.6 Barium – 11.5 Cadmium – <0.51 Lead – 1.6 Chromium – 2.2 Selenium - <0.25 Silver - <1.0 Mercury – <0.10	Arsenic – 1.2 Barium – 38.9 Cadmium – <0.53 Lead – 3.4 Chromium – 31.6 Selenium - <0.26 Silver - <1.1 Mercury – 0.15
Major Cations and Anions mg/kg	Chloride – <5.1 Fluoride – <1.0 Nitrate as N - <2.5 Sulfate – 7.6	Chloride – <5.3 Fluoride – <1.1 Nitrate as N - <2.6 Sulfate – <5.3
DRO mg/kg	۷10	47
GR© mg/kg	<5.1	<5.3
Total Xylenes mg/kg	<0.0051	<0.0053
Ethyl- benzene mg/kg	<0.0051	<0.0053
Toluene mg/kg	<0.0051	<0.0053
Benzene mg/kg	<0.0051	<0.0053
Sample ID	B-10 @ 5'	Surface Composite Sample

Results listed in mg/kg (parts per million; ppm). Analyses conducted at STL, Inc. in Tampa, Florida.

FIGURES





ATTACHMENT A

BORING/WELL #: B-1

PROJECT NO.: 2007207

LOCATION: MALJAMAR, NEW MEXICO

TOTAL DEPTH: 20.0'

SURFACE ELEV:

SCREEN: DIA: LENGTH: SIZE: CASING: DIA: LENGTH: TYPE:

DRILLING METHOD(S):

CLIENT: CONOCO, INC.

PROJECT: MALJAMAR GAS PLANT

WATER LEVEL: INITIAL: N/A

24 HOURS: N/A

BORE HOLE DIAMETER:

DRILLING COMPANY: HARRISON & COOPER

DATE DRILLED: 9/28/00

DRILLER:

OVERSIGHT: TANGEN

DEPTH FEET	SOIL DESCRIPTION	DESCRIPTION INTERVAL	SAMPLE INTERVAL	CORE Y N	OVM or Hnu (PPM)	GRAPHIC LOG	WELL DESIGN	DEPTH FEET
-	SAND, brown, dry	0.0'-2.0'	0.0'-0.5'	С	0.4			_
F			0.5'-2.0'	С	0.4] -
<u></u>	SAND, brown, moist	2.0'-18.0'						_
ļ			2.0'-5.0'	С	0.5			-
								-
- 5								5 -
-								
<u> </u>							;	
_								_
-								}
- 10								10 -
F]
F			13.0'					
F			13.0		0.8			1
F			13.0-15.0'	SS				
- 15			13.0-15.0	33	0.4			15 -
-								-
[
-								7
- 1	CALICHE, white	18.0-20.0					ĺ	
20-			18.0-20.0'	SS	0.5			-20-
-	Boring terminated at 20.0'							-
-								-
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-								
_ - 25							Ì	25 -
-								
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-								_
_]
- 30			•					30 -
F 30								30 7
F								-
F								
-								
<u> </u>				-				4
35-								35 ⁻

SS - DRIVEN SPLIT SPOON ST - PRESSED SHELBY TUBE

RC - ROCK CORE

CT - 5 FT CONTINUOUS SAMPLER AD - AIR DRILLING NR - NO READINGS TAKEN

HSA - HOLLOW STEM AUGER CFA - CONTINUOUS FLIGHT AUGERS

MD - MUD DRILLING C - CUTTINGS

WATER LEVEL

AFTER HOURS

SOIL SAMPLE SUBMITTED TO LAB воттом сар

SAND PACK

BENTONITE SEAL

FACTORY - SLOTTED WELL SCREEN

WELL CASING

BORING/WELL #: B-2

PROJECT NO.: 2007207

LOCATION: MALJAMAR, NEW MEXICO

TOTAL DEPTH: 20.0' SURFACE ELEV:

SCREEN: DIA: LENGTH: SIZE:

CASING: DIA: LENGTH: TYPE:

DRILLING METHOD(S):

CLIENT: CONOCO, INC.

PROJECT: MALJAMAR GAS PLANT

WATER LEVEL: INITIAL: N/A

24 HOURS: N/A

BORE HOLE DIAMETER:

DRILLING COMPANY: HARRISON & COOPER

DATE DRILLED: 9/28/00

DRILLER:

OVERSIGHT: TANGEN

DEPTH FEET	SOIL DESCRIPTION	DESCRIPTION INTERVAL	SAMPLE INTERVAL	CORE Y N	OVM or Hnu (PPM)	GRAPHIC LOG	WELL DESIGN	DEPT FEE
	SAND, dry	0.0'-2.0'						
			0.0'-2.0'	С	0.0			
	SAND, brown, dry	2.0'-8.0'						
	, o, a.e., a.,	2.0 0.0						
			5.0'	С				İ
5			5.0		0.8			5
	SAND, brown, moist	8.0'-13.0'						
			8.0'-10.0'	С	0.8			
10								10
	SAND, brown, moist	13.0-15.0'						
15			13.0-15.0'	SS	0.9			15
15	SAND, brown, dry	15.0-20.0'						10
			18.0-20.0'	SS				
20	Boring terminated at 20.0'		10.0 20.0		0.6			20
	boring terminated at 20.0							
25								25
								1
30								30
					~=			
								1
	•		•				•	}
35								L35

SS - DRIVEN SPLIT SPOON ST - PRESSED SHELBY TUBE

RC - ROCK CORE

CT - 5 FT CONTINUOUS SAMPLER AD - AIR DRILLING NR - NO READINGS TAKEN

HSA - HOLLOW STEM AUGER CFA - CONTINUOUS FLIGHT AUGERS

MD - MUD DRILLING

C - CUTTINGS

WATER LEVEL

TAFTER HOURS SOIL SAMPLE

SUBMITTED TO LAB

BOTTOM CAP

SAND PACK BENTONITE SEAL FACTORY - SLOTTED
WELL SCREEN

WELL CASING

BORING/WELL #: B-3

PROJECT NO.: 2007207

LOCATION: MALJAMAR, NEW MEXICO

TOTAL DEPTH: 30.0' SURFACE ELEV:

SCREEN: DIA: LENGTH: SIZE: CASING: DIA: LENGTH: TYPE:

DRILLING METHOD(S):

CLIENT: CONOCO, INC.

PROJECT: MALJAMAR GAS PLANT

WATER LEVEL: INITIAL: N/A

24 HOURS: N/A

BORE HOLE DIAMETER:

DRILLING COMPANY: HARRISON & COOPER

DATE DRILLED: 9/28/00

DRILLER:

OVERSIGHT: TANGEN

DEPTH FEET	SOIL DESCRIPTION	DESCRIPTION INTERVAL	SAMPLE INTERVAL	CORE Y N	OVM or Hnu (PPM)	GRAPHIC LOG	WELL DESIGN	DEPTH FEET
	SAND, tan, dry	0.0'-15.0'						
			0.0'-5.0'	С	1.1			
_								_
5								5
							,	
10			8.0'-10.0'	ss	7.9			100
10								10
].			
15			15.0'	С	3.4			15
13	SAND with rock fragments, dry	15.0-20.0'						13
					ŀ			
								İ
20			20.0'	С	5.6			20
20	SAND with rock fragments, moist	20.0-25.0'			-			20
								-
25			25.0'	С	0.6			25 -
	SAND with rock fragments, brown, moist	25.0-30.0'						
					:			
					:			
-30			30.0'	С	0.5			30
	Boring terminated at 30.0'							
	•					-		
								i .
35								-25
								35

SS - DRIVEN SPLIT SPOON

ST - PRESSED SHELBY TUBE

RC - ROCK CORE

CT - 5 FT CONTINUOUS SAMPLER

NR - NO READINGS TAKEN

HSA - HOLLOW STEM AUGER

CFA - CONTINUOUS FLIGHT AUGERS

 $\ensuremath{\mathsf{MD}}$ - $\ensuremath{\mathsf{MUD}}$ DRILLING

AD - AIR DRILLING

C - CUTTINGS

WATER LEVEL

 $\underline{\underline{\forall}}$ AT COMPLETION

¥ AFTER HOURS

SOIL SAMPLE
SUBMITTED TO LAB

SAND PACK

BENTONITE SEAL

BOTTOM CAP

FACTORY - SLOTTED
WELL SCREEN

WELL CASING

BORING/WELL #: B-4

PROJECT NO.: 2007207

LOCATION: MALJAMAR, NEW MEXICO

TOTAL DEPTH: 20.0'

SURFACE ELEV:

SCREEN: DIA: LENGTH: SIZE:

CASING: DIA: LENGTH: TYPE:

DRILLING METHOD(S):

CLIENT: CONOCO, INC.

PROJECT: MALJAMAR GAS PLANT

WATER LEVEL: INITIAL: N/A

24 HOURS: N/A

BORE HOLE DIAMETER:

DRILLING COMPANY: HARRISON & COOPER

DATE DRILLED: 9/28/00

DRILLER:

OVERSIGHT: TANGEN

DEPTH FEET	SOIL DESCRIPTION	DESCRIPTION INTERVAL	SAMPLE INTERVAL	CORE Y N	OVM or Hnu (PPM)	GRAPHIC LOG	WELL DESIGN	DEPTH FEET
	SAND	0.0'-5.0'						
-			0.0'-5.0'	С	0.9			
- 5	SAND, tan, dry	5.0'-10.0'						5
	SAND, tan, dry	5.0 - 10.0						
			5.0'-10.0'	С	1.3			
					1.0			
	+							
- 10	SAND with gravel fragments, tan, dry	10.0-20.0'		Ì				10
			10.0-15.0'	С	0.7			
i								
15	•							15
-			15.0-20.0'	С	0.6			
20								
20	Boring terminated at 20.0'							20
-								
25								25
- 30								30
30								30
		·						
35								35

SS - DRIVEN SPLIT SPOON

ST - PRESSED SHELBY TUBE

RC - ROCK CORE

CT - 5 FT CONTINUOUS SAMPLER AD - AIR DRILLING

NR - NO READINGS TAKEN

HSA - HOLLOW STEM AUGER

CFA - CONTINUOUS FLIGHT AUGERS

MD - MUD DRILLING

C - CUTTINGS

WATER LEVEL

☑ AT COMPLETION

AFTER HOURS

SOIL SAMPLE SUBMITTED TO LAB

ВОТТОМ САР

SAND PACK

BENTONITE SEAL

FACTORY - SLOTTED WELL SCREEN

WELL CASING

BORING/WELL #: B-5

PROJECT NO.: 2007207

LOCATION: MALJAMAR, NEW MEXICO

TOTAL DEPTH: 15.0' SURFACE ELEV:

SCREEN: DIA: LENGTH: SIZE:

CASING: DIA: LENGTH: TYPE:

DRILLING METHOD(S):

CLIENT: CONOCO, INC.

PROJECT: MALJAMAR GAS PLANT

WATER LEVEL: INITIAL: N/A

24 HOURS: N/A

BORE HOLE DIAMETER:

DRILLING COMPANY: HARRISON & COOPER

DATE DRILLED: 9/28/00

DRILLER:

OVERSIGHT: TANGEN

DEPTH FEET	SOIL DESCRIPTION	DESCRIPTION INTERVAL	SAMPLE INTERVAL	CORE Y N	OVM or Hnu (PPM)	GRAPHIC LOG	WELL DESIGN	DEPTI FEET
	SANDY SOIL, brown, dry	0.0'-5.0'						
			0.0'-5.0'	С	2.1			
E								5
5	SAND, brown, dry	5.0'-10.0'						3
			5.0'-10.0'	С	1.1			
10								10
10	SAND and CALICHE, brown	10.0-15.0'						10
15			15.0'	С	0.7			15
10	Boring terminated at 15.0'							
20	,							20
20								20
25								25
25								23
						1		
20								20
30								30
			,					
35					L			3 5

SS - DRIVEN SPLIT SPOON

ST - PRESSED SHELBY TUBE

RC - ROCK CORE

CT - 5 FT CONTINUOUS SAMPLER AD - AIR DRILLING

NR - NO READINGS TAKEN

HSA - HOLLOW STEM AUGER

CFA - CONTINUOUS FLIGHT AUGERS

MD - MUD DRILLING

C - CUTTINGS

AFTER HOURS SOIL SAMPLE SUBMITTED TO LAB

WATER LEVEL

ВОТТОМ САР

BENTONITE SEAL

SAND PACK

FACTORY - SLOTTED WELL SCREEN

WELL CASING

BORING/WELL #: B-6

PROJECT NO.: 2007207

LOCATION: MALJAMAR, NEW MEXICO

TOTAL DEPTH: 30.0'

SURFACE ELEV:

SCREEN: DIA: LENGTH: SIZE: CASING: DIA: LENGTH: TYPE:

DRILLING METHOD(S):

CLIENT: CONOCO, INC.

PROJECT: MALJAMAR GAS PLANT

WATER LEVEL: INITIAL: N/A

24 HOURS: N/A

BORE HOLE DIAMETER:

DRILLING COMPANY: HARRISON & COOPER

DATE DRILLED: 9/28/00

DRILLER:

OVERSIGHT: TANGEN

DEPTH FEET	SOIL DESCRIPTION	DESCRIPTION INTERVAL	SAMPLE INTERVAL	CORE Y N	OVM or Hnu (PPM)	GRAPHIC LOG	WELL DESIGN	DEPTH FEET
	SOIL, dark brown, moist, odor	0.0'-11.0'						_
[ı	,					}	1
[-	ı		0.0'-5.0'	С	4.0			
F	ı							
[İ	ا آ م
- 5 -	ı							5 -
E 1	-oily black soil		5.0'-7.0'	SS	827.6			
F								1 -
<u> </u>								1]
10			ļ		l			10 -
t				1]
ţ ļ	CALICHE, tan, moist, odor	11.0-12.0'	10.0-12.0'	SS	193.6		Ì]
 	SILTY CALICHE, tan, moist, odor	12.0-18.0'					ļ	-
ţ İ				1	1		}	1
- - 15			ļ		<u></u>			15 –
Ę			15 0 17 0	_				-
<u> </u>			15.0-17.0'	SS	26.0			-
Ē	SAND, tan, moist	18.0-30.0'	ļ ,					7
<u> </u>	,,	, 5.0-50.0	18.0-20.0'	SS	11.2			1
20			113 25.5		11.3			20 –
<u> </u>			l i	!		\]
-			ļ]
-			1	!	-			
-			25.0'	С	6.1			-
- 25 -			1	1				25 -
-				1				-
-	i		!	·	·			-
-	I							-
			30.0'	С	1.8			- 22
30-	Boring terminated at 30.0'							30 -
-	i		1	1				=
_	İ		Ì					-
<u>.</u> .		.		Ì				1
35								_25 +
30								35 '

SS - DRIVEN SPLIT SPOON

ST - PRESSED SHELBY TUBE

RC - ROCK CORE

CT - 5 FT CONTINUOUS SAMPLER

NR - NO READINGS TAKEN

HSA - HOLLOW STEM AUGER

CFA - CONTINUOUS FLIGHT AUGERS MD - MUD DRILLING

AD - AIR DRILLING

C - CUTTINGS

WATER LEVEL

☑ AT COMPLETION

AFTER HOURS

SOIL SAMPLE SUBMITTED TO LAB

BENTONITE SEAL

BOTTOM CAP

SAND PACK

FACTORY - SLOTTED WELL SCREEN

WELL CASING

BORING/WELL #: B-7

PROJECT NO.: 2007207

LOCATION: MALJAMAR, NEW MEXICO

TOTAL DEPTH: 30.0' SURFACE ELEV:

SCREEN: DIA: LENGTH: SIZE: CASING: DIA: LENGTH: TYPE:

DRILLING METHOD(S):

CLIENT: CONOCO, INC.

PROJECT: MALJAMAR GAS PLANT

WATER LEVEL: INITIAL: N/A

24 HOURS: N/A

BORE HOLE DIAMETER:

DRILLING COMPANY: HARRISON & COOPER

DATE DRILLED: 9/28/00

DRILLER:

OVERSIGHT: TANGEN

DEPTH FEET	SOIL DESCRIPTION	DESCRIPTION INTERVAL	SAMPLE INTERVAL	CORE	OVM or Hnu (PPM)	GRAPHIC LOG	WELL DESIGN	DEPTI FEET
	SOIL, dark brown, moist	0.0'-15.5'					•	
	44 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		0.0'-3.0'	С	32.5			
	-black stained soil from 3.0'-15.5'							
5								5
			5.0'-7.0'	ss	977.2			
					377.2			
10				1				10
10								'
			10.0-12.0'	SS	313.4			
15	CLAVEV CAND to projet adar	15.5.20.01						15
	CLAYEY SAND, tan, moist, odor	15.5-20.0'	15.0-17.0'	ss	140.1			
20	SILTY SAND, dark brown, moist	20.0-22.0'						20
	SIETT SAND, dark brown, moist	20.0-22.0	20.0-22.0'	SS	78.5			
	SAND, brown, moist	22.0-25.0'			7 0.0			
25			25.0'	С	15.8			25
	SAND, brown, moist, no odor	25.0-30.0'						
			30.0'	С	3.3			
30	Boring terminated at 30.0'							30
35								25

SS - DRIVEN SPLIT SPOON

ST - PRESSED SHELBY TUBE

RC - ROCK CORE

CT - 5 FT CONTINUOUS SAMPLER AD - AIR DRILLING

NR - NO READINGS TAKEN

HSA - HOLLOW STEM AUGER

CFA - CONTINUOUS FLIGHT AUGERS

MD - MUD DRILLING

C - CUTTINGS

 $\begin{tabular}{ll} \searrow AT COMPLETION \end{tabular}$ X AFTER HOURS SOIL SAMPLE SUBMITTED TO LAB

WATER LEVEL

BOTTOM CAP

SAND PACK

BENTONITE SEAL

FACTORY - SLOTTED WELL SCREEN

WELL CASING

BORING/WELL #: B-8

PROJECT NO.: 2007207

LOCATION: MALJAMAR, NEW MEXICO

TOTAL DEPTH: 17.0'

SURFACE ELEV:

SCREEN: DIA: LENGTH: SIZE:

CASING: DIA: LENGTH: TYPE:

CLIENT: CONOCO, INC.

PROJECT: MALJAMAR GAS PLANT

WATER LEVEL: INITIAL: N/A

24 HOURS: N/A

BORE HOLE DIAMETER:

DRILLING COMPANY: HARRISON & COOPER

DATE DRILLED: 10/28/00

DRILLER:

DR	ILLING METHOD(S):	OVERSIGHT: 0	C. YANCEY					
DEPTH FEET	SOIL DESCRIPTION	DESCRIPTION INTERVAL	SAMPLE INTERVAL	CORE Y N	OVM or Hnu (PPM)	GRAPHIC LOG	WELL DESIGN	DEPTH FEET
- - - -	SILTY SAND, tan, no odor	0.0'-5.0'	0.0'-2.0'	С	1.2			-
- - - 5 - - - -	SILTY SAND, orange, fine-grained, no odor	5.0'-10.0'	5.0′-7.0′	ss	0.8			5 -
- - - 10 - -	SILTY SAND, tan, fine-grained, some caliche	10.0-15.0'	10.0-12.0'	ss	1.0			10 -
- - - - 15 -	SILTY SAND, tan, fine-grained	15.0-17.0'	15.0-17.0'	SS	1.1			15 -
- 20	Boring terminated at 17.0'							20 -
- 25	·							25 -
- - - - 30								30 -
- - - - - - - - - -								35

SS - DRIVEN SPLIT SPOON

ST - PRESSED SHELBY TUBE

RC - ROCK CORE

CT - 5 FT CONTINUOUS SAMPLER AD - AIR DRILLING

NR - NO READINGS TAKEN

HSA - HOLLOW STEM AUGER

CFA - CONTINUOUS FLIGHT AUGERS

MD - MUD DRILLING

C - CUTTINGS

WATER LEVEL $\begin{tabular}{ll} \searrow AT COMPLETION \end{tabular}$

▼ AFTER HOURS

SOIL SAMPLE SUBMITTED TO LAB

ВОТТОМ САР

SAND PACK

BENTONITE SEAL

WELL CASING

BENTONITE/CEMENT GROUT SEAL

FACTORY - SLOTTED WELL SCREEN

BORING/WELL #: B-9

PROJECT NO.: 2007207

LOCATION: MALJAMAR, NEW MEXICO

TOTAL DEPTH: 17.0' SURFACE ELEV:

SCREEN: DIA: LENGTH: SIZE:

CASING: DIA: LENGTH: TYPE:

DRILLING METHOD(S):

CLIENT: CONOCO, INC.

PROJECT: MALJAMAR GAS PLANT

WATER LEVEL: INITIAL: N/A

ATER LEVEL: MATTIAL: N/A

/A 24 HOURS: N/A

BORE HOLE DIAMETER:

DRILLING COMPANY: HARRISON & COOPER

DATE DRILLED: 10/28/00

DRILLER:

OVERSIGHT: C. YANCEY

DRI	LLING METHOD(S):	OVERSIGHT: C	. YANCEY				
DEPTH FEET	SOIL DESCRIPTION	DESCRIPTION INTERVAL	SAMPLE INTERVAL	CORE Y N	OVM or GRAPH Hnu (PPM) LOG	IC WELL DESIGN	DEPTH FEET
	SANDY SILT, light tan, loose	0.0'-5.0'					
- 5	SANDY SILT with some gravel fragments, light tan, caliche	5.0'-10.0'	5.0'-7.0'	ss	2.8		5 -
- 10 10 	SANDY SILT with caliche fragments, light tan	10.0-17.0'	10.0-12.0'	SS	3.0		10 -
- - 15 - -	Boring terminated at 17.0'	5	15.0-17.0'	SS	0.7		15 —
20	boning terminated at 17.0						20
							25 –
30							30 -
- - - 35							35

SS - DRIVEN SPLIT SPOON

ST - PRESSED SHELBY TUBE RC - ROCK CORE

CT - 5 FT CONTINUOUS SAMPLER NR - NO READINGS TAKEN

HSA - HOLLOW STEM AUGER

CFA - CONTINUOUS FLIGHT AUGERS

MD - MUD DRILLING AD - AIR DRILLING

C - CUTTINGS

WATER LEVEL

воттом сар

SAND PACK

BENTONITE SEAL

FACTORY - SLOTTED
WELL SCREEN

WELL CASING

BORING/WELL #: B-10

PROJECT NO.: 2007207

LOCATION: MALJAMAR, NEW MEXICO

TOTAL DEPTH: 17.0'

SURFACE ELEV:

SCREEN: DIA: LENGTH: SIZE:

CASING: DIA: LENGTH: TYPE:

DRILLING METHOD(S):

CLIENT: CONOCO, INC.

PROJECT: MALJAMAR GAS PLANT

WATER LEVEL: INITIAL: N/A

24 HOURS: N/A

BORE HOLE DIAMETER:

DRILLING COMPANY: HARRISON & COOPER

DATE DRILLED: 10/28/00

DRILLER:

OVERSIGHT: C. YANCEY

DEPTIN SOIL DESCRIPTION DESCRIPTION		LLING METHOD(S):	VERSIGHT: C						
SAND with intermixed silt, orange, no odor 5.0'-10.0' 5.0'-10.0' 5.0'-7.0' SS 0.7 10 SILTY SAND, tan to orange, no odor 10.0-17.0' 10.0-17.0' 15.0-17.0' SS 0.1 15.0-17.0' 20 20 30 30	DEPTH FEET		INTERVAL	SAMPLE INTERVAL	CORE Y N	OVM or Hnu (PPM)	GRAPHIC LOG	WELL DESIGN	DÉPTH FEET
SILTY SAND, tan, orange 10.0-17.0' SILTY SAND, tan, orange 10.0-17.0' SS 0.7 10.0-12.0' SS 0.3 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.3 10.0-12.0		SAND with intermixed silt, orange, no odor	0.0'-5.0'						-
SILTY SAND, tan, orange 10.0-17.0' SILTY SAND, tan, orange 10.0-17.0' SS 0.7 10.0-12.0' SS 0.3 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.3 10.0-12.0	-								
SILTY SAND, tan, orange 10.0-17.0' SILTY SAND, tan, orange 10.0-17.0' SS 0.7 10.0-12.0' SS 0.3 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.3 10.0-12.0	-								_
SILTY SAND, tan, orange 10.0-17.0' SILTY SAND, tan, orange 10.0-17.0' SS 0.7 10.0-12.0' SS 0.3 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.3 10.0-12.0	-								-
SILTY SAND, tan, orange 10.0-17.0' SILTY SAND, tan, orange 10.0-17.0' SS 0.7 10.0-12.0' SS 0.3 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.1 15.0-17.0' SS 0.3 10.0-12.0	-								_ :
10.0-17.0' 10.0-12.0' SS 0.3 10 10 15 15 15 15 15 15	- 5 -	SILTY SAND, tan to orange, no odor	5.0'-10.0'			-			5 -
SILTY SAND, tan, orange 10.0-17.0 10.0-12.0 SS 0.3 15.0-17.0 SS 0.1 15.0-17.0 20 20 - 25 - 25 - 25 - 25 - 26 - 26 - 26 - 26	- -			5.0'-7.0'	SS	0.7			-
SILTY SAND, tan, orange 10.0-17.0 10.0-12.0 SS 0.3 15.0-17.0 SS 0.1 15.0-17.0 20 20 - 25 - 25 - 25 - 25 - 26 - 26 - 26 - 26	- - i								_
SILTY SAND, tan, orange 10.0-17.0 10.0-12.0 SS 0.3 15.0-17.0 SS 0.1 15.0-17.0 20 20 - 25 - 25 - 25 - 25 - 26 - 26 - 26 - 26	-								-
SILTY SAND, tan, orange 10.0-17.0 10.0-12.0 SS 0.3 15.0-17.0 SS 0.1 15.0-17.0 20 20 - 25 - 25 - 25 - 25 - 26 - 26 - 26 - 26	-								-
10.0-12.0 SS 0.3	- 10 -	SILTY SAND, tan, orange	10.0-17.0'						10 -
15.0-17.0' SS 0.1 15- Boring terminated at 17.0' 20 - 20 - 20 - 30 - 30 - 30 - 30 - 30 -	-	•		10.0-12.0'	ss	0.3			-
Boring terminated at 17.0' - 20 - 25 - 30	-			-		-			_
Boring terminated at 17.0' - 20 - 25 - 30	- :								-
Boring terminated at 17.0' - 20 - 25 - 30	-]					-
Boring terminated at 17.0' 20 20 30 30	_ 15 -								15 -
Boring terminated at 17.0' 20 20 30 30	-			15.0-17.0'	SS	0.1			-
- 25	<u>-</u> -	Boring terminated at 17.0'		<u> </u>			-11		_
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	35								35

SS - DRIVEN SPLIT SPOON

ST - PRESSED SHELBY TUBE

RC - ROCK CORE

CT - 5 FT CONTINUOUS SAMPLER AD - AIR DRILLING

NR - NO READINGS TAKEN

HSA - HOLLOW STEM AUGER CFA - CONTINUOUS FLIGHT AUGERS

MD - MUD DRILLING

C - CUTTINGS

AFTER HOURS SOIL SAMPLE
SUBMITTED TO LAB

WATER LEVEL

BOTTOM CAP

SAND PACK

BENTONITE SEAL

WELL CASING

BENTONITE/CEMENT GROUT SEAL

FACTORY - SLOTTED
WELL SCREEN

ATTACHMENT B



STL Tampa East

5910 Breckenridge Parkway Suite H Tampa, FL 33610-4236

Tel: 813 621 0784 Fax: 813 623 6021 www.sti-inc.com

ANALYTICAL REPORT

PROJECT NO. NG00001

Maljamar Gas Plant

Lot #: B0I300119

Clyde L. Yancey

Maxim Technologies

SEVERN TRENT LABORATORIES, INC.

Florida Department of Health Certification No. E84059 Florida Department of Environmental Protection CompQAP 200029

Nancy Robert

Nancy Robertson

Project Manager

October 13, 2000

METHODS SUMMARY

B0I300119

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD		
pH Non-Aqueous	SW846 9045A	SW846 9045A		
Chloride	MCAWW 300.0A	MCAWW 300.0A		
Extractable Petroleum Hydrocarbons	SW846 8015B			
Fluoride (Potentiometric, Ion Selective Electrode)	MCAWW 340.2	MCAWW 340.2		
Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3050B		
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A		
Nitrate as N	MCAWW 300.0A	MCAWW 300.0A		
Sulfate	MCAWW 300.0A	MCAWW 300.0A		
Total Residue as Percent Solids	MCAWW 160.3 MOD	MCAWW 160.3 MOD		
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3050B		
Volatile Organics by GC/MS	SW846 8260B	SW846 5035		
Volatile Petroleum Hydrocarbons	SW846 8015B	SW846 5035		

References:

MCAWW	"Methods	for	Chem	ical A	Analysi	is of	Water	and	Wastes",
	EPA-600/4	1-79-	-020,	March	h 1983	and	subsequ	lent	revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

B0I300119

WO # :	SAMPLE‡	CLIENT SAMPLE ID	DATE TIME
DLCMW	001	B1	09/28/00 09:15
DLCN0	002	B2	09/28/00 10:53
DLCN1	003	B3	09/28/00 11:30
DLCN2	004	B4	09/28/00 13:20
DLCN3	005	B2	09/28/00 14:50
DLCN4	006	B6	09/28/00 14:45
DLCN6	007	SOIL COMP	09/28/00
DLCN7	008	В7	09/28/00 15:50
DLCN8	009	B8	09/28/00 15:10
DLCN9	010	B9	09/28/00 15:00
DLCNA	011	B10	09/28/00 14:40
DLCNC	012	B-3-2	09/29/00 09:00
DLCND	013	B-3-1	09/29/00 11:30
DLCNE	014	B-3-5	09/29/00 11:30

NOTE(S)

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Client Sample ID: B1

GC/MS Volatiles

Lot-Sample #: B0I300119-001	Work Order #:	DLCMW101	Matrix: SOLID
Date Sampled: 09/28/00	Date Received:	09/30/00	
<pre>Prep Date: 10/11/00</pre>	Analysis Date:	10/11/00	
Prep Batch #: 0286175			
Dilution Factor: 1	<pre>Initial Wgt/Vol:</pre>	5.59 g	Final Wgt/Vol: 5 mL
<pre>% Moisture: 5.5</pre>	Method:	SW846 8260	В
		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
Xylenes (total)	ND	5.3	ug/kg
Benzene	ND	5.3	ug/kg
Ethylbenzene	ND	5.3	ug/kg
Toluene	ND	5.3	ug/kg
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	
Bromofluorobenzene	83	(28 - 159)	
1,2-Dichloroethane-d4	102	(51 - 168)	
Toluene-d8	113	(66 - 152)	
Dibromofluoromethane	103	(73 - 151)	
NOTE(S):			

Client Sample ID: B1

GC Volatiles

Lot-Sample #: B0I300119-001	Work Order #: DLCMW103	Matrix: SOLID
Date Sampled: 09/28/00	Date Received: 09/30/00	

Dilution Factor: 1 Initial Wgt/Vol: 5.28 g Final Wgt/Vol.: 5 mL
% Moisture....: 5.5 Method.....: SW846 8015B

REPORTING

PARAMETER RESULT LIMIT UNITS
Gasoline Range Organics ND 5.3 mg/kg

PERCENT RECOVERY
SURROGATE RECOVERY LIMITS
4-Bromofluorobenzene 97 (39 - 163)

NOTE(S):

Client Sample ID: B1

GC Semivolatiles

Lot-Sample #: B0I300119-001	Work Order #:	DLCMW102	Matrix SOLID
Date Sampled: 09/28/00	Date Received:	09/30/00	
<pre>Prep Date: 10/02/00</pre>	Analysis Date:	10/06/00	
Prep Batch #: 0276444			
Dilution Factor: 1	<pre>Initial Wgt/Vol:</pre>	30.4 g	Final Wgt/Vol: 1 mL
% Moisture: 5.5	Method:	SW846 8015	В
		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
Diesel Range Organics	ND	11	mg/kg
•	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	
Tetratriacontane	73	(25 - 113)	

NOTE(S):

Client Sample ID: B1

TOTAL Metals

	SOLID
ARATION-	WORK
YSIS DATE	ORDER #
1/00	DLCMW10
nal Wgt/Vol:	: 0
1-10/12/00	
nal Wgt/Vol:	: 0
1-10/12/00	DLCMW106
nal Wgt/Vol:	. 0
1-10/12/00	DLCMW105
nal Wgt/Vol:	0
1-10/12/00	DLCMW107
nal Wgt/Vol:	0
L-10/12/00	DLCMW108
nal Wgt/Vol:	0
1-10/12/00	DLCMW109
nal Wgt/Vol:	0
1-10/12/00	DLCMW10A
nal Wgt/Vol:	: 0
r	nal Wgt/Vol: 1-10/12/00 nal Wgt/Vol: 1-10/12/00 nal Wgt/Vol: 1-10/12/00 nal Wgt/Vol: 1-10/12/00 nal Wgt/Vol:

Client Sample ID: B1

General Chemistry

Lot-Sample #...: B0I300119-001

Work Order #...: DLCMW
Date Received..: 09/30/00

Matrix..... SOLID

Date Sampled...: 09/28/00

% Moisture....: 5.5

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (solid)	9.0	0.10	No Units	SW846 9045A	09/30/00	0276317
	Dil	ution Facto	or: 1	Initial Wgt/Vol: 0	Final Wgt/Vol	: 0
Chloride	ND	5.3	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276192
	Dil	ution Facto	or: 1	Initial Wgt/Vol: 10 g	Final Wgt/Vol	: 100 mL
Fluoride	1.6	1.1	mg/kg	MCAWW 340.2	10/06/00	0283107
	Dil	ution Facto	or: 1	Initial Wgt/Vol: 20 g	Final Wgt/Vol	: 100 mL
Nitrate as N	ND	2.6	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276193
	Dil	ution Facto	or: 1	Initial Wgt/Vol: 10 g	Final Wgt/Vol	: 100 mL
Percent Solids	94.5	0.10	¥	MCAWW 160.3 MOD	10/04-10/05/00	0279160
	Dil	ution Facto	or: 1	Initial Wgt/Vol: 0	Final Wgt/Vol	: 0
Sulfate	14.8	5.3	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276194
	Dil	ution Facto	or: 1	Initial Wgt/Vol: 10 g	Final Wgt/Vol	: 100 mL

NOTE(S):

RL Reporting Limit

Client Sample ID: B2

GC/MS Volatiles

Work Order #:	DLCN0101	Matrix: SOLID
Date Received:	09/30/00	
Analysis Date:	10/11/00	
<pre>Initial Wgt/Vol:</pre>	6.02 g	Final Wgt/Vol: 5 mL
Method:	SW846 8260	В
	REPORTING	
RESULT	LIMIT	UNITS
ND	5.8	ug/kg
		•
PERCENT	RECOVERY	
RECOVERY	LIMITS	
83	(28 - 159)	
102	(51 - 168)	
	Date Received.: Analysis Date.: Initial Wgt/Vol: Method: RESULT ND ND ND ND ND ND PERCENT RECOVERY 83	RESULT LIMIT ND 5.8 ND 5.8 ND 5.8 ND 5.8 PERCENT RECOVERY RECOVERY LIMITS 83 (28 - 159)

115

103

(66 - 152)

(73 - 151)

NOTE(S):

Toluene-d8

Results and reporting limits have been adjusted for dry weight.

Dibromofluoromethane

Client Sample ID: B2

GC Volatiles

Lot-Sample #: B0I300119-002	Work Order #: DLCN0103	Matrix SOLID
-----------------------------	------------------------	--------------

 Date Sampled...:
 09/28/00
 Date Received...:
 09/30/00

 Prep Date.....:
 09/30/00
 Analysis Date...:
 10/06/00

Prep Batch #...: 0280279

Dilution Factor: 1 Initial Wgt/Vol: 5.16 g Final Wgt/Vol.: 5 mL

% Moisture....: 13 **Method**.....: SW846 8015B

REPORTING

PARAMETER RESULT LIMIT UNITS
Gasoline Range Organics ND 5.8 mg/kg

Gasoline Range Organics ND 5.8 mg/kg
PERCENT RECOVERY

SURROGATE RECOVERY LIMITS
4-Bromofluorobenzene 93 (39 - 163)

NOTE(S):

Client Sample ID: B2

GC Semivolatiles

Lot-Sample #...: B0I300119-002 Work Order #...: DLCN0102 Matrix....: SOLID

 Date Sampled...:
 09/28/00
 Date Received...:
 09/30/00

 Prep Date.....:
 10/02/00
 Analysis Date...:
 10/06/00

Prep Batch #...: 0276444

Dilution Factor: 1 Initial Wgt/Vol: 29.92 g Final Wgt/Vol..: 1 mL

% Moisture....: 13 **Method**.....: SW846 8015B

REPORTING

PARAMETER RESULT LIMIT UNITS
Diesel Range Organics ND 12 mg/kg

PERCENT RECOVERY
SURROGATE RECOVERY LIMITS

Tetratriacontane 76 (25 - 113)

NOTE(S):

Client Sample ID: B2

TOTAL Metals

Lot-Sample #...: B0I300119-002 Matrix....: SOLID

% Moisture....: 13

		REPORTI	NG		PREPARATION-	WORK
PARAMETER	RESULT	LIMIT_	<u>UŅITS</u>	METHOD	ANALYSIS DATE	ORDER #
Prep Batch #.	: 0285375					
Mercury	ND	0.12	mg/kg	SW846 7471A	10/11/00	DLCN010C
•		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	. : 0
					-	
Prep Batch #.	: 0285418					
Arsenic	1.2	0.29	mg/kg	SW846 6010B	10/11-10/12/00	DLCN0104
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Lead	2.5	0.58	mg/kg	SW846 6010B	10/11-10/12/00	DLCN0105
		Dilution Fa	ctor: 2	Initial Wgt/Vol:	Final Wgt/Vol.	: 0
Selenium	ND	0.58	mg/kg	SW846 6010B	10/11-10/12/00	DLCN0106
		Dilution Fa	ctor: 2	Initial Wgt/Vol:	Final Wgt/Vol	: 0
Barium	81.2	5.8	mg/kg	SW846 6010B	10/11-10/12/00	DLCN0107
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol	: 0
Cadmium	ND	0.58	mg/kg	SW846 6010B	10/11-10/12/00	DLCN0108
		Dilution Fa	ctor: 1	<pre>Initial Wgt/Vol:</pre>	Final Wgt/Vol	: 0
Chromium	ND	2.3	mg/kg	SW846 6010B	10/11-10/12/00	DLCN0109
		Dilution Fac	ctor: 2	Initial Wgt/Vol:	Final Wgt/Vol	: 0
Silver	ND	1.2	mg/kg	SW846 6010B	10/11-10/12/00	DLCN010A
		Dilution Fa	ctor: 1	<pre>Initial Wgt/Vol:</pre>	Final Wgt/Vol	
NOTE(S):						

Client Sample ID: B2

General Chemistry

Lot-Sample #...: B0I300119-002
Date Sampled...: 09/28/00

Work Order #...: DLCN0

Date Received..: 09/30/00

Matrix....: SOLID

% Moisture....: 13

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (solid)	9.1	0.10 ution Fact	No Units	SW846 9045A Initial Wgt/Vol:	09/30/00 Final Wgt/Vol.	0276317 .: 0
Chloride	ND Dil	5.8 ution Fact		MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol.	
Fluoride	1.9	1.2 ution Fact	mg/kg or: 1	MCAWW 340.2 Initial Wgt/Vol: 20 g	10/06/00 Final Wgt/Vol.	
Nitrate as N	ND Dil	2.9 ution Fact		MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol.	
Percent Solids	86.8	0.10 ution Fact	% or: 1	MCAWW 160.3 MOD Initial Wgt/Vol:	10/04-10/05/00 Final Wgt/Vol.	
Sulfate	9.5	5.8 ution Fact	mg/kg or: 1	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol.	

NOTE(S):

RL Reporting Limit

Client Sample ID: B3

GC/MS Volatiles

Lot-Sample #: B0I	300119-003 Work Order #:	DLCN1101	Matrix:	SOLID
Date Sampled: 09/2	Date Received:	09/30/00		
Prep Date: 10/3	11/00 Analysis Date:	10/11/00		
Prep Batch #: 0286	6175			
Dilution Factor: 1	Initial Wgt/Vol:	6.22 g	Final Wgt/Vol:	5 mL
% Moisture: 17	Method	SW846 8260B		

*		REPORTING	

		1021 0101 110	
PARAMETER	RESULT	LIMIT	UNITS
Benzene	ND	6.0	ug/kg
Ethylbenzene	ND	6.0	ug/kg
Toluene	ND	6.0	ug/kg
Xylenes (total)	ND	6.0	ug/kg
	PERCENT	RECOVERY	•
SURROGATE	RECOVERY	LIMITS	
Bromofluorobenzene	79	(28 - 15	9)
1,2-Dichloroethane-d4	102	(51 - 16	8)
Toluene-d8	114	(66 - 15	2)
Dibromofluoromethane	104	(73 - 15	1)

NOTE(S):

Client Sample ID: B3

GC Volatiles

Lot-Sample #: B0I300119-003	Work Order #:	DLCN1103	Matrix SOLID
Date Sampled: 09/28/00	Date Received:	09/30/00	
<pre>Prep Date: 09/30/00</pre>	Analysis Date:	10/06/00	
Prep Batch #: 0280279			
Dilution Factor: 1	<pre>Initial Wgt/Vol:</pre>	5.29 g	Final Wgt/Vol: 5 mL
% Moisture: 17	Method:	SW846 8015	В
		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
Gasoline Range Organics	ND	6.0	mg/kg
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	
4-Bromofluorobenzene	99	(39 - 163)	

NOTE(S):

солосо

Client Sample ID: B3

GC Semivolatiles

Lot-Sample #: B0I300119-003 Date Sampled: 09/28/00 Prep Date: 10/02/00 Prep Batch #: 0276444	Work Order #: Date Received: Analysis Date:	09/30/00	Matrix SOLID
Dilution Factor: 1 % Moisture: 17	<pre>Initial Wgt/Vol: Method:</pre>	~	Final Wgt/Vol: 1 mL B
PARAMETER Diesel Range Organics	RESULT ND	REPORTING LIMIT 12	UNITS mg/kg
SURROGATE Tetratriacontane	PERCENT RECOVERY 82	RECOVERY LIMITS (25 - 113)	

NOTE(S):

Client Sample ID: B3

TOTAL Metals

Lot-Sample #...: B0I300119-003 Matrix....: SOLID

% Moisture....: 17

		REPORTI	NG		PREPARATION-	WORK
PARAMETER	RESULT	LIMIT	UNITS	METHOD	ANALYSIS DATE	ORDER #
Prep Batch #.	: 0285375					
Mercury	ND	0.12	mg/kg	SW846 7471A	10/11/00	DLCN110C
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Prep Batch #.	: 0285418					
Arsenic	1.6	0.30	mg/kg	SW846 6010B	10/11-10/12/00	DLCN1104
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Lead	4.2	1.5	mg/kg	SW846 6010B	10/11-10/12/00	DLCN1105
		Dilution Fa	ctor: 5	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Selenium	ND	1.5	mg/kg	SW846 6010B	10/11-10/12/00	DLCN1106
		Dilution Fa	ctor: 5	Initial Wgt/Vol:	Final Wgt/Vol.	. : 0
Barium	67.6	6.0	mg/kg	SW846 6010B	10/11-10/12/00	DLCN1107
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	. : 0
Cadmium	ND	0.60	mg/kg	SW846 6010B	10/11-10/12/00	DLCN1108
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Chromium	ND	6.0	mg/kg	SW846 6010B	10/11-10/12/00	DLCN1109
		Dilution Fa	ctor: 5	Initial Wgt/Vol:	Final Wgt/Vol.	. : 0
Silver	ND	1.2	mg/kg	SW846 6010B	10/11-10/12/00	DLCN110A
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
NOTE(S):						

Client Sample ID: B3

General Chemistry

Lot-Sample #...: B0I300119-003

Work Order #...: DLCN1
Date Received..: 09/30/00

Matrix....: SOLID

Date Sampled...: 09/28/00

% Moisture....: 17

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (solid)	8.9	0.10 Dilution Fact	No Units	SW846 9045A Initial Wgt/Vol:	09/30/00 Final Wgt/Vol.	0276317 .: 0
Chloride	ND	6.0 Dilution Fact	mg/kg	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol.	
Fluoride	3.4	1.2 Dilution Fact	mg/kg	MCAWW 340.2 Initial Wgt/Vol: 20 g	10/06/00 Final Wgt/Vol.	0283107 .: 100 mL
Nitrate as N	ND	3.0 Dilution Fact	mg/kg	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol.	
Percent Solids	83.0	0.10 Dilution Fact	% :or: 1	MCAWW 160.3 MOD Initial Wgt/Vol:	10/04-10/05/00 Final Wgt/Vol.	
Sulfate	ND	6.0 Dilution Fact	mg/kg cor: 1	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol.	

NOTE(S):

RL Reporting Limit

Client Sample ID: B4

GC/MS Volatiles

Lot-Sample #: B0I300119-004	Work Order #:	DLCN2101	Matrix: SOLID
Date Sampled: 09/28/00	Date Received:	09/30/00	
<pre>Prep Date: 10/11/00</pre>	Analysis Date:	10/11/00	
Prep Batch #: 0286175			
Dilution Factor: 1	<pre>Initial Wgt/Vol:</pre>	6.68 g	Final Wqt/Vol: 5 mL
% Moisture: 19	Method:	SW846 8260	В
		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
Benzene	ND	6.1	ug/kg
Ethylbenzene	ND	6.1	ug/kg
Toluene	ND	6.1	ug/kg
Xylenes (total)	ND	6.1	ug/kg
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	
Bromofluorobenzene	83	(28 - 159)	
1,2-Dichloroethane-d4	108	(51 - 168)	
Toluene-d8	111	(66 - 152)	
Dibromofluoromethane	106	(73 - 151)	
NOTE (S) -			

Client Sample ID: B4

GC Volatiles

Lot-Sample #:	B0I300119-004	Work Order #:	DLCN2103	Matrix SOLID
Date Sampled:	09/28/00	Date Received:	09/30/00	•
Prep Date:	09/30/00	Analysis Date:	10/06/00	
Prep Batch #:	0280279			
Dilution Factor:	1	<pre>Initial Wgt/Vol:</pre>	5.09 g	Final Wgt/Vol: 5 mL
<pre>% Moisture:</pre>	19	Method:	SW846 8015	В
PARAMETER		RESULT	REPORTING LIMIT	UNITS
Gasoline Range Or	ganics	ND	6.1	mg/kg
		PERCENT	RECOVERY	
SURROGATE		RECOVERY	LIMITS	
4-Bromofluorobenz	ene	95	(39 - 163)	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Client Sample ID: B4

GC Semivolatiles

Lot-Sample #:	B01300119-004	work Order #:	DLCN2102	Matrix	C :	SOLID
Date Sampled:	09/28/00	Date Received:	09/30/00			
Prep Date:	10/02/00	Analysis Date:	10/06/00			
Prep Batch #:	0276444					
Dilution Factor:	1	<pre>Initial Wgt/Vol:</pre>	29.42 g	Final	Wgt/Vol:	1 mL
% Moisture:	19	Method:	SW846 8015	3		
			REPORTING			
PARAMETER		RESULT	LIMIT	UNITS	_	
Diesel Range Orga	nics	ND	12	mg/kg	_	
•						

RECOVERY

(25 - 113)

LIMITS

PERCENT

RECOVERY

NOTE(S):

SURROGATE

Tetratriacontane

Client Sample ID: B4

TOTAL Metals

Matrix....: SOLID

Lot-Sample #:..: B0I300119-004

% Moisture....: 19

PARAMETER	RESULT	REPORTI LIMIT	NG <u>UNITS</u>	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #	: 0285375					
Mercury	ND	0.12	mg/kg	SW846 7471A	10/11/00	DLCN210C
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Prep Batch #	: 0285418					
Arsenic	1.6	0.31	mg/kg	SW846 6010B	10/11-10/12/00	DLCN2104
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	. : 0
Lead	3.5	1.5	mg/kg	SW846 6010B	10/11-10/12/00	DLCN2105
		Dilution Fa	ctor: 5	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Selenium	ND	1.5	mg/kg	SW846 6010B	10/11-10/12/00	DLCN2106
		Dilution Fa	ctor: 5	Initial Wgt/Vol:	Final Wgt/Vol.	. : 0
Barium	50.9	6.1	mg/kg	SW846 6010B	10/11-10/12/00	DLCN2107
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	. : 0
Cadmium	ND	0.61	mg/kg	SW846 6010B	10/11-10/12/00	DLCN2108
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Chromium	11.2	6.1	mg/kg	SW846 6010B	10/11-10/12/00	DLCN2109
		Dilution Fa	ctor: 5	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Silver	ND	1.2	mg/kg	SW846 6010B	10/11-10/12/00	DLCN210A
		Dilution Fac	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
NOTE(S):						

Client Sample ID: B4

General Chemistry

Lot-Sample #...: B0I300119-004

Work Order #...: DLCN2

Matrix....: SOLID

Date Sampled...: 09/28/00

% Moisture....: 19

Date Received..: 09/30/00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (solid)	8.9	0.10 ution Facto	No Units	SW846 9045A Initial Wgt/Vol:	09/30/00 Final Wgt/Vol	0276317 : 0
Chloride	ND Dil	6.1 ution Facto		MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol	
Fluoride	6.1	1.2 ution Facto	3. 3	MCAWW 340.2 Initial Wgt/Vol: 20 g	10/06/00 Final Wgt/Vol	
Nitrate as N	ND Dil	3.1 ution Facto	3, 3	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol.	
Percent Solids	81.3	0.10 ution Facto	% or: 1	MCAWW 160.3 MOD Initial Wgt/Vol:	10/04-10/05/00 Final Wgt/Vol	
Sulfate	12.3	6.1 ution Facto	mg/kg	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol.	

NOTE(S):

RL Reporting Limit

Client Sample ID: B5

GC/MS Volatiles

	•	•		•		
Lot-Sample #: Date Sampled: Prep Date: Prep Batch #:	09/28/00 10/11/00	Work Order #: Date Received: Analysis Date:	09/30/00	Matrix.		SOLID
Dilution Factor:	1	<pre>Initial Wgt/Vol:</pre>	6.28 g	Final W	gt/Vol:	5 mL
<pre>% Moisture:</pre>	16	Method:			5 -,	
			REPORTING			
PARAMETER		RESULT	LIMIT	UNITS		
Benzene		ND	5.9	ug/kg		
Ethylbenzene		ND	5.9	ug/kg		
Toluene		ND	5.9	ug/kg		
Xylenes (total)		ND	5.9	ug/kg		
		PERCENT	RECOVERY			
SURROGATE		RECOVERY	LIMITS			
Bromofluorobenzer	ie	71	(28 - 159)			
1,2-Dichloroethan	ne-d4	120	(51 - 168)			
Toluene-d8		123	(66 - 152)			

(73 - 151)

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NOTE (S):

Results and reporting limits have been adjusted for dry weight.

Dibromofluoromethane

Client Sample ID: B5

GC Volatiles

Lot-Sample #...: B0I300119-005 Work Order #...: DLCN3103 Matrix.....: SOLII

Prep Date....: 09/30/00 Analysis Date..: 10/06/00 Prep Batch #...: 0280279

Dilution Factor: 1 Initial Wgt/Vol: 5.55 g Final Wgt/Vol.: 5 mL

% Moisture....: 16 **Method.....:** SW846 8015B

REPORTING

PARAMETER RESULT LIMIT UNITS

Gasoline Range Organics ND 5.9 mg/kg

SURROGATE PERCENT RECOVERY
LIMITS

4-Bromofluorobenzene 93 (39 - 163)

NOTE(S):

Client Sample ID: B5

GC Semivolatiles

Lot-Sample #: B0I300119-005	Work Order #: DLCN3102	Matrix: SOLID
Date Co-pled - 00/20/00	Date Received . 00/20/00	

Prep Batch #...: 0276444

Dilution Factor: 1 Initial Wgt/Vol: 29.85 g Final Wgt/Vol..: 1 mL

% Moisture....: 16 **Method.....:** SW846 8015B

REPORTING

PARAMETER RESULT LIMIT UNITS

Diesel Range Organics 74 12 mg/kg

PERCENT RECOVERY
SURROGATE RECOVERY
LIMITS
Tetratriacontane 65 (25 - 113)

NOTE(S):

Client Sample ID: B5

TOTAL Metals

Lot-Sample #...: B0I300119-005

Date Sampled...: 09/28/00

Date Received..: 09/30/00

% Moisture....: 16

PARAMETER	RESULT	REPORTIN LIMIT	G UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #	.: 0285375					
Mercury	ND	0.12	mg/kg	SW846 7471A	10/11/00	DLCN310C
		Dilution Fact	tor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Donner Databalla II	0005410		•			
Prep Batch # Arsenic	.: 0285418 1.4	0.30	mg/kg	SW846 6010B	10/11 10/12/00	DI (DI 104
Aisenic	1.4	Dilution Fact		Initial Wgt/Vol:	10/11-10/12/00 Final Wgt/Vol.	
					•	
Lead	2.7	0.30	mg/kg	SW846 6010B	10/11-10/12/00	DLCN3105
		Dilution Fact	tor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Selenium	0.41	0.30	mg/kg	SW846 6010B	10/11-10/12/00	DLCN3106
		Dilution Fact	cor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Barium	20.7	5.9	mg/kg	SW846 6010B	10/11-10/12/00	DLCN3107
		Dilution Fact	tor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Cadmium	ND	0.59	mg/kg	SW846 6010B	10/11-10/12/00	DLCN3108
		Dilution Fact		<pre>Initial Wgt/Vol:</pre>	Final Wgt/Vol.	
Chromium	56.9	1.2	mq/kq	SW846 6010B	10/11-10/12/00	DLCN3109
		Dilution Fact	or: 1	Initial Wgt/Vol:	Final Wgt/Vol.	
Silver	ND	1.2	mg/kg	SW846 6010B	10/11-10/12/00	DLCN310A
-		Dilution Fact	3. 3	Initial Wgt/Vol:	Final Wgt/Vol	
NOTE(S):						

Client Sample ID: B5

General Chemistry

Lot-Sample #...: B0I300119-005

Date Sampled...: 09/28/00

Work Order #...: DLCN3

Date Received..: 09/30/00

% Moisture...: 16

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (solid)	8.3	0.10 ution Facto	No Units	SW846 9045A Initial Wgt/Vol:	09/30/00 Final Wgt/Vol	0276317 : 0
Chloride	7.1	5.9 ution Facto	mg/kg	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol	
Fluoride	2.0	1.2 ution Facto	mg/kg	MCAWW 340.2 Initial Wgt/Vol: 20 g	10/06/00 Final Wgt/Vol	0283107 : 100 mL
Nitrate as N	ND Dil	3.0 ution Facto	mg/kg	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol	
Percent Solids	84.5	0.10	% or: 1	MCAWW 160.3 MOD Initial Wgt/Vol:	10/04-10/05/00 Final Wgt/Vol	
Sulfate	10.9°	5.9 ution Facto	mg/kg	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol	

NOTE(S):

RL Reporting Limit

Client Sample ID: B6

GC/MS Volatiles

Lot-Sample #: B0I300119-006	Work Order #:	DLCN4101	Matrix SOLID
Date Sampled: 09/28/00	Date Received:	09/30/00	
Prep Date: 09/30/00	Analysis Date:	10/11/00	•
Prep Batch #: 0286314			
Dilution Factor: 5	<pre>Initial Wgt/Vol:</pre>	5.09 g	Final Wgt/Vol: 5 mL
% Moisture: 14	Method:	SW846 8260	В
		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
Benzene	ND	1500	ug/kg
Ethylbenzene	16000	1500	ug/kg
Toluene	ND	1500	ug/kg
Xylenes (total)	14000	1500	ug/kg
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	•
1,2-Dichloroethane-d4	NC, SRD	(57 - 132)	
Bromofluorobenzene	NC, SRD	(58 - 135)	
Dibromofluoromethane	NC, SRD	(57 - 130)	
Toluene-d8	NC, SRD	(61 - 133)	
NOTE(S):			

NC The recovery and/or RPD were not calculated.

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.

Client Sample ID: B6

GC Volatiles

Lot-Sample #:	B0I300119-006	Work Order #:	DLCN4103	Matri:	x:	SOLID
Date Sampled:	09/28/00	Date Received:	09/30/00	*	•	
Prep Date:	09/30/00	Analysis Date:	10/09/00	•		
<pre>Prep Batch #:</pre>	0280279					
Dilution Factor:	5	<pre>Initial Wgt/Vol:</pre>	5.14 g	Final	Wgt/Vol:	5 mL
<pre>% Moisture:</pre>	14	Method:	SW846 8015	В		
			REPORTING			
PARAMETER		RESULT	LIMIT	UNITS		
Gasoline Range On	rganics	480	29	mg/kg	_	
		PERCENT	RECOVERY			
SURROGATE		RECOVERY	LIMITS			

(39 - 163)

NOTE(S):

NC The recovery and/or RPD were not calculated.

4-Bromofluorobenzene

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery. Results and reporting limits have been adjusted for dry weight.

NC, SRD

Client Sample ID: B6

GC Semivolatiles

Lot-Sample #: B0I300119-006	Work Order	#: DLCN4102	Matrix:	SOLID
		•	_	

Date Received..: 09/30/00 Date Sampled...: 09/28/00 Prep Date....: 10/02/00 **Analysis** Date..: 10/11/00

Prep Batch #...: 0276444

Initial Wgt/Vol: 29.43 g Dilution Factor: 10 Final Wgt/Vol..: 1 mL

Method....: SW846 8015B **% Moisture....:** 14

REPORTING

PARAMETER RESULT LIMIT UNITS Diesel Range Organics 2700 120 mg/kg

> PERCENT RECOVERY RECOVERY LIMITS

SURROGATE Tetratriacontane (25 - 113)NC, SRD

NOTE(S):

NC The recovery and/or RPD were not calculated.

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.

Client Sample ID: B6

TOTAL Metals

Lot-Sample #...: B0I300119-006

Date Sampled...: 09/28/00

Date Received..: 09/30/00

Matrix....

.: SOLID

% Moisture....: 14

		REPORTIN	1G		PREPARATION-	WORK
PARAMETER	RESULT	LIMIT	UNITS	METHOD	ANALYSIS DATE	ORDER #
Prep Batch #	.: 0285375				,	
Mercury	0.34	0.12	mg/kg	SW846 7471A	10/11/00	DLCN410C
-		Dilution Fac	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Prep Batch #	.: 0285418					
Arsenic	2.7	0.29	mg/kg	SW846 6010B	10/11-10/12/0	DLCN4104
		Dilution Fac		Initial Wgt/Vol:	Final Wgt/Vol.	
Lead	4.8	0.29	mg/kg	SW846 6010B	10/11-10/12/0	DLCN4105
		Dilution Fac	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Selenium	0.62	0.29	mg/kg	SW846 6010B	10/11-10/12/0	DLCN4106
		Dilution Fac	tor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Barium	43.5	5.8	mg/kg	SW846 6010B	10/11-10/12/0	DLCN4107
		Dilution Fac	tor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Cadmium	ND	0.58	mg/kg	SW846 6010B	10/11-10/12/00	DLCN4108
		Dilution Fac	tor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Chromium	66.6	1.2	mg/kg	SW846 6010B	10/11-10/12/0	DLCN4109
		Dilution Fac	tor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Silver	ND	1.2	mg/kg	SW846 6010B	10/11-10/12/00	DLCN410A
		Dilution Fac	tor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
NOTE (S):						

Client Sample ID: B6

General Chemistry

Lot-Sample #...: B0I300119-006

Date Sampled...: 09/28/00

Work Order #...: DLCN4

Date Received..: 09/30/00

Matrix..... SOLID

% Moisture....: 14

					PREPARATION-	PREP.
PARAMETER	RESULT	RL	UNITS	METHOD	ANALYSIS DATE	BATCH #
pH (solid)	8.7	0.10	No Units	SW846 9045A	09/30/00	0276317
	Dil	ution Fact	or: 1	Initial Wgt/Vol:	Final Wgt/Vol	: 0
Chloride	14.3	5.8	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276192
	Dil	ution Fact	or: 1	Initial Wgt/Vol: 10 g	Final Wgt/Vol	: 100 mL
Fluoride	1.2	1.2	mg/kg	MCAWW 340.2	10/06/00	0283107
	Dil	ution Fact	or: 1	Initial Wgt/Vol: 20 g	Final Wgt/Vol	: 100 mL
Nitrate as N	ND	2.9	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276193
	Dil	ution Facto	or: 1	Initial Wgt/Vol: 10 g	Final Wgt/Vol	: 100 mL
Percent Solids	86.0	0.10	ક	MCAWW 160.3 MOD	10/04-10/05/00	0279160
	Dil	ution Facto	or: 1	Initial Wgt/Vol:	Final Wgt/Vol	: 0
Sulfate	9.0	5.8	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276194
	Dil	ution Facto	or: 1	Initial Wgt/Vol: 10 g	Final Wgt/Vol	: 100 mL

NOTE(S):

RL Reporting Limit

Client Sample ID: B7

GC/MS Volatiles

Lot-Sample #: B0I300119-008	Work Order #:	DLCN7101	Matrix	c §	SOLID
Date Sampled: 09/28/00	Date Received:	09/30/00			
Prep Date: 09/30/00	Analysis Date:	10/11/00			
Prep Batch #: 0286314				•	
Dilution Factor: 1	<pre>Initial Wgt/Vol:</pre>	5.14 g	Final	Wgt/Vol: 5	mL
% Moisture: 15	Method:	SW846 8260	В		
	•	REPORTING			
PARAMETER	RESULT	LIMIT	UNITS	_	
Benzene	ND	300	ug/kg		
Ethylbenzene	3000	300	ug/kg		
Toluene	ND	300	ug/kg	•	
Xylenes (total)	2300	300	ug/kg		
	PERCENT	RECOVERY			
SURROGATE	RECOVERY	LIMITS			
1,2-Dichloroethane-d4	107	(57 - 132)			
Bromofluorobenzene	95	(58 - 135)			
Dibromofluoromethane	106	(57 - 130)			
Toluene-d8	111	(61 - 133)			
MOTER (C).					

Client Sample ID: B7

GC Volatiles

Lot-Sample #...: B0I300119-008 Date Sampled...: 09/28/00

Work Order #...: DLCN7103 Date Received..: 09/30/00 Analysis Date..: 10/07/00

Prep Date....: 09/30/00 **Prep Batch #...:** 0280279

Initial Wgt/Vol: 6.01 g

Final Wgt/Vol..: 5 mL

Dilution Factor: 1 **% Moisture....:** 15

Method....: SW846 8015B

PARAMETER

RESULT

LIMIT

REPORTING

UNITS

Gasoline Range Organics

170

5.9

mg/kg

SURROGATE

4-Bromofluorobenzene

PERCENT RECOVERY RECOVERY LIMITS

(39 - 163)

NOTE(S):

Client Sample ID: B7

GC Semivolatiles

Lot-Sample #: B0I300119-008	Work Order #: DLCN7102	Matrix: SOLID
Date Sampled • 09/28/00	Date Received • 09/30/00	,

Prep Date....: 10/02/00 Analysis Date..: 10/11/00

Prep Batch #...: 0276444

Dilution Factor: 10 Initial Wgt/Vol: 29.32 g Final Wgt/Vol..: 1 mL

% Moisture....: 15 Method....: SW846 8015B

REPORTING

PARAMETER RESULT LIMIT UNITS Diesel Range Organics 3800 120 mg/kg

> PERCENT RECOVERY

RECOVERY LIMITS NC, SRD (25 - 113)

Tetratriacontane

NOTE(S):

SURROGATE

NC The recovery and/or RPD were not calculated.

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.

Client Sample ID: B7

TOTAL Metals

Lot-Sample #...: B0I300119-008

Date Sampled...: 09/28/00

% Moisture....: 15

Date Received..: 09/30/00

		REPORTI	NG		PREPARATION-	WORK
PARAMETER	RESULT	LIMIT	UNITS	METHOD	ANALYSIS DATE	ORDER #
Prep Batch #	: 0285375					
Mercury	0.82	0.12	mg/kg	SW846 7471A	10/11/00	DLCN7100
		Dilution Fa	ctor: 1	<pre>Initial Wgt/Vol:</pre>	Final Wgt/Vol.	.: 0
Prep Batch #	: 0285418					
Arsenic	3.1	0.30	mg/kg	SW846 6010B	10/11-10/12/00	DLCN7104
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Lead	5.5	0.30	mg/kg	SW846 6010B	10/11-10/12/00	DLCN7105
		Dilution Fac	ctor: 1	<pre>Initial Wgt/Vol:</pre>	Final Wgt/Vol.	.: 0
Selenium	0.96	0.30	mg/kg	SW846 6010B	10/11-10/12/00	DLCN7106
		Dilution Fac	ctor: 1	<pre>Initial Wgt/Vol:</pre>	Final Wgt/Vol.	.: 0
Barium	43.9	5.9	mg/kg	SW846 6010B	10/11-10/12/00	DLCN7107
		Dilution Fac	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Cadmium	ND	0.59	mg/kg	SW846 6010B	10/11-10/12/00	DLCN7108
		Dilution Fac	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Chromium	16.9	1.2	mg/kg	SW846 6010B	10/11-10/12/00	DLCN7109
		Dilution Fac	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Silver	ND	1.2	mg/kg	SW846 6010B	10/11-10/12/00	DLCN710A
		Dilution Fac	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0

Client Sample ID: B7

General Chemistry

Lot-Sample #...: B0I300119-008

Date Sampled...: 09/28/00

Work Order #...: DLCN7

Date Received..: 09/30/00

% Moisture....: 15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (solid)	8.2	0.10 ution Fact	No Units	SW846 9045A Initial Wgt/Vol:	09/30/00 Final Wgt/Vol.	0276317 : 0
Chloride	31.8	5.9 ution Fact	mg/kg	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol.	
Fluoride	ND Dil	1.2 ution Fact	mg/kg or: 1	MCAWW 340.2 Initial Wgt/Vol: 20 g	10/06/00 Final Wgt/Vol	0283107 :: 100 mL
Nitrate as N	ND Dil	3.0 ution Fact	mg/kg or: 1	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol	
Percent Solids	84.5	0.10 ution Fact	% or: 1	MCAWW 160.3 MOD Initial Wgt/Vol:	10/04-10/05/00 Final Wgt/Vol	•
Sulfate	23.0	5.9 ution Fact	mg/kg	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol.	

NOTE(S):

RL Reporting Limit

Client Sample ID: B8

GC/MS Volatiles

Lot-Sample #: B0I300119-009	Work Order #: DLCN8101	Matrix SOLID
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Prep Batch #...: 0286175

Analysis Date..: 10

Dilution Factor: 1 Initial Wgt/Vol: 5.1 g Final Wgt/Vol.: 5 mL

% Moisture....: 12 **Method.....:** SW846 8260B

111

·		REPORTIN	īG
PARAMETER	RESULT	LIMIT	UNITS
Benzene	ND	5.7	ug/kg
Ethylbenzene	ND	5.7	ug/kg
Toluene	ND	5.7	ug/kg
Xylenes (total)	ND	5.7	ug/kg
	PERCENT	RECOVERY	-
SURROGATE	RECOVERY	LIMITS	
Bromofluorobenzene	80	(28 - 15	9)
1,2-Dichloroethane-d4	117	(51 - 16	8)
Toluene-d8	109	(66 - 15	(2)

(73 - 151)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Dibromofluoromethane .

Client Sample ID: B8

GC Volatiles

Lot-Sample #...: B0I300119-009 Work Order #...: DLCN8103 Matrix....

Date Sampled...: 09/28/00 Date Received..: 09/30/00 Analysis Date..: 10/07/00

Prep Date....: 09/30/00 Prep Batch #...: 0280279

Dilution Factor: 1 Initial Wgt/Vol: 5.33 g Final Wgt/Vol..: 5 mL

% Moisture....: 12 Method....: SW846 8015B

REPORTING

PARAMETER LIMIT RESULT UNITS

ND Gasoline Range Organics 5.7 mg/kg

RECOVERY PERCENT SURROGATE RECOVERY LIMITS

4-Bromofluorobenzene 111 (39 - 163)

NOTE(S):

Client Sample ID: B8

GC Semivolatiles

Lot-Sample #: B0I300119-009 Date Sampled: 09/28/00 Prep Date: 10/02/00 Prep Batch #: 0276444	Work Order #: Date Received: Analysis Date:	09/30/00	Matrix: SOLID
Dilution Factor: 1	<pre>Initial Wgt/Vol:</pre>	29.4 g	Final Wgt/Vol: 1 mL
% Moisture: 12	Method:	SW846 8015	В
		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
Diesel Range Organics	ND	11	mg/kg
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	
Tetratriacontane	59	(25 - 113)	

NOTE(S):

Client Sample ID: B8

TOTAL Metals

Lot-Sample #...: B0I300119-009 Matrix....: SOLID

% Moisture....: 12

		REPORTI	NG		PREPARATION-	WORK
PARAMETER	RESULT	LIMIT	UNITS	METHOD	ANALYSIS DATE	ORDER #
Prep Batch #	: 0285375					
Mercury	ND	0.11	mg/kg	SW846 7471A	10/11/00	DLCN810C
-		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Prep Batch #	: 0285418					
Arsenic	1.5	0.28	mg/kg	SW846 6010B	10/11-10/12/00	DLCN8104
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Lead	2.6	0.28	mg/kg	SW846 6010B	10/11-10/12/00	DLCN8105
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Selenium	0.55	0.28	mg/kg	SW846 6010B	10/11-10/12/00	DLCN8106
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Barium	15.2	5.7	mg/kg	SW846 6010B	10/11-10/12/00	DLCN8107
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Cadmium	ИD	0.57	mg/kg	SW846 6010B	10/11-10/12/00	DLCN8108
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Chromium	126	1.1	mg/kg	SW846 6010B	10/11-10/12/00	DLCN8109
		Dilution Fa	ctor: 1	<pre>Initial Wgt/Vol:</pre>	Final Wgt/Vol.	.: 0
Silver	ND	1.1	mg/kg	SW846 6010B	10/11-10/12/00	DLCN810A
		Dilution Fac	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
NOTE(S):				*		

Client Sample ID: B8

General Chemistry

Lot-Sample #...: B0I300119-009

Work Order #...: DLCN8

Matrix....: SOLID

Date Sampled...: 09/28/00

Date Received..: 09/30/00

ક	Mo	is	tur	e.			. :	12
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PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (solid)	9.0 Di	0.10 lution Fact	No Units	SW846 9045A Initial Wgt/Vol:	09/30/00 Final Wgt/Vol.	0276317 .: 0
Chloride	11.9	5.7 lution Fact	mg/kg	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol.	
Fluoride	1.2	1.1 lution Fact	mg/kg or: 1	MCAWW 340.2 Initial Wgt/Vol: 20 g	10/06/00 Final Wgt/Vol.	0283107 : 100 mL
Nitrate as N	ND Di	2.8 lution Fact	mg/kg or: 1	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol.	
Percent Solids	88.3	0.10 lution Fact	% or: 1	MCAWW 160.3 MOD Initial Wgt/Vol:	10/04-10/05/00 Final Wgt/Vol.	
Sulfate	12.2 Di	5.7 lution Fact	mg/kg or: 1	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol.	

NOTE(S):

RL Reporting Limit

Client Sample ID: B9

GC/MS Volatiles

Lot-Sample #: B0I300119-010	Work Order #:	DLCN9101	Matrix SOLID
Date Sampled: 09/28/00	Date Received:	09/30/00	
<pre>Prep Date: 10/11/00</pre>	Analysis Date:	10/11/00	
Prep Batch #: 0286175			•
Dilution Factor: 1	<pre>Initial Wgt/Vol:</pre>	5.5 g	Final Wgt/Vol: 5 mL
% Moisture: 4.5	Method:	SW846 8260	В
		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
Benzene	ND	5.2	ug/kg
Ethylbenzene	ND	5.2	ug/kg
Toluene	ND	5.2	ug/kg
Xylenes (total)	ND	5.2	ug/kg
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	
Bromofluorobenzene	76	(28 - 159)	
1,2-Dichloroethane-d4	113	(51 - 168)	
Toluene-d8	120	(66 - 152)	
Dibromofluoromethane	111	(73 - 151)	
NOTE(S):			

Client Sample ID: B9

GC Volatiles

Lot-Sample #...: B0I300119-010 Work Order #...: DLCN9103 Matrix....: SOLID Date Sampled...: 09/28/00 Date Received..: 09/30/00 Prep Date....: 09/30/00 Analysis Date..: 10/07/00

Prep Batch #...: 0280279

Dilution Factor: 1 Initial Wgt/Vol: 5.29 q Final Wgt/Vol..: 5 mL

% Moisture....: 4.5 Method..... SW846 8015B

REPORTING

PARAMETER RESULT LIMIT UNITS Gasoline Range Organics ND mg/kg

PERCENT RECOVERY SURROGATE RECOVERY LIMITS 4-Bromofluorobenzene 108 (39 - 163)

NOTE(S):

Client Sample ID: B9

GC Semivolatiles

Lot-Sample #...: B0I300119-010 Work Order #...: DLCN9102 Matrix....: SOLID

Date Sampled...: 09/28/00 Date Received..: 09/30/00 Prep Date....: 10/02/00 Analysis Date..: 10/11/00

Prep Batch #...: 0276444

Dilution Factor: 1 Initial Wgt/Vol: 29.86 g Final Wgt/Vol..: 1 mL

% Moisture....: 4.5 Method....: SW846 8015B

REPORTING

PARAMETER RESULT LIMIT UNITS Diesel Range Organics ND10 mg/kg

PERCENT RECOVERY SURROGATE RECOVERY LIMITS

(25 - 113) Tetratriacontane 64

NOTE(S):

Client Sample ID: B9

TOTAL Metals

Lot-Sample #...: B0I300119-010 Matrix....: SOLID

Date Sampled...: 09/28/00 Date Received..: 09/30/00

% Moisture....: 4.5

		REPORTI	NG		PREPARATION-	WORK
PARAMETER	RESULT	LIMIT	UNITS	METHOD	ANALYSIS DATE	ORDER #
Prep Batch #	: 0285375					
Mercury	ND	0.10	mg/kg	SW846 7471A	10/11/00	DLCN910C
-		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Prep Batch #	: 0285418					
Arsenic	1.8	0.26	mg/kg	SW846 6010B	10/11-10/12/00	DLCN9104
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	. : 0
Lead	4.7	1.3	mg/kg	SW846 6010B	10/11-10/12/00	DLCN9105
		Dilution Fa	ctor: 5	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Selenium	ND	1.3	mg/kg	SW846 6010B	10/11-10/12/00	DLCN9106
		Dilution Fa	ctor: 5	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Barium	99.6	5.2	mg/kg	SW846 6010B	10/11-10/12/00	DLCN9107
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	. : 0
Cadmium	ND	0.52	mg/kg	SW846 6010B	10/11-10/12/00	DLCN9108
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	. : 0
Chromium	46.6	5.2	mg/kg	SW846 6010B	10/11-10/12/00	DLCN9109
		Dilution Fa	ctor: 5	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Silver	ND	1.0	mg/kg	SW846 6010B	10/11-10/12/00	DLCN910A
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	. : 0
NOTE(S):						

Client Sample ID: B9

General Chemistry

Lot-Sample #...: B0I300119-010

Work Order #...: DLCN9

Matrix....: SOLID

Date Sampled...: 09/28/00

Date Received..: 09/30/00

% Moisture....: 4.5

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
рН (solid)	8.3	0.10	No Units	SW846 9045A Initial Wgt/Vol:	09/30/00 Final Wgt/Vol	0276317 : 0
Chloride	38.0	5.2 ution Facto	mg/kg	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol	
Fluoride	2.7	1.0 ution Facto	mg/kg	MCAWW 340.2 Initial Wgt/Vol: 20 g	10/06/00 Final Wgt/Vol	0283107 : 100 mL
Nitrate as N	46.6	2.6 ution Facto	mg/kg	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol	
Percent Solids	95.5	0.10	% or: 1	MCAWW 160.3 MOD Initial Wgt/Vol:	10/04-10/05/00 Final Wgt/Vol	
Sulfate	363	5.2 Ition Facto	mg/kg	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol	

NOTE(S):

RL Reporting Limit

Client Sample ID: B10

GC/MS Volatiles

Lot-Sample #: B0I300119-011 Date Sampled: 09/28/00 Prep Date: 10/11/00 Prep Batch #: 0286175	Work Order #: Date Received: Analysis Date:	09/30/00	Matrix: SOLID
Dilution Factor: 1	<pre>Initial Wgt/Vol:</pre>	5.15 g	Final Wgt/Vol: 5 mL
% Moisture: 1.3	Method:	SW846 8260	В
		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
Benzene	ND	5.1	ug/kg
Ethylbenzene	ND	5.1	ug/kg
Toluene	ND	5.1	ug/kg
Xylenes (total)	ND	5.1	ug/kg
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	
Bromofluorobenzene	77	(28 - 159)	
1,2-Dichloroethane-d4	105	(51 - 168)	
Toluene-d8	117	(66 - 152)	
Dibromofluoromethane	104	(73 - 151)	

NOTE(S):

Client Sample ID: B10

GC Volatiles

Lot-Sample #: B0I300119-011 Date Sampled: 09/28/00 Prep Date: 09/30/00 Prep Batch #: 0280279	Work Order #: Date Received: Analysis Date:	09/30/00	Matrix: SOLID
Dilution Factor: 1	<pre>Initial Wgt/Vol:</pre>	5.23 g	Final Wgt/Vol: 5 mL
% Moisture: 1.3	Method:	SW846 8015	В
		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
Gasoline Range Organics	ND	5.1	mg/kg
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	
4-Bromofluorobenzene	106	(39 - 163)	

NOTE(S):

Client Sample ID: B10

GC Semivolatiles

Lot-Sample #: B0I300119-011 Date Sampled: 09/28/00 Prep Date: 10/02/00 Prep Batch #: 0276444	Work Order #: Date Received: Analysis Date:	09/30/00	Matrix: SOLID
Dilution Factor: 1	<pre>Initial Wgt/Vol:</pre>	29.78 g	<pre>Final Wgt/Vol: 1 mL</pre>
% Moisture: 1.3	Method:	SW846 8015	В
PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	ND	10	mg/kg
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	
Tetratriacontane	71	(25 - 113)	

NOTE(S):

Client Sample ID: B10

TOTAL Metals

Lot-Sample #: Date Sampled: % Moisture:	09/28/00		eceived:	Matrix:	SOLID
		REPORTING		 PREPARATION-	WORK

		REPORTIN	1G		PREPARATION-	WORK
PARAMETER	RESULT	LIMIT	UNITS	METHOD	ANALYSIS DATE	ORDER #
1 !!						
Prep Batch #		0.10	/1		10/11/00	
Mercury	ND	0.10	mg/kg	SW846 7471A	10/11/00	DLCNA10C
		Dilution Fac	tor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Prep Batch #	.: 0285418					
Arsenic	1.6	0.25	mg/kg	SW846 6010B	10/11-10/12/00	DLCNA104
		Dilution Fac	tor: 1	<pre>Initial Wgt/Vol:</pre>	Final Wgt/Vol.	.: 0
Lead	1.6	0.25	mg/kg	SW846 6010B	10/11-10/12/00	DLCNA105
		Dilution Fac		Initial Wgt/Vol:	Final Wgt/Vol.	
Selenium	ND	0.25	mg/kg	SW846 6010B	10/11-10/12/00	DLCNA106
		Dilution Fac		Initial Wgt/Vol:	Final Wgt/Vol.	
Barium	11.5	5.1	mg/kg	SW846 6010B	10/11-10/12/00	DLCNA107
2011 1 Um	22.3	Dilution Fac		Initial Wgt/Vol:	Final Wgt/Vol.	
Cadmium	ND	0.51	mg/kg	SW846 6010B	10/11-10/12/00	DI.CNA108
cadiiiIuiii	N.D	Dilution Fac		Initial Wgt/Vol:	Final Wgt/Vol.	
Chromium	2.2	1.0	mg/kg	SW846 6010B	10/11-10/12/00	DT ("NIX 1 0 0
CITOIIITUII	2.2		3. 3			
		Dilution Fac	tor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	. : U
Silver	ND	1.0	mg/kg	SW846 6010B	10/11-10/12/00	DLCNA10A
		Dilution Fac	tor: 1	<pre>Initial Wgt/Vol:</pre>	Final Wgt/Vol.	. : 0
NOTE (C).						

Client Sample ID: B10

General Chemistry

Lot-Sample #...: B0I300119-011

Work Order #...: DLCNA
Date Received..: 09/30/00

Matrix....: SOLID

Date Sampled...: 09/28/00

% Moisture....: 1.3

					PREPARATION-	PREP
PARAMETER	RESULT	RL	UNITS	METHOD	ANALYSIS DATE	BATCH #
pH (solid)	6.9	0.10	No Units	SW846 9045A	09/30/00	0276317
	Dilu	tion Facto	r: 1	Initial Wgt/Vol:	Final Wgt/Vol	: 0
Chloride	ND	5.1	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276192
	Dilu	tion Facto	r: 1	Initial Wgt/Vol: 10 g	Final Wgt/Vol	: 100 mL
Fluoride	ND	1.0	mg/kg	MCAWW 340.2	10/06/00	0283107
•	Dilu	tion Facto	r: 1	Initial Wgt/Vol: 20 g	Final Wgt/Vol	: 100 mL
Nitrate as N	ND	2.5	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276193
	Dilu	tion Facto	r: 1	Initial Wgt/Vol: 10 g	Final Wgt/Vol	: 100 mL
Percent Solids	98.7	0.10	ક	MCAWW 160.3 MOD	10/04-10/05/00	0279160
	Dilu	tion Facto	r: 1	Initial Wgt/Vol:	Final Wgt/Vol	
Sulfate	7.6	5.1	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276194
	Dilu	tion Facto		Initial Wgt/Vol: 10 g	Final Wgt/Vol	

NOTE(S):

RL Reporting Limit

Client Sample ID: B-3-2

GC/MS Volatiles

Dilution Factor: 1	Lot-Sample #: B0I300119-012 Date Sampled: 09/29/00 Prep Date: 10/11/00 Prep Batch #: 0286175	Work Order #: Date Received: Analysis Date:	09/30/00	Matrix: SOLID
PARAMETER RESULT LIMIT UNITS Benzene ND 5.3 ug/kg Ethylbenzene ND 5.3 ug/kg Toluene ND 5.3 ug/kg Xylenes (total) ND 5.3 ug/kg Xylenes (total) ND 5.3 ug/kg Xylenes (total) PERCENT RECOVERY LIMITS LIMITS Bromofluorobenzene 78 (28 - 159) 1,2-Dichloroethane-d4 153 (51 - 168) Toluene-d8 120 (66 - 152)	Dilution Factor: 1	<pre>Initial Wgt/Vol:</pre>	6.27 g	Final Wgt/Vol: 5 mL
PARAMETER RESULT LIMIT UNITS Benzene ND 5.3 ug/kg Ethylbenzene ND 5.3 ug/kg Toluene ND 5.3 ug/kg Xylenes (total) ND 5.3 ug/kg SURROGATE RECOVERY LIMITS Bromofluorobenzene 78 (28 - 159) 1,2-Dichloroethane-d4 153 (51 - 168) Toluene-d8 120 (66 - 152)	<pre>% Moisture: 5.6</pre>	Method:	SW846 8260	В
Benzene ND 5.3 ug/kg Ethylbenzene ND 5.3 ug/kg Toluene ND 5.3 ug/kg Xylenes (total) ND 5.3 ug/kg SURROGATE RECOVERY LIMITS Bromofluorobenzene 78 (28 - 159) 1,2-Dichloroethane-d4 153 (51 - 168) Toluene-d8 120 (66 - 152)	папаметер	DECIH W		INITEC
Ethylbenzene ND 5.3 ug/kg Toluene ND 5.3 ug/kg Xylenes (total) ND 5.3 ug/kg PERCENT RECOVERY SURROGATE RECOVERY LIMITS Bromofluorobenzene 78 (28 - 159) 1,2-Dichloroethane-d4 153 (51 - 168) Toluene-d8 120 (66 - 152)				
Toluene ND 5.3 ug/kg Xylenes (total) ND 5.3 ug/kg PERCENT RECOVERY SURROGATE RECOVERY LIMITS Bromofluorobenzene 78 (28 - 159) 1,2-Dichloroethane-d4 153 (51 - 168) Toluene-d8 120 (66 - 152)				3, 3
Xylenes (total) ND 5.3 ug/kg PERCENT RECOVERY SURROGATE RECOVERY LIMITS Bromofluorobenzene 78 (28 - 159) 1,2-Dichloroethane-d4 153 (51 - 168) Toluene-d8 120 (66 - 152)	Ethylbenzene	ND	5.3	ug/kg
SURROGATE RECOVERY Bromofluorobenzene 78 (28 - 159) 1,2-Dichloroethane-d4 153 (51 - 168) Toluene-d8 120 (66 - 152)	Toluene	ND	5.3	ug/kg
SURROGATE RECOVERY LIMITS Bromofluorobenzene 78 (28 - 159) 1,2-Dichloroethane-d4 153 (51 - 168) Toluene-d8 120 (66 - 152)	Xylenes (total)	ND	5.3	ug/kg
1,2-Dichloroethane-d4 153 (51 - 168) Toluene-d8 120 (66 - 152)	SURROGATE			
1,2-Dichloroethane-d4 153 (51 - 168) Toluene-d8 120 (66 - 152)	Bromofluorobenzene	78	(28 - 159)	
• • • • • • • • • • • • • • • • • • • •		153	(51 - 168)	
Dibromofluoromethane 142 (73 - 151)	Toluene-d8	120	(66 - 152)	
	Dibromofluoromethane	142	(73 - 151)	

NOTE(S):

Client Sample ID: B-3-2

GC Volatiles

Lot-Sample #...: B0I300119-012 Work Order #...: DLCNC103 Matrix.....: SOLID

 Date Sampled...:
 09/29/00
 Date Received..:
 09/30/00

 Prep Date.....:
 09/30/00
 Analysis Date..:
 10/07/00

Prep Batch #...: 0280279

Dilution Factor: 1 Initial Wgt/Vol: 5.36 g Final Wgt/Vol.: 5 mL

% Moisture....: 5.6 **Method.....:** SW846 8015B

REPORTING

PARAMETER RESULT LIMIT UNITS
Gasoline Range Organics ND 5.3 mg/kg

PERCENT RECOVERY
SURROGATE RECOVERY LIMITS

4-Bromofluorobenzene 105 (39 - 163)

NOTE(S):

Client Sample ID: B-3-2

GC Semivolatiles

Lot-Sample #: B0I300119-012	Work Order #:	DLCNC102	Matri	x:	SOLID
Date Sampled: 09/29/00	Date Received:	09/30/00			
<pre>Prep Date: 10/02/00</pre>	Analysis Date:	10/11/00			
Prep Batch #: 0276444					
Dilution Factor: 10	<pre>Initial Wgt/Vol:</pre>	29.95 g	Final	Wgt/Vol:	1 mL
<pre>% Moisture: 5.6</pre>	Method:	SW846 8015	В		
		REPORTING			
PARAMETER	RESULT	LIMIT	UNITS		
Diesel Range Organics	2300	110	mg/kg		
	PERCENT	RECOVERY			
SURROGATE	RECOVERY	LIMITS			

(25 - 113)

NOTE(S):

Tetratriacontane

NC The recovery and/or RPD were not calculated.

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.

NC, SRD

Client Sample ID: B-3-2

Matrix....: SOLID

TOTAL Metals

Lot-Sample #...: B0I300119-012

Date Sampled...: 09/29/00

Date Received..: 09/30/00

% Moisture....: 5.6

		REPORTI	NG		PREPARATION-	WORK
PARAMETER	RESULT	LIMIT	UNITS	METHOD	ANALYSIS DATE	ORDER #
Prep Batch #	- 0285375					
Mercury	ND	0.11	mg/kg	SW846 7471A	10/11/00	DLCNC10C
•		Dilution Fac		Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Prep Batch #	.: 0285418					
Arsenic	2.1	0.26	mg/kg	SW846 6010B	10/11-10/12/00	DLCNC104
		Dilution Fac	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Lead	3.7	1.3	mg/kg	SW846 6010B	10/11-10/12/00	DLCNC105
		Dilution Fac	ctor: 5	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Selenium	ND	1.3	mg/kg	SW846 6010B	10/11-10/12/00	DLCNC106
		Dilution Fac	ctor: 5	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0
Barium	140	5.3	mg/kg	SW846 6010B	10/11-10/12/00	DLCNC107
		Dilution Fac		Initial Wgt/Vol:	Final Wgt/Vol.	
Cadmium	ND	0.53	mg/kg	SW846 6010B	10/11-10/12/00	DLCNC108
	2.2	Dilution Fac	3. 3	Initial Wgt/Vol:	Final Wgt/Vol.	
Chromium	ND	5.3	mg/kg	SW846 6010B	10/11-10/12/00	חז כאכז מס
CIIIOMITUM	ND	Dilution Fac		Initial Wgt/Vol:	Final Wgt/Vol.	
						
Silver	ND	1.1	mg/kg	SW846 6010B	10/11-10/12/00	DLCNC10A
		Dilution Fac	ctor: 1	<pre>Initial Wgt/Vol:</pre>	Final Wgt/Vol.	.: 0
NOTE (S) ·						

Client Sample ID: B-3-2

General Chemistry

Lot-Sample #...: B0I300119-012

Work Order #...: DLCNC

Date Sampled...: 09/29/00

Date Received..: 09/30/00

Matrix....: SOLID

% Moisture....: 5.6

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (solid)	8.3	0.10 Dilution Fact	No Units	SW846 9045A Initial Wgt/Vol:	09/30/00 Final Wgt/Vol.	0276317 .: 0
Chloride	28.4	5.3 Dilution Fact	mg/kg	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol.	
Fluoride	4.8	1.1 Dilution Fact	J. J	MCAWW 340.2 Initial Wgt/Vol: 20 g	10/06/00 Final Wgt/Vol.	0283107 .: 100 mL
Nitrate as N	ND E	2.6 Dilution Fact	mg/kg cor: 1	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol.	
Percent Solids	94.4	0.10 Dilution Fact	t	MCAWW 160.3 MOD Initial Wgt/Vol:	10/04-10/05/00 Final Wgt/Vol.	
Sulfate	65.4	5.3 Dilution Fact	mg/kg	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol	

NOTE(S):

RL Reporting Limit

Client Sample ID: B-3-1

GC/MS Volatiles

Lot-Sample #: B0I300119-013	Work Order #:	DLCND101	Matrix: SOLID
Date Sampled: 09/29/00	Date Received:	09/30/00	
<pre>Prep Date: 10/11/00</pre>	Analysis Date:	10/11/00	
Prep Batch #: 0286175			
Dilution Factor: 1	<pre>Initial Wgt/Vol:</pre>	5.34 g	Final Wgt/Vol: 5 mL
* Moisture: 7.4	Method:	SW846 8260	B
•		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
Benzene	ND	5.4	ug/kg
Ethylbenzene	ND	5.4	ug/kg
Toluene	ND	5.4	ug/kg
Xylenes (total)	ND	5.4	ug/kg
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	
Bromofluorobenzene	107	(28 - 159)	
1,2-Dichloroethane-d4	137	(51 - 168)	
Toluene-d8	111	(66 - 152)	
Dibromofluoromethane	140	(73 - 151)	

Results and reporting limits have been adjusted for dry weight.

NOTE(S):

Client Sample ID: B-3-1

GC Volatiles

Lot-Sample #: B0I300119-013	Work Order #:	DLCND103	Matrix: SOLID
Date Sampled: 09/29/00	Date Received:	09/30/00	
<pre>Prep Date: 09/30/00</pre>	Analysis Date:	10/07/00	
Prep Batch #: 0280279			
Dilution Factor: 1	<pre>Initial Wgt/Vol:</pre>	5.32 g	Final Wgt/Vol: 5 mL
<pre>% Moisture: 7.4</pre>	Method:	SW846 8015	В
		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
Gasoline Range Organics	ND	5.4	mg/kg
	PERCENT	RECOVERY	

(39 - 163)

RECOVERY

NOTE(S):

SURROGATE

4-Bromofluorobenzene

Client Sample ID: B-3-1

GC Semivolatiles

Lot-Sample # : 801300119-013 Date Sampled : 09/29/00	Work Order #: Date Received.:		Matrix: SOLID
Prep Date 10/02/00	Analysis Date:		
Prep Batch #: 0276444 Dilution Factor: 10 Moisture: 7.4	Initial Wgt/Vol:	•	Final Wgt/Vol: 1 mL
PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	1600	110	mg/kg
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS	
Tetratriacontane	NC, SRD	(25 - 113)	

NOTE(S):

NC The recovery and/or RPD were not calculated.

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery. Results and reporting limits have been adjusted for dry weight.

Client Sample ID: B-3-1

TOTAL Metals

Lot-Sample #...: B0I300119-013 Matrix....: SOL

Date Sampled...: 09/29/00 Date Received..: 09/30/00

% Moisture....: 7.4

		REPORTI	NG		PREPARATION- WORE
PARAMETER	RESULT	LIMIT	UNITS	METHOD	ANALYSIS DATE ORD:
Prep Batch #.	. 0295275				•
Mercury	ND	0.11	mg/kg	SW846 7471A	10/11/00 DLC:
Mercary	ND	Dilution Fa	3. 3	Initial Wgt/Vol:	Final Wgt/Vol: 0
		DITUCION FA	CCOI. I	iniciai wgc/voi:	rinai wgc/voi: 0
Prep Batch #.	: 0285418				
Arsenic	4.6	0.27	mg/kg	SW846 6010B	10/11-10/12/00 DLC
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol. : 0
Lead	5.2	2.7	mg/kg	SW846 6010B	10/11-10/12/00 DLC
		Dilution Fa	ctor: 10	Initial Wgt/Vol:	Final Wgt/Vol: 0
Selenium	ND	2.7	mg/kg	SW846 6010B	10/11-10/12/00 DLC:
		Dilution Fa	ctor: 10	Initial Wgt/Vol:	Final Wgt/Vol: 0
Barium	251	5.4	mg/kg	SW846 6010B	10/11-10/12/00 DLC
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol: 0
Cadmium	ND	0.54	mg/kg	SW846 6010B	10/11-10/12/00 DLC
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol: 0
Chromium	ND	10.8	mg/kg	SW846 6010B	10/11-10/12/00 DLC
		Dilution Fa	ctor: 10	Initial Wgt/Vol:	Final Wgt/Vol: 0
Silver	ND	1.1	mg/kg	SW846 6010B	10/11-10/12/00 DLC
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol: 0
NOTE(S):					

Client Sample ID: B-3-1

General Chemistry

Lot-Sample #...: B0I300119-013

Work Order #...: DLCND
Date Received..: 09/30/00

Matrix....: SOLID

Date Sampled...: 09/29/00

% Moisture....: 7.4

					PREPARATION-	PRE:
PARAMETER	RESULT	RL	UNITS	METHOD	ANALYSIS DATE	BAT
pH (solid)	8.7	0.10	No Units	SW846 9045A	09/30/00	027:
		Dilution Fact	or: 1	<pre>Initial Wgt/Vol:</pre>	Final Wgt/Vol	: 0
Chloride	20.6	5.4	mg/kg	MCAWW 300.0A	09/30~10/01/00	007/
Chioride	20.6	Dilution Fact		Initial Wgt/Vol: 10 g	Final Wgt/Vol	
Fluoride	11.7	1.1	mg/kg	MCAWW 340.2	10/06/00	028
		Dilution Fact	or: 1	Initial Wgt/Vol: 20 g	Final Wgt/Vol	: 100
Nitrate as N	ND	2.7	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276
		Dilution Fact	or: 1	Initial Wgt/Vol: 10 g	Final Wgt/Vol	: 100
Percent Solids	92.6	0.10	ક	MCAWW 160.3 MOD	10/04-10/05/00	027:
		Dilution Fact	or: 1	Initial Wgt/Vol:	Final Wgt/Vol	: 0
Sulfate	41.3	5.4	mg/kg	MCAWW 300.0A	09/30-10/01/00	027
		Dilution Fact	or: 1	Initial Wgt/Vol: 10 g	Final Wgt/Vol	: 100

NOTE(S):

RL Reporting Limit

Client Sample ID: B-3-5

GC/MS Volatiles

Lot-Sample #: B0I300119-014			Matrix: SOLID
Date Sampled: 09/29/00	Date Received:	09/30/00	
<pre>Prep Date: 09/30/00</pre>	Analysis Date:	10/11/00	
Prep Batch #: 0286314			
Dilution Factor: 1	<pre>Initial Wgt/Vol:</pre>	5.65 g	Final Wgt/Vol: 5 mL
% Moisture: 5.1	Method:	SW846 8260	В
		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
Benzene	ND	260	ug/kg
Ethylbenzene	1800	260	ug/kg
Toluene	ND	260	ug/kg
Xylenes (total)	2700	260	ug/kg
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	
1,2-Dichloroethane-d4	127	(57 - 132)	
Bromofluorobenzene	118	(58 - 135)	
Dibromofluoromethane	126	(57 - 130)	
Toluene-d8	105	(61 - 133)	
NOTE(S):			

CONOCO -

Client Sample ID: B-3-5

GC Volatiles

Lot-Sample #: B0I300119-014	Work Order #:	DLCNE103	Matrix SOLID
Date Sampled: 09/29/00	Date Received:	09/30/00	
<pre>Prep Date: 09/30/00</pre>	Analysis Date:	10/09/00	
Prep Batch #: 0280279		•	
Dilution Factor: 5	<pre>Initial Wgt/Vol:</pre>	5.27 g	Final Wgt/Vol: 5 mL
% Moisture: 5.1	Method:	SW846 8015	В
		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
Gasoline Range Organics	150	26	mg/kg
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	
4-Bromofluorobenzene	NC, SRD	(39 - 163)	

NOTE(S):

NC The recovery and/or RPD were not calculated.

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery. Results and reporting limits have been adjusted for dry weight.

Client Sample ID: B-3-5

GC Semivolatiles

Lot-Sample #: B0I300119-014	Work Order #:	DLCNE102	Matrix SOLID
Date Sampled: 09/29/00	Date Received:	09/30/00	
<pre>Prep Date: 10/02/00</pre>	Analysis Date:	10/11/00	
Prep Batch #: 0276444			
Dilution Factor: 10	<pre>Initial Wgt/Vol:</pre>	29.8 g	Final Wgt/Vol: 1 mL
% Moisture: 5.1	Method:	SW846 8015	В
		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
Diesel Range Organics	1400	110	mg/kg
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	
Tetratriacontane	NC, SRD	(25 - 113)	

NOTE(S):

NC The recovery and/or RPD were not calculated.

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.

Client Sample ID: B-3-5

TOTAL Metals

Lot-Sample #...: B0I300119-014 Matrix.....: SOLI

% Moisture....: 5.1

		REPORTI	NG		PREPARATION- WORE
PARAMETER	RESULT	LIMIT	UNITS	METHOD	ANALYSIS DATE ORDE
Prep Batch #	. 0285375				
Mercury	ND	0.11	mg/kg	SW846 7471A	10/11/00 DLC
rici cui y	112	Dilution Fa	3, 3	Initial Wgt/Vol:	Final Wqt/Vol.:: 0
		244444		initial ngt, vol.	rinar ngc/vor o
Prep Batch #	: 0285418				
Arsenic	1.1	0.26	mg/kg	SW846 6010B	10/11-10/12/00 DLC
		Dilution Fa	ctor: 1	<pre>Initial Wgt/Vol:</pre>	Final Wgt/Vol: 0
Lead	2.2	0.26	mg/kg	SW846 6010B	10/11-10/12/00 DLC
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol: 0
Selenium	ND	0.26	mg/kg	SW846 6010B	10/11-10/12/00 DLC
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol: 0
Barium	27.8	5.3	mg/kg	SW846 6010B	10/11-10/12/00 DLC
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol: 0
Cadmium	ND	0.53	mg/kg	SW846 6010B	10/11-10/12/00 DLC!
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol: 0
Chromium	2.6	1.1	mg/kg	SW846 6010B	10/11-10/12/00 DLC
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol: 0
Silver	ND	1.1	mg/kg	SW846 6010B	10/11-10/12/00 DLC
		Dilution Fa	ctor: 1	Initial Wgt/Vol:	Final Wgt/Vol: 0
NOTE(S):					

CONOCO .

Client Sample ID: B-3-5

General Chemistry

Date Received..: 09/30/00

Lot-Sample #...: B0I300119-014

Work Order #...: DLCNE

Matrix....: SOLID

Date Sampled...: 09/29/00

% Moisture....: 5.1

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREF BATC
pH (solid)	8.6	0.10 Dilution Facto	No Units	SW846 9045A Initial Wgt/Vol:	09/30/00 Final Wgt/Vol	
Chloride	41.7	5.3 Dilution Facto		MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol	
Fluoride	ND	1.1 Dilution Facto	J, J	MCAWW 340.2 Initial Wgt/Vol: 20 g	10/06/00 Final Wgt/Vol	
Nitrate as N	ND	2.6 Dilution Facto		MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol	
Percent Solids	94.9	0.10 Dilution Facto	% or: 1	MCAWW 160.3 MOD Initial Wgt/Vol:	10/04-10/05/00 Final Wgt/Vol	
Sulfate	7.8	5.3 Dilution Facto	mg/kg	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol	

NOTE(S):

RL Reporting Limit

GC/MS Volatiles

Client Lot #...: B0I300119 Work Order #...: DM1RH1AA

MB Lot-Sample #: B0J120000-175

Matrix..... SOLID

Prep Date....: 10/11/00 Prep Batch #...: 0286175

Final Wgt/Vol..: 5 mL

Analysis Date..: 10/11/00 Dilution Factor: 1

Initial Wgt/Vol: 5 g

REPORTING

PARAMETER	RESULT	LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
Bromofluorobenzene	93	(28 - 159	9)	
1,2-Dichloroethane-d4	102	(51 ~ 168	3)	
Toluene-d8	105	(66 - 152	?)	
Dibromofluoromethane	99	(73 - 151	_)	

NOTE(S):

GC/MS Volatiles

Client Lot #...: B0I300119

Work Order #...: DM2GT1AA

Matrix....: SOLID

MB Lot-Sample #: B0J120000-314

Prep Date....: 09/30/00

Final Wgt/Vol..: 5 mL

Analysis Date..: 10/11/00 Dilution Factor: 1

Prep Batch #...: 0286314

Initial Wgt/Vol: 5 q

PEDOPTING

		REPORTI.	NG		
PARAMETER	RESULT	LIMIT	UNITS	METHOD	
Benzene	ND	250	ug/kg	SW846 8260B	
Ethylbenzene	ND	250	ug/kg	SW846 8260B	
Toluene	ND	250	ug/kg	SW846 8260B	
Xylenes (total)	ND	250	ug/kg	SW846 8260B	
	PERCENT	RECOVER	Y		
SURROGATE	RECOVERY	LIMITS			
1,2-Dichloroethane-d4	113	(57 - 1	32)		
Bromofluorobenzene	104	(58 - 1	35)		
Dibromofluoromethane	113	(57 - 1)	30)		
Toluene-d8	108	(61 - 1	33)		
NOTE(S):					

GC Volatiles

Client Lot #...: B0I300119

MB Lot-Sample #: B0J060000-279

Analysis Date..: 10/06/00

Dilution Factor: 1

4-Bromofluorobenzene

Work Order #...: DLNA9101

Matrix....: SOLID

Final Wgt/Vol..: 5 mL

Prep Date....: 09/30/00

Prep Batch #...: 0280279

Initial Wgt/Vol: 5 g

REPORTING

PARAMETER

Gasoline Range Organics

RESULT

LIMIT 5.0

UNITS mg/kg METHOD SW846 8015B

ND

PERCENT RECOVERY RECOVERY LIMITS

102

(39 - 163)

NOTE(S):

SURROGATE

GC Semivolatiles

Client Lot #...: B0I300119

MB Lot-Sample #: B0J020000-444

Work Order #...: DLEEX101

Matrix....: SOLID

Prep Date....: 10/02/00

Final Wgt/Vol..: 1 mL

Analysis Date..: 10/06/00 Dilution Factor: 1

Initial Wgt/Vol: 30 g

Prep Batch #...: 0276444

REPORTING

PARAMETER

RESULT

LIMIT UNITS

METHOD

Diesel Range Organics

ND

mg/kg SW846 8015B

PERCENT RECOVERY RECOVERY

SURROGATE Tetratriacontane

86

LIMITS (25 - 113)

TOTAL Metals

Client Lot #: B0I300119	Matrix: SOLID
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PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MB Lot-Sample	e #: B0J11000	0-375 Prep Bat	ch #	: 0285375		
Mercury	ND	0.10	mg/kg	SW846 7471A	10/11/00	DLXH5101
		Dilution Factor	c: 1	Initial Wgt/Vol: 0	Final Wgt/Vol.	.: 0
MB Lot-Sample	e #: B0J11000	0-418 Prep Ba t	ch #:	: 0285418		
Arsenic	ND	0.25	mg/kg	SW846 6010B	10/11-10/12/00	DLXR1102
		Dilution Factor	f: 1	Initial Wgt/Vol: 0	Final Wgt/Vol.	. : 0
Lead	ND	0.25	mg/kg	SW846 6010B	10/11-10/12/00	DLXR1103
		Dilution Factor	: 1	Initial Wgt/Vol: 0	Final Wgt/Vol.	.: 0
Selenium	ND	0.25	mg/kg	SW846 6010B	10/11-10/12/00	DLXR1104
		Dilution Factor	: 1	Initial Wgt/Vol: 0	Final Wgt/Vol.	.: 0
Barium	ND	5.0	mg/kg	SW846 6010B	10/11-10/12/00	DLXR1105
		Dilution Factor	: 1	Initial Wgt/Vol: 0	Final Wgt/Vol.	.: 0
Cadmium	ND	0.50	mg/kg	SW846 6010B	10/11-10/12/00	DLXR1106
		Dilution Factor	: 1	Initial Wgt/Vol: 0	Final Wgt/Vol.	.: 0
Chromium	ND	1.0	mg/kg	SW846 6010B	10/11-10/12/00	DLXR1107
		Dilution Factor	:: 1	Initial Wgt/Vol: 0	Final Wgt/Vol.	.: 0
Silver	ND	1.0	mg/kg	SW846 6010B	10/11-10/12/00	DLXR1101
		Dilution Factor	: 1	Initial Wgt/Vol: 0	Final Wgt/Vol.	.: 0
NOTE(S):						

General Chemistry

Client Lot #...: B0I300119 Matrix.....: SOLID

PARAMETER Chloride	RESULT	REPORTING LIMIT UNITS METHOD Work Order #: DLDKC101 MB Lot-Sample 5.0 mg/kg MCAWW 300.0A	#: B0J020000-192
	ND	3, 3	Final Wgt/Vol: 100 mL
Fluoride	MD	Work Order #: DLR2D101 MB Lot-Sample	
	ND	1.0 mg/kg MCAWW 340.2 Dilution Factor: 1 Initial Wgt/Vol: 20	, ,
Nitrate as N		Work Order #: DLDKD101 MB Lot-Sample	#: B0J020000-193
	ND	2.5 mg/kg MCAWW 300.0A Dilution Factor: 1 Initial Wgt/Vol: 10	•
Sulfate		Work Order #: DLDKE101 MB Lot-Sample	#: B0J020000-194
	ND	5.0 mg/kg MCAWW 300.0A Dilution Factor: 1 Initial Wgt/Vol: 10	

NOTE(S):

GC/MS Volatiles

Client Lot #...: B0I300119 Work Order #...: DM1RH1AC-LCS Matrix.....: SOLID

LCS Lot-Sample#: B0J120000-175 DM1RH1AD-LCSD

Prep Date....: 10/11/00 Analysis Date..: 10/11/00

Prep Batch #...: 0286175

Dilution Factor: 1 Final Wgt/Vol..: 5 mL

Initial Wgt/Vol: 5 g

	PERCENT	RECOVERY	RPD	
PARAMETER	RECOVERY	LIMITS	RPD LIMIT	S METHOD
1,1-Dichloroethene	108	(78 - 120)		SW846 8260B
	109	(78 - 120)	1.1 (0-42) SW846 8260B
Chlorobenzene	100	(76 - 120)		SW846 8260B
	104	(76 - 120)	3.2 (0-28) SW846 8260B
Trichloroethene	105	(76 - 120)		SW846 8260B
	101	(76 - 120)	3.5 (0-44) SW846 8260B
Benzene	100	(78 - 120)		SW846 8260B
	99	(78 - 120)	0.52 (0-39) SW846 8260B
Toluene	107	(75 - 120)		SW846 8260B
	109	(75 - 120)	1.8 (0-29) SW846 8260B
		PERCENT	RECOVERY	
SURROGATE		RECOVERY	LIMITS	
Bromofluorobenzene		104	(28 - 159)	
		105	(28 - 159)	
1,2-Dichloroethane-d4		96	(51 - 168)	
		95	(51 - 168)	
Toluene-d8		112	(66 - 152)	
		113	(66 - 152)	
Dibromofluoromethane		101	(73 - 151)	
		100	(73 - 151)	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

GC/MS Volatiles

Client Lot #...: B0I300119 Work Order #...: DM2GT1AC-LCS Matrix.....: SOLID

LCS Lot-Sample#: B0J120000-314 DM2GT1AD-LCSD

Prep Date....: 09/30/00 **Analysis Date..:** 10/11/00

Prep Batch #...: 0286314

Dilution Factor: 1 Final Wgt/Vol..: 5 mL

Initial Wgt/Vol: 5 g

	PERCENT	RECOVERY	RPD	
PARAMETER	RECOVERY	LIMITS	RPD LIMITS	METHOD
1,1-Dichloroethene	98	(57 - 120)		SW846 8260B
	99	(57 - 120)	0.90 (0-29)	SW846 8260B
Chlorobenzene	97	(75 - 120)		SW846 8260B
	103	(75 - 120)	6.0 (0-28)	SW846 8260B
Trichloroethene	95	(71 - 120)		SW846 8260B
	100	(71 - 120)	5.2 (0-28)	SW846 8260B
Benzene	98	(75 - 120)		SW846 8260B
	99	(75 - 120)	1.5 (0-28)	SW846 8260B
Toluene	95	(75 - 120)		SW846 8260B
	102	(75 - 120)	6.6 (0-28)	SW846 8260B
		PERCENT	RECOVERY	
SURROGATE		RECOVERY	LIMITS	
1,2-Dichloroethane-d4		116	(57 - 132)	
		113	(57 - 132)	
Bromofluorobenzene		111	(58 - 135)	
		112	(58 - 135)	
Dibromofluoromethane		113	(57 - 130)	
		111	(57 - 130)	
Toluene-d8		110	(61 - 133)	
		114	(61 - 133)	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

GC Volatiles

Client Lot #...: B0I300119 Work Order #...: DLNA9102-LCS Matrix.....: SOLID

LCS Lot-Sample#: B0J060000-279 DLNA9103-LCSD

Prep Batch #...: 0280279

Dilution Factor: 1 Final Wgt/Vol..: 5 mL

Initial Wgt/Vol: 5 g

	PERCENT	RECOVERY		RPD	
PARAMETER	RECOVERY	LIMITS	RPD	LIMITS	METHOD
Gasoline Range Organics	115	(26 - 115)			SW846 8015B
	99	(26 - 115)	15	(0-25)	SW846 8015B

 SURROGATE
 RECOVERY
 LIMITS

 4-Bromofluorobenzene
 110
 (39 - 163)

 98
 (39 - 163)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

GC Semivolatiles

Client Lot #...: B0I300119 Work Order #...: DLEEX102-LCS Matrix.....: SOLID

LCS Lot-Sample#: B0J020000-444 DLEEX103-LCSD

Prep Date....: 10/02/00 Analysis Date..: 10/06/00

Initial Wqt/Vol: 30 q

PERCENT RECOVERY RPD PARAMETER RECOVERY LIMITS LIMITS RPD METHOD Diesel Range Organics 99 (35 - 115) SW846 8015B 99 (35 - 115)SW846 8015B 0.67 (0-34)

 SURROGATE
 RECOVERY
 LIMITS

 Tetratriacontane
 86
 (25 - 113)

 86
 (25 - 113)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

TOTAL Metals

				*	
Client Lot #:	B0I300119			Matrix	SOLID
PARAMETER		RECOVERY LIMITS		PREPARATION- ANALYSIS DAT	
LCS Lot-Sample#:	103	(90 - 110)	SW846 7471A	10/11/00	
		Dilution Facto	or: 1 Init	ial Wgt/Vol: 0	Final Wgt/Vol: 0
LCS Lot-Sample#:	В0J110000-	418 Prep Ba	tch #: 0285	418	
				10/11-10/12/	00 DLXR110A
		Dilution Facto	or: 1 Init	ial Wgt/Vol: 0	Final Wgt/Vol: 0
Selenium	92	(85 - 115)	SW846 6010B	10/11-10/12/0	00 DLXR110C
				ial Wgt/Vol: 0	
Arsenic	96			10/11-10/12/0 ial Wgt/Vol: 0	
Barium	104			10/11-10/12/0	
Cadmium	101	(85 - 115)	SW846 6010B	10/11-10/12/0	OO DLXR110E
Chromium	99	(85 - 115)	SW846 6010B	10/11-10/12/0	00 DLXR110F
Silver	95	(85 - 115)	SW846 6010B	10/11-10/12/0ial Wgt/Vol: 0	00 DLXR1108
NOTE (S) ·					12

General Chemistry

Lot-Sample #: B0I300119	Matrix: SOLID
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	PERCENT	RECOVERY RPD		PREPARATION- PREP
PARAMETER	RECOVERY	LIMITS RPD LIMITS	METHOD	ANALYSIS DATE BATCH #
pH (solid)		WO#:DLE4R101-LCS/DLE	4R102-LCSD LCS Lo	t-Sample#: B0J020000-317
	100	(99 - 101)	SW846 9045A	09/30/00 0276317
		(99 - 101) 0.28 (0-20)		
		Dilution Factor: 1	Initial Wgt/Vol:	Final Wgt/Vol: 0
Chloride		WO#:DLDKC102-LCS/DLD	KC103-LCSD LCS Lo	t-Sample#: B0J020000-192
		(85 - 110)		
	94	(85 - 110) 0.25 (0-10)	MCAWW 300.0A	09/30-10/01/00 0276192
		Dilution Factor: 1	Initial Wgt/Vol: 1	.0 g Final Wgt/Vol: 100 mL
Fluoride		WO#:DLR2D102-LCS/DLR	2D103-LCSD LCS Lo	t-Sample#: B0J090000-107
	96	(90 - 110)	MCAWW 340.2	10/06/00 0283107
	96	(90 - 110) 0.0 (0-10)	MCAWW 340.2	10/06/00 0283107
		Dilution Factor: 1	Initial Wgt/Vol: 2	0 g Final Wgt/Vol: 100 mL
Nitrate as N		WO#:DLDKD102-LCS/DLD	KD103-LCSD LCS Lo	t-Sample#: B0J020000-193
	96	(90 - 110)	MCAWW 300.0A	09/30-10/01/00 0276193
	96	(90 - 110) 0.0 (0-11)	MCAWW 300.0A	09/30-10/01/00 0276193
		Dilution Factor: 1	Initial Wgt/Vol: 1	.0 g Final Wgt/Vol: 100 mL
Sulfate		WO#:DLDKE102-LCS/DLD	KE103-LCSD LCS Lo	t-Sample#: B0J020000-194
	98	(82 - 115)		, ,
	98	(82 - 115) 0.28 (0-10)	MCAWW 300.0A	09/30-10/01/00 0276194
		Dilution Factor: 1	Initial Wgt/Vol: 1	.0 g Final Wgt/Vol: 100 mL

NOTE(S):

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: B0I300119 Matrix.....: SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS RPD	RPD LIMITS	METHOD	PREPARATION- WORK ANALYSIS DATE ORDER #				
MS Lot-Samol	MS Lot-Sample #: B0I300119-001 Prep Batch #: 0285418								
Arsenic	88	(85 - 115)			10/11-10/12/00 DLCMW10M				
	87	(85 - 115) 0.29	(0-10)		10/11-10/12/00 DLCMW10N				
		Dilution Fac	tor: 1	Initial Wgt/Vol:	O Final Wgt/Vol: 0				
Lead	96	(85 - 115)		SW846 6010B	10/11-10/12/00 DLCMW10P				
	95	(85 - 115) 0.58	(0-10)	SW846 6010B	10/11-10/12/00 DLCMW10Q				
		Dilution Fac	tor: 5	Initial Wgt/Vol:	0 Final Wgt/Vol: 0				
Selenium	80 N	(85 - 115)		SW846 6010B	10/11-10/12/00 DLCMW10R				
	84 N	(85 - 115) 4.5			10/11-10/12/00 DLCMW10T				
		Dilution Fac	tor: 5	Initial Wgt/Vol:	0 Final Wgt/Vol: 0				
Barium	NC,MSB	(85 - 115)		SW846 6010B	10/11-10/12/00 DLCMW10U				
	NC,MSB	(85 - 115)	(0-13)	SW846 6010B	10/11-10/12/00 DLCMW10V				
		Dilution Fac	tor: 1	Initial Wgt/Vol:	0 Final Wgt/Vol: 0				
Cadmium	84 N	(85 - 115)		SW846 6010B	10/11-10/12/00 DLCMW10W				
	84 N	(85 - 115) 0.10	(0-10)	SW846 6010B	10/11-10/12/00 DLCMW10X				
		Dilution Fac	tor: 1	Initial Wgt/Vol:	0 Final Wgt/Vol: 0				
Chromium	129 N	(85 - 115)		SW846 6010B	10/11-10/12/00 DLCMW110				
	104 *	(85 - 115) 18	(0-10)	SW846 6010B	10/11-10/12/00 DLCMW111				
		Dilution Fac	tor: 5	Initial Wgt/Vol:	0 Final Wgt/Vol: 0				
Silver	85	(85 - 115)		SW846 6010B	10/11-10/12/00 DLCMW10K				
	84 N	(85 - 115) 1.1	(0-10)	SW846 6010B	10/11-10/12/00 DLCMW10L				
		Dilution Fac	tor: 1	<pre>Initial Wgt/Vol:</pre>	O Final Wgt/Vol: 0				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

N Spiked analyte recovery is outside stated control limits.

NC The recovery and/or RPD were not calculated.

^{*} Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: B0I300119 Matrix.....: SOLID

Date Sampled...: 09/27/00 Date Received..: 09/29/00

PERCENT RECOVERY RPD PREPARATION- WORK
PARAMETER RECOVERY LIMITS RPD LIMITS METHOD ANALYSIS DATE ORDER #

MS Lot-Sample #: B0I290183-008 Prep Batch #...: 0285375

Mercury 107 (69 - 127) SW846 7471A 10/11/00 DL9C410U

101 (69 - 127) 6.0 (0-20) SW846 7471A 10/11/00 DL9C410V Dilution Factor: 1 Initial Wgt/Vol: 0 Final Wgt/Vol.: 0

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: B0I300119

Matrix..... SOLID

Date Sampled...: 09/29/00

/29/00 Da

Date Received..: 09/30/00

PARAMETER Chloride	108	WO#: (85 - 110) (85 - 110)	RPD LIMITS DLCNE10K-MS/ 0.31 (0-10)	METHOD DLCNE10L-MSD MS : MCAWW 300.0A MCAWW 300.0A Initial Wgt/Vol:	ANALYSIS DATE Lot-Sample #: B0 09/30-10/01/00 09/30-10/01/00	<u>BATCH #</u> I300119-014 0276192 0276192
Fluoride	102	(90 - 110) (90 - 110)	0.71 (0-10)	DLCNC10N-MSD MS : MCAWW 340.2 MCAWW 340.2 Initial Wgt/Vol:	10/06/00 10/06/00	0283107 0283107
Nitrate as N	100	(90 - 110) (90 - 110)	0.04 (0-11)	DLCNE10N-MSD MS : MCAWW 300.0A MCAWW 300.0A Initial Wgt/Vol:	09/30-10/01/00 09/30-10/01/00	0276193 0276193
Sulfate	101	(82 - 115) (82 - 115)	0.46 (0-10)	DLCNE10Q-MSD MS 1 MCAWW 300.0A MCAWW 300.0A Initial Wgt/Vol:	09/30-10/01/00 09/30-10/01/00	0276194 0276194

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: B0I300119 Work Order #...: DLCNE-SMP Matrix.....: SOLID DLCNE-DUP

% Moisture....: 5.1

* MOISCUIE							
	DUPLICATE			RPD		PREPARATION-	PREP
PARAM RESULT	RESULT	UNITS	RPD	LIMIT	METHOD	ANALYSIS DATE	BATCH #
pH (solid)					SD Lot-Sample #:	B0I300119-014	
8.6	8.6	No Units	0.0	(0-20)	SW846 9045A	09/30/00	0276317
		Dilution Fact	or: 1	In	itial Wgt/Vol:	Final Wgt/Vol:	0
Percent Solids					SD Lot-Sample #:	B0I300119-014	
94.9	94.4	%	0.61	(0-20)	MCAWW 160.3 MOD	10/04-10/05/00	0279160
		Dilution Fact	or: 1	In	itial Wgt/Vol:	Final Wgt/Vol:	0

SEVERN TRENT LABS

TAMPA LABORATORY CONDITION UPON RECEIPT FORM

Client (name or ID):	<u>M</u>	Project name:	Mal	~/L	mi	<u></u>	
Date received: a 9/30	00	Lot number: _		V			
Received by:	Vac hultu	 _ CUR completed by: _	Cu	il	M	chi	Ota
	· · · · · · · · · · · · · · · · · · ·			0150		CIOV	209
Cooler/Shipping Information:	-						
Type: ☐ Cooler ☐ Box ☐ Other (descr	ibe)						
Cooler temperature: Identify the coole	r and document the	temperature blank or ice	water mea	asure	ment		
Cooler ID/Track #						- <u>-</u>	
Temp (°C)							
Cooler ID/Track #							
Temp (°C)							
Other Information: Any "NO" responses or discrepancies	should be explained i	n the "Comments" sectio	n below. If	fan N	CM wa	s initiat	ed,
write the NCM number in the appropria	te space.						
	CHECKLIST		······	YES	NO	NA	NCM#
1. Were custody seals on shipping contain							
If "Yes," check one: ☐ CUSTODY SE		BLE TO SAVE CUSTODY	SEAL		_		
2. Were custody papers properly included		1.10					
3. Were custody papers properly filled out		bels)?				<u> </u>	ļ
4. Did all bottles arrive in good condition							
5. Were all bottle labels complete (sample		is, preservatives)?		_			
6. Were correct bottles used for the tests in		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					-
7. Were proper sample preservation techni		• 1				<u> </u>	-
8. Were samples received within holding t							ļ <u>-</u>
9. Were all VOA bottles checked for the p		•				İ	
If air bubbles were found, indicate in co							
10. Were samples in direct contact with we							
11. Were the samples received with a temper							
If "No," check one: Unable to deter		rom ice/water near samples					1 1
12. Was the cooler temperature less than 6°							
13. Were sample pHs checked and recorded							
NOTE: VOA samples are checked by la 14. Were samples accepted into the laborate					-		
Comments:		ne m C-0-c) Ox	Q) <u></u>	<u>\</u>	
Project Manager initials/date reviewed:	10-2-0	310n					

Chain of Custody Record



3. Relinquished By Date Time 3. Received By Date	2. Received By	1. Relinquished By Time, 1. Received By (ALAL MC MULty) Date 1. Received By (ALAL MC MULty)	24 Hours 48 Hours 7 Days 14 Days 21 Days Other	OC Requirements (Specify)	mable Skin Irritant Poison B Unknown Return To Client Disposal By Lab Archive For Months		B10 7/28 jy: y0	1	BB 9/28 15:10	B7 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	X	B6 14:45 10 1 1 1 1 1 1 1	B5 14:50 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	B4 / 13·20 /		BI 9/18 9/15 × XXXXXXX	Sample I.D. No. and Description Containers for each sample may be combined on one line) Date Time A S S S S S S S S S S S S S S S S S S	Matrix Containers &	Carrier/Waybill Number	Albuquerque MM 87112 Party Quiroz	10601 Lomas NE side 106 505 - 237 - 8440	Walm Trumblogies Telephone Number (Mas Code) Fax Number (Jan Cel)	
Date Time	Date Time	Date (1/30/20) Time (0.36			(A lee may be assessed if samples are retained longer than 3 months)						X	X					F		Special Instructions/	needed)	Page of	129/00 Chain of Custody Number 150	

2

Chain of Custody Record



Comments	3. Relinquished By	2. Relinquished By	24 Hours 48 Hours 7 Days 14 Days 21 Days	ne Required	mable 🔲 Skin Irritant 🔲 Poison B	Possible Hazard Identification				S. C.	8-2-2- Way	B-3-5	B-3-1 9/29	Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Contract/Purchase Order/Quote No.	Project Name Majaman.	Albuguargue NM 87112	633	Client Musein Technologies	QUA-4124 0797
	Date	Date Date	Other	_ ⊢	☐ Unknown ☐ Re	Samol					~~		11:30	Time Aqueous		Carrier/Waybill Number	Rucky (2)	SC Seleptione Number	Project Manager	
	Time	Time		j	ež	Sample Disposal					}	' ()	X	Sed. Soil Unpres.	Matrix	umber	20	505 -237		
o. recorded by	3 Received Rv	2. Received By		Š	☐ Disposal By Lab									H2SO4 HNOS HCI NaOH ZnAc/ NaOH	Containers & Preservatives		Lab Contact	37-8441	anien	
		Carol McMulty			Archive For Months									BZ GAR DR NO NO F PH	<u>,</u> 0,		Analysis (Attach list if more space is needed)	2 , Lab Number	Date 9/24/00	
Date		104/30/00 Time 0 3 0		13)	(A lee may be assessed if samples are retained longer than 3 months)									-	Conditions of Receipt	Special Instructions/		Page 2 of 2	Chain of Custody Number 156	

DISTRIBUTION: WHITE - Slays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Client Sample ID: SOIL COMP

GC/MS Volatiles

Lot-Sample #: B0I300119-007 Date Sampled: 09/28/00 Prep Date: 10/11/00 Prep Batch #: 0286175	Work Order #: Date Received: Analysis Date:	09/30/00	Matrix: SOLID
Dilution Factor: 1	<pre>Initial Wgt/Vol:</pre>	5.52 g	Final Wgt/Vol: 5 mL
% Moisture: 4.8	Method:	SW846 8260	В
		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
Benzene	ND	5.3	ug/kg
Ethylbenzene	ND	5.3	ug/kg
Toluene	ND	5.3	ug/kg
Xylenes (total)	ND	5.3	ug/kg
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	
Bromofluorobenzene	73	(28 - 159)	
1,2-Dichloroethane-d4	114	(51 - 168)	
Toluene-d8	117	(66 - 152)	
Dibromofluoromethane	114	(73 - 151)	

NOTE(S):

Client Sample ID: SOIL COMP

GC Volatiles

Lot-Sample #: B0I300119-007 Date Sampled: 09/28/00 Prep Date: 09/30/00 Prep Batch #: 0280279	Work Order #: Date Received: Analysis Date:	09/30/00	Matrix: SOLID
Dilution Factor: 1 % Moisture: 4.8	<pre>Initial Wgt/Vol: Method:</pre>	_	Final Wgt/Vol: 5 mL
PARAMETER Gasoline Range Organics	RESULT ND		NITS g/kg

PERCENT

RECOVERY

RECOVERY

LIMITS

4-Bromofluorobenzene

101

(39 - 163)

NOTE(S):

SURROGATE

Client Sample ID: SOIL COMP

GC Semivolatiles

Lot-Sample #: B0I300119-007 Date Sampled: 09/28/00 Prep Date: 10/02/00	Work Order #: Date Received: Analysis Date:	09/30/00	Matrix: SOLID
Prep Batch #: 0276444 Dilution Factor: 1	Initial Wqt/Vol:	20 12 ~	Final Wgt/Vol: 1 mL
			<i>3 ·</i>
% Moisture: 4.8	Method:	SW846 8015	В
PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	47	11	mq/kq
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS	3 . 3
Tetratriacontane	66	(25 - 113)	

Results and reporting limits have been adjusted for dry weight.

NOTE(S):

Client Sample ID: SOIL COMP

TOTAL Metals

Lot-Sample #...: B0I300119-007 Matrix....: SOLID

% Moisture....: 4.8

PARAMETER	RESULT	REPORTI LIMIT	NG <u>UNITS</u>	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #	: 0285375					
Mercury	0.15	0.11 Dilution Fa	mg/kg	SW846 7471A Initial Wgt/Vol:	10/11/00 Final Wgt/Vol.	DLCN610 C .: 0
Prep Batch #	: 0285418					
Arsenic	1.2	0.26 Dilution Fa	mg/kg ctor: 1	SW846 6010B Initial Wgt/Vol:	10/11-10/12/00 Final Wgt/Vol.	
Lead	3.4	0.26 Dilution Fa	mg/kg	SW846 6010B Initial Wgt/Vol:	10/11-10/12/00 Final Wgt/Vol.	
Selenium	ND	0.26 Dilution Fa	mg/kg ctor: 1	SW846 6010B Initial Wgt/Vol:	10/11-10/12/00 Final Wgt/Vol.	
Barium	38.9	5.3 Dilution Fa	mg/kg	SW846 6010B Initial Wgt/Vol:	10/11-10/12/00 Final Wgt/Vol.	
Cadmium	ND	0.53 Dilution Fac	mg/kg ctor: 1	SW846 6010B Initial Wgt/Vol:	10/11-10/12/00 Final Wgt/Vol.	
Chromium	31.6	1.1 Dilution Fac	mg/kg	SW846 6010B Initial Wgt/Vol:	10/11-10/12/00 Final Wgt/Vol.	
Silver	ND	1.1 Dilution Fac	mg/kg ctor: 1	SW846 6010B Initial Wgt/Vol:	10/11-10/12/00 Final Wgt/Vol.	
NOTE(S):						

Client Sample ID: SOIL COMP

General Chemistry

Lot-Sample #...: B0I300119-007

Work Order #...: DLCN6
Date Received..: 09/30/00

Matrix....: SOLID

Date Sampled...: 09/28/00

% Moisture....: 4.8

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #		
pH (solid)	8.7	0.10	No Units	SW846 9045A	09/30/00	0276317		
		Dilution Fac	tor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0		
Chloride	ND	5.3	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276192		
		Dilution Fac	tor: 1	Initial Wgt/Vol: 10 g	Final Wgt/Vol: 100 mL			
Fluoride	ND	1.1	mg/kg	MCAWW 340.2	10/06/00	0283107		
		Dilution Fac	tor: 1	Initial Wgt/Vol: 20 g	Final Wgt/Vol.	.: 100 mL		
Nitrate as N	ND	2.6	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276193		
		Dilution Fac		Initial Wgt/Vol: 10 g	Final Wgt/Vol.	.: 100 mL		
Percent Solids	95.2	0.10	¥	MCAWW 160.3 MOD	10/04-10/05/00	0279160		
		Dilution Fac	tor: 1	Initial Wgt/Vol:	Final Wgt/Vol.	.: 0		
Sulfate	ND	5.3	mq/kq	MCAWW 300.0A	09/30-10/01/00	0276194		
		Dilution Fac	5	Initial Wgt/Vol: 10 g	Final Wgt/Vol.			

NOTE(S):

RL Reporting Limit