

**GW - 20**

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**REPORTS**

**YEAR(S):**

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**2000**

November 27, 2000

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

**RE:** Installation & Sampling of MW-2 and MW-3  
Shallow Soil Investigation @ the Bermed Area  
Maljamar Gas Plant  
1001 Conoco Road  
Maljamar, New Mexico  
Maxim Project No. 2007210

RECEIVED  
DEC 01 2000  
Environmental Bureau  
Oil Conservation Division

Dear Mr. Price:

On behalf of Conoco Inc. (Conoco), Maxim Technologies, Inc. (Maxim) prepared this letter report for your review and approval detailing the subsurface investigation performed on September 28 and 29, 2000 at the Maljamar Gas Plant. This most recent subsurface investigation consisted of two major objectives:

1. Conduct a limited shallow soil investigation in Area 1 (the Bermed Area) per the 9/19/00 Maxim work plan submitted and approved by the New Mexico Oil Conservation Division (OCD) on 9/19/00; and
2. Install two monitor wells (MW-2 and MW-3) and sample the new wells plus existing monitor well MW-1 per the 8/8/00 Maxim work plan submitted and approved by the OCD on 9/19/00.

## BACKGROUND

On February 13, 2000, approximately 15 barrels (bbl) of condensate were released in a bermed skimmer basin site on the south side of the Maljamar Gas Plant hereinafter designated Area 1. After notification to the OCD, Conoco removed and disposed of approximately 20 cubic yards of soil from within Area 1 as part of the spill mitigation effort. Subsequent to the excavation, Maxim was retained to perform a subsurface investigation to assess the vertical and horizontal impact associated with the 15 bbl release. The subsurface investigation was conducted in Area 1, and an adjoining bermed area formerly containing condensate tanks, hereinafter designated Area 2. The subsurface investigations occurred on April 27 - 28 and June 21 – 22, and included the installation of 12 soil borings and one groundwater monitor well (MW-1). The results were submitted to the OCD on August 8, 2000 for review. Based on the results of the subsurface investigations, Conoco determined that:

1. During the installation of the soil borings and monitor well, evidence of historical impacts to both soil and groundwater exists at Area 1 and Area 2;
2. The majority of the soil impacted by the February release was likely mitigated through excavation efforts.



The recommended course of action agreed upon by Conoco and the OCD was as follows:

### **Groundwater Impacts**

Regarding the historical release, Conoco determined that due to the nature of the data developed during the Area 1 and 2 soil boring and monitor well installation and sampling, additional groundwater data were required. Maxim prepared a plan proposing two additional monitor wells in the immediate vicinity of Areas 1 and 2. The OCD approved the plan on 9/19/00.

### **Additional Soil Removal**

A review of the analyses of the shallow samples (0-5 feet below ground surface (bgs)) from soil borings B-3 and B-4 (Figure 1) indicated that some near-surface contamination (possibly related to the 15 bbl release) still existed inside the berm at Area 1. A plan was developed to perform a limited soil removal immediately surrounding borings B-3 and B-4 near the south berm of Area 1. This plan was designed to concentrate on removal and stockpiling of shallow soil with a photo-ionization detector (PID) reading of 50 ppm or higher. The maximum anticipated depth of excavation was to be four feet bgs (per the plan submitted and approved by the OCD 9/19/00).

The results of these investigations are presented below.

## **SUBSURFACE INVESTIGATIONS**

### **Monitor Well Installation**

On September 28 2000, Maxim supervised the drilling of two additional monitor wells (MW-2 and MW-3) in the immediate vicinity of Areas 1 and 2 (Figure 1). Harrison and Cooper, Inc. drilling company drilled the wells using an Ingersoll-Rand TH-60 rotary drill rig. Samples were collected every five feet and screened in the field for volatile organic compounds using a PID. The PID readings and lithologic descriptions are presented in the boring logs contained in Attachment A.

Monitor well MW-2 was drilled to a total depth of 98 feet bgs. Light colored sands and sandy silts were encountered to a depth of 60 feet below ground surface (bgs). From 60 feet to 90 feet bgs, green to dark green silty shales were encountered. Elevated PID readings, as well as "organic" odors were noted at the base of this unit. At approximately 90 feet bgs, a saturated sand horizon was penetrated. The drilling continued to 98 feet bgs at which point, a two-inch PVC monitor well was set and completed with 30 feet of screen from 68 feet to 98 feet bgs. The initial water level recorded was 82 feet bgs, indicative of an upward hydraulic gradient and confined conditions.

Monitor well MW-3 was drilled to a total depth of 98 feet bgs. The stratigraphic section encountered in MW-3 was very similar to that of MW-2 (Attachment A). The upper 60 feet encountered in the wells is thought to be representative of the Quaternary age alluvium/bolson fill, whereas the lower 38 feet probably represent the Triassic age Chinle Shale. The Tertiary age Ogallala Formation outcrops in a prominent escarpment (Mescalero Ridge) approximately four miles to the northeast of the Maljamar Gas Plant. At this point, the Ogallala unconformably overlies the Chinle. A two-inch PVC monitor well was completed in MW-3 with a screened interval ranging from 68 feet to 98 feet bgs. The initial water level recorded was 81 feet bgs.

Both wells were completed with a below-grade configuration, developed until conductivity and pH readings equilibrated, and sampled with clean, disposable bailers.

Monitor wells MW-1, MW-2, and MW-3 were sounded for groundwater levels on September 29 2000, after the wells had time to equilibrate to static conditions following development and sampling. The following table presents the measured water levels:

MONITOR WELL NUMBER	WATER LEVEL (FEET B.G.S.)
MW-1	77.96 feet
MW-2	76.32 feet
MW-3	76.94 feet

Figure 2 represents the potentiometric surface map based on the above-measured groundwater levels. The groundwater gradient is to the southwest, as is the regional dip of the Triassic deposits. The confined conditions indicated by the upward hydraulic gradient within the monitor wells is thought to be a result of a head differential between the Chinle sand unit and the saturated Ogallala overlying the Chinle four miles to the northeast. This relationship implies that the Ogallala is discharging downward into the underlying Chinle. Numerous groundwater supply wells are located within the Ogallala aquifer within the immediate vicinity of Maljamar, New Mexico. The Conoco gas plant derives drinking water supplies from Ogallala wells located north of the plant on the Mescalero Ridge.

The monitor wells were sampled for volatile organic compounds (USEPA Method 8260), semi-volatile compounds (USEPA Method 8270), RCRA metals (USEPA Methods 6010B/7470A), and major ions (conductance, pH, total dissolved solids, alkalinity [carbonate, bicarbonate and total], fluoride, chloride, sulfate, and nitrate). One duplicate sample, MW-4, was collected from monitor well MW-1 and submitted to the laboratory for the above listed analyses.

The following table presents a summary of the constituents of concern (COC) from the monitor well sampling event, as well as the New Mexico Water Quality Control Commission (NMWQCC) standards for comparative purposes with the listed COCs. The complete laboratory report is contained in Attachment B.

Constituent	MW-1	MW-4*	MW-2	MW-3	NMWQCC Standards
Arsenic	0.065 mg/L	0.13 mg/L	0.11 mg/L	0.16 mg/L	0.1 mg/L
Lead	0.0075 mg/L	0.067 mg/L	0.092 mg/L	0.088 mg/L	0.05 mg/L
Barium	0.31 mg/L	0.58 mg/L	3.1 mg/L	4.3 mg/L	1.0 mg/L
Chromium	0.013 mg/L	0.033 mg/L	0.12 mg/L	0.16 mg/L	0.05 mg/L
Benzene	700 ug/L	880 ug/L	15000 ug/L	30000 ug/L	10 ug/L
Naphthalene	2.2 ug/L	1.4 ug/L	30 ug/L	34 ug/L	30 ug/L**
Toluene	ND	ND	4700 ug/L	5000 ug/L	750 ug/L
Xylenes	6.7 ug/L	8.6 ug/L	ND	ND	620 ug/L
2-Methylnaphthalene	ND	ND	48 ug/L	53 ug/L	NA
Phenol	ND	ND	25 ug/L	40 ug/L	NA
TDS	740 mg/L	684 mg/L	1200 mg/L	1520 mg/L	1000 mg/L
Sulfate	56.7 mg/L	56.3 mg/L	35.7 mg/L	67.8 mg/L	600 mg/L
Chloride	176 mg/L	175 mg/L	296 mg/L	554 mg/L	250 mg/L

\* MW-4 is a duplicate of MW-1

\*\*PAHs: total naphthalene

Plus monomethyl-Naphthalenes

## Soil Removal at Area 1

On September 29 2000, Maxim arrived on site to perform a soil removal from Area 1 to address any residual impacts still present from the February 13, 2000 15 bbl condensate release. The excavation efforts were guided by analytical results from soil borings installed on 4/27/00. Based on the aforementioned results, excavation efforts concentrated on the shallow soils in the vicinity of borings B-3 and B-4 (Figure 3). The soil removal followed the plan presented to and approved by the OCD on September 19, 2000.

- Field Screening

Field headspace analyses were conducted on-site by placing soil sampled out of the excavations in resealable plastic bags and allowing the samples to volatilize for approximately 15 minutes per OCD guidance. A PID was then used to test the headspace area in the bag above the soil samples for petroleum hydrocarbons and other low molecular weight organic compounds in parts per million (ppm) units. Based on the approved OCD plan, soils exhibiting headspace readings of 50 ppm or less would be left in place. PID readings for the excavations near B-3 and B-4 ranged as follows.

<b>SAMPLE LOCATIONS AND FIELD PID READINGS</b>			
SAMPLE NO.	EXCAVATED DEPTH (inches)	VOC (ppm)	LABORATORY ANALYSIS REQUESTED
B-3-1	18	4.7	X
B-3-2	18	4.3	X
B-3-3	18	625.3	
B-3-4	36	440.5	
B-3-5	48	475.0	X
B-4-1	18	719	
B-4-2	24	900.5	
B-4-3	48	1190.4	
B-4-5	6	466.0	
B-4-6	18	2663.0	

- Soil Boring B-3

Work commenced on removal of soil immediately surrounding soil-boring B-3 (Figure 4) with a John Deere 790 D-LC track hoe operated by Ferguson Construction. At B-3, the containment berm was left in place. Soil removal in the area was severely constrained due to the presence of pipelines and conduits in the area, both on the surface and buried. An area approximately eight feet wide and about ten feet long was excavated to 18 to 24 inches deep. Excavated soil was placed on a liner that was later bermed and covered to limit potential for migration of contaminants in runoff to the environment. Three samples were gathered from the floor of the excavation and bagged for PID field analysis (samples B-3-1, B-3-2, and B-3-3) (Figure 4). Samples B-3-1 and B-3-2 were collected from the edges of the excavation at about 18 inches bgs, and both read less than 50 ppm on the PID. Sample B-3-3, obtained from the center of the excavation at about 18 inches in depth, returned a reading of 625.3 ppm on the PID. This area was excavated to 36 inches in depth, and another sample collected from the bottom of the excavation was analyzed on the PID. This sample returned a PID reading of 440.5 ppm. The center of the excavation was then deepened to approximately 48 inches, (the prescribed maximum

depth for phase 3 soil removal). A sample from the floor of the excavation returned a PID reading of 475.0 ppm.

Excavations in the area of boring B-3 encountered tan sand material with some intermixed gravel near the surface. Some moisture was noted in the surface material. The center of the excavation yielded moist sand discolored by product; varying from dark brown to black. This material also had a strong hydrocarbon odor.

- Soil Boring B-4

Excavations near soil boring B-4 (Figure 5) were performed with a John Deere 310 E wheeled backhoe operated by Ferguson Construction. Due to access and workspace constraints imposed by tanks and underground lines in the area, the containment berm had to be removed. A four-foot by two-foot trench was dug near the southeast corner of the active skimmer tank to an ultimate depth of 48 inches. Soil samples were collected at excavation depths of 18 inches, 24 inches, and 48 inches and field screened with a PID, (samples B-4-1, B-4-2, and B-4-3, respectively). PID readings at all depths were in excess of 50 ppm. A second location approximately eight to ten feet to the west was excavated to a depth of 18 inches bgs under the berm. A sample collected from the floor of this excavation read 2663.0 ppm. Another area approximately 8 feet southeast of the containment berm was excavated to a depth of six inches bgs. A sample from this excavation returned a PID reading of 466.0 ppm VOC.

The excavations surrounding the boring location B-4 encountered tan sand and silty sand along with discolored sand material colored dark brown to black. At depths exceeding 6 inches, the sand was moist and somewhat oily in nature and had a strong hydrocarbon odor.

Conoco personnel reduced the wall angles on the excavations to improve worker safety in the area. A load of caliche was ordered to rebuild the containment berm around the active skimmer tank.

- Soil Sampling and Analysis

Three soil samples were collected for laboratory analysis from excavation B-3. The samples were chosen from locations that will allow confirmation of field PID readings. No samples were collected from the B-4 excavations for laboratory analysis since the material removed from that area was perceptibly contaminated with hydrocarbon product.

Sample Number	Organics			Metals							
	DRO	xlenes	ethylbenzene	As	Pb	Cr	Ba	Fl	Cl	SO4	PH
B-3-1	1600	ND	ND	4.6	5.2	ND	251	11.7	21	41.3	8.7
B-3-2	2300	ND	ND	2.1	3.7	ND	140	4.8	28	65.4	8.3
B-3-5	1400	2700*	1800*	1.1	2.2	2.6	28	ND	42	7.8	8.6

DRO - Diesel Range Organics

\*Values in ug/kg. All other values in mg/kg.

## RESULTS OF INVESTIGATIONS

### Monitor Well Installation

Results of the installation of two additional monitor wells and sampling of MW-1, MW-2 and MW-3 indicate:

- A confined, saturated sand occurs in the upper section of the Chinle Shale underlying the Maljamar Gas Plant. The upward hydraulic gradient is most likely created by groundwater discharge into the Chinle from the upgradient Ogallala aquifer.
- The groundwater gradient of the Chinle sand is to the southwest, or away from the Ogallala escarpment located approximately four miles northeast of the Maljamar Gas Plant.
- Organic compounds have impacted the Chinle sand unit underlying Areas 1 and 2. The most likely point source is the historical soil impacts underlying Areas 1 and 2. Additional investigations are required to substantiate this assumption.
- A background monitor well is required to ascertain if the metal concentrations observed in MW-1, MW-2 and MW-3 are the result of past plant operations or indicative of ambient background conditions.
- An additional groundwater investigation is required to identify the horizontal extent of the organic compounds within the Chinle sand unit, and confirm the groundwater flow direction on a regional basis.
- The background monitor well will be drilled to a depth sufficient to determine the thickness of the Chinle sand unit.

### Soil Removal

Results of the limited soil excavation in Area 1, designed to mitigate residual impacts from the February 13, 2000 15 bbl condensate release, indicated that historical impacts were present from the surface to the planned investigatory depth of four feet bgs. Therefore, residuals, if any, from the 15 bbl release are overprinted by historical impacts, and any further attempts to segregate these impacts would not produce conclusive data. Based on data presented here and in previous reports to the OCD, Conoco believes that efforts directed toward the mitigation of the 15 bbl release have been successful, and closure of this issue should be granted. All future efforts will be directed toward the mitigation of the historical impacts.

## RECOMMENDATIONS

### Groundwater Investigation

In order to further define the extent and implications of the groundwater impacts, additional monitoring wells are herein proposed. The basis for the following proposed locations is to define background conditions as well as to determine the extent of groundwater impacts both onsite and offsite. Figure 6 presents the proposed locations.

- MW-4 – Proposed monitor well MW-4 is located on the northeast corner of the gas plant property, and will be installed to determine background groundwater quality. If it is determined that MW-4 is not impacted, it will be deepened to determine the thickness of the Chinle sand under investigation at that location.

- MW-5 – Proposed monitor well MW-5 is located in the southeast corner of the gas plant property. The purpose of this well is to establish groundwater conditions in this portion of the plant property. It will also identify any potential impacts derived from offsite oil and gas production operations that might have migrated onto the gas plant property.
  - MW-6 – Proposed monitor well MW-6 is located in the center of the gas plant property, downgradient of the gas plant and upgradient of Areas 1 and 2. The purpose of the well is to identify any potential groundwater impacts derived from the gas plant operation. If this well is determined to be free from impacts following groundwater sampling, it will be treated as a temporary monitor well, and plugged and abandoned upon review of the analytical results. If the well is impacted, it will be completed as a permanent well.
  - MW-7 – Proposed monitor well MW-7 is located along the west-central property line of the gas plant. The purpose of this well is to identify any groundwater impacts derived from the gas plant operation. If this well is determined to be free from impacts following groundwater sampling, it will be treated as a temporary monitor well, and plugged and abandoned upon review of the analytical results. If the well is impacted, it will be completed as a permanent well.
  - MW-8 – Proposed monitor well MW-8 is located at the southwest corner of the gas plant property. The purpose of this well is to provide groundwater quality data at the furthest downgradient point onsite. If it is determined that groundwater is impacted in this well, offsite investigations will be required.
  - Temporary Monitor Wells – Results from monitor well MW-8 will trigger whether or not Conoco will have to investigate offsite impacts. Initially, we propose to utilize temporary monitor well installations to delineate any offsite impacts. Following delineation efforts of offsite impacts, if present, one offsite monitor well will be installed beyond the leading edge of the impact.
- Monitor Well Installation and Sampling

All groundwater monitor wells will be installed, developed and sampled following the methodologies presented in the August 13, 1993 OCD publication, *Guidelines for Remediation of Leaks, Spills and Releases*. Per OCD guidance all samples will be collected and analyzed for “the full suite” of parameters as defined in the above referenced OCD guidance. These parameters include: volatile organic compounds (USEPA Method 8260), semi-volatile organic compounds (USEPA Method 8270), major cations/anions, and RCRA metals (USEPA Method 6010).

Prior to purging and sampling, monitor wells MW-1, MW-2 and MW-3 will be assessed for the presence of free product by slowly lowering a disposable bailer into the top of the water column, and visually inspecting the bailer contents for free product or a “sheen” following removal from the well. If free product or sheen is present, samples will not be collected from the well.

• Temporary Monitor Well Installation and Sampling

Temporary monitor wells will be constructed once saturation is encountered in an open boring. It is anticipated that a nominal twenty feet of screen will be installed with riser pipe to the surface. An annular sand pack will be placed opposite the screened zone. The well will be developed by bailing and surging until the field conductivity values stabilize. At that point, a groundwater sample will be collected for analysis. Following sample collection, the casing and screen will be removed from the boring, and the boring backfilled with hydrated bentonite pellets.

The groundwater samples collected from the temporary monitor wells will be analyzed for BTEX on a 24-hour turn-around. This process will expedite the offsite delineation process, and facilitate

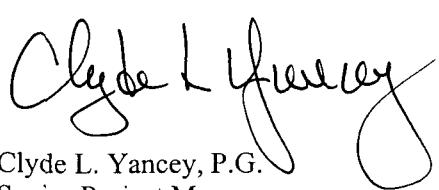
the placement of permanent onsite and offsite monitor wells. The permanent offsite monitor well will be completed and sampled as described in the preceding section.

### **Soil Removal in Area 1**

As previously stated, Conoco requests that the OCD grant closure on the February 2000 15-bbl condensate release. Conoco's rapid excavation of 20 cubic yards of impacted soil from Area 1 mitigated the release. Subsequent soil borings and test pit excavations have shown that any residual impacts from the 15 bbl release are overprinted by the historical impacts. Conoco believes that it would be beneficial from an environmental protection standpoint to expend resources on mitigating the historical impacts rather than attempting to segregate and mitigate residuals, if any, representative of the 15-bbl release.

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

## **FIGURES**

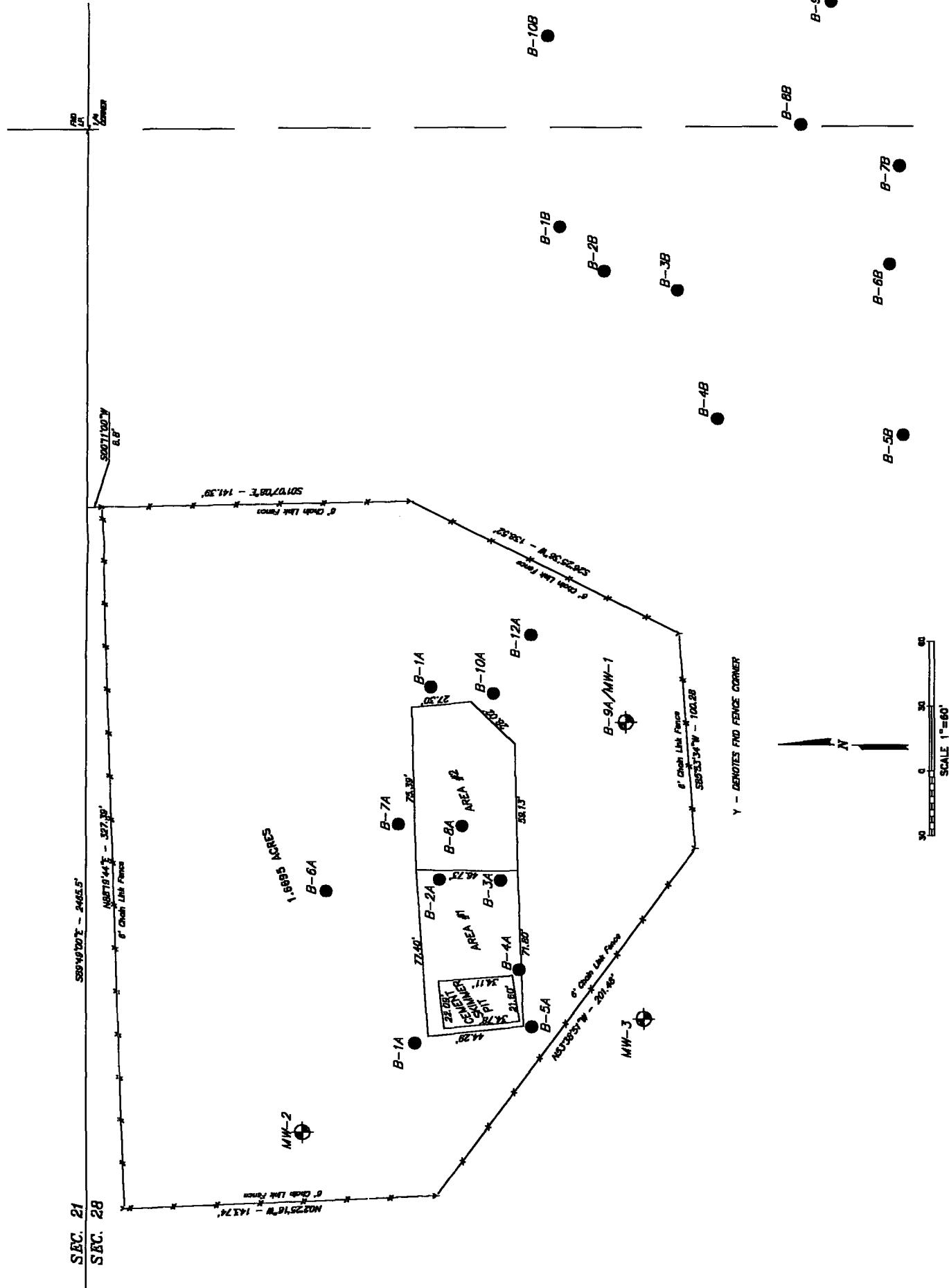


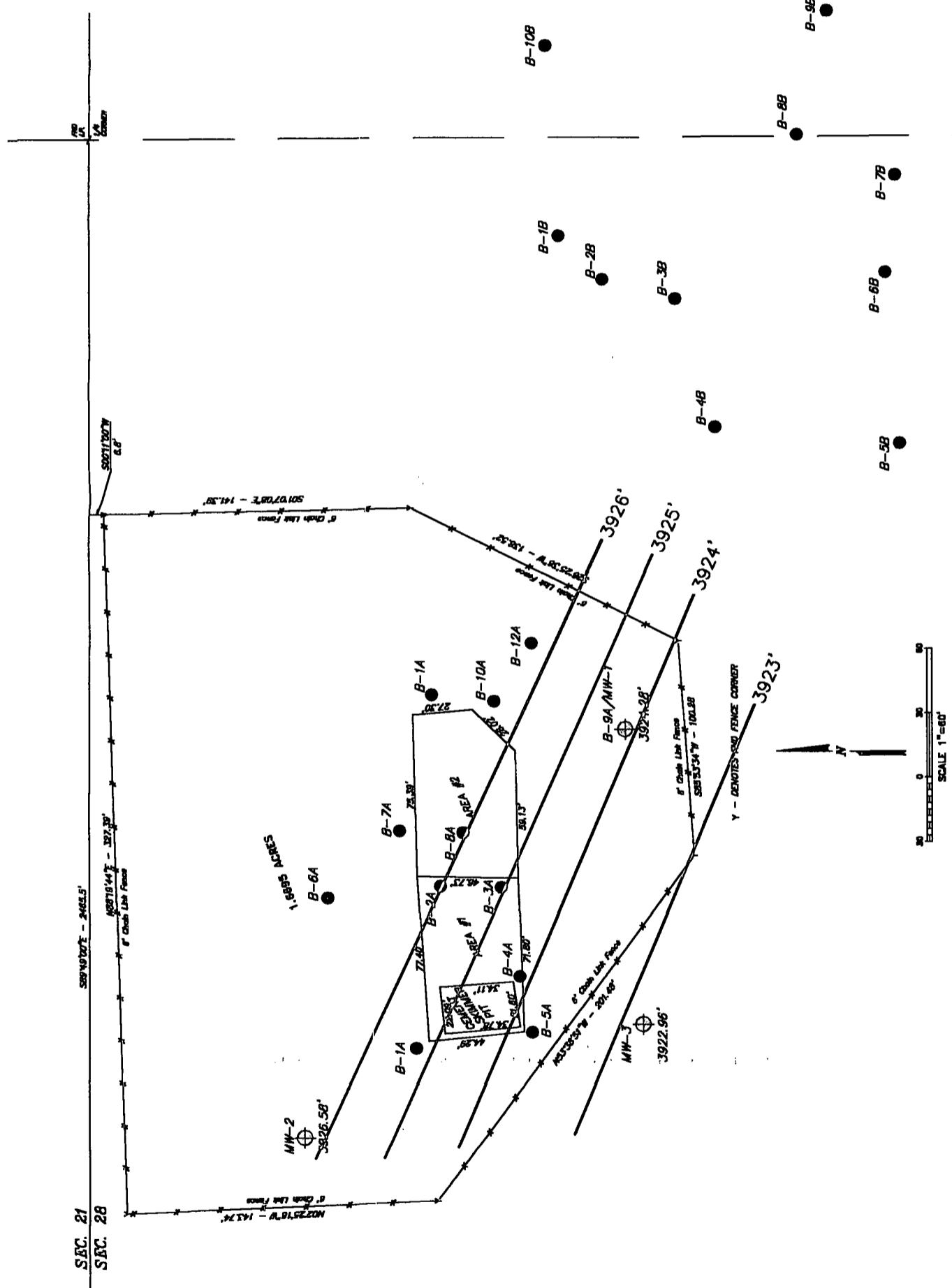
FIGURE 1—SITE MAP

**CONOCO GAS PLANT  
MALJAMAR, NEW MEXICO**

DRAWING BY: JD DATE: 11/23/00 SCALE: 1" = 60'  
 CHECKED BY: CY DATE: 11/23/00

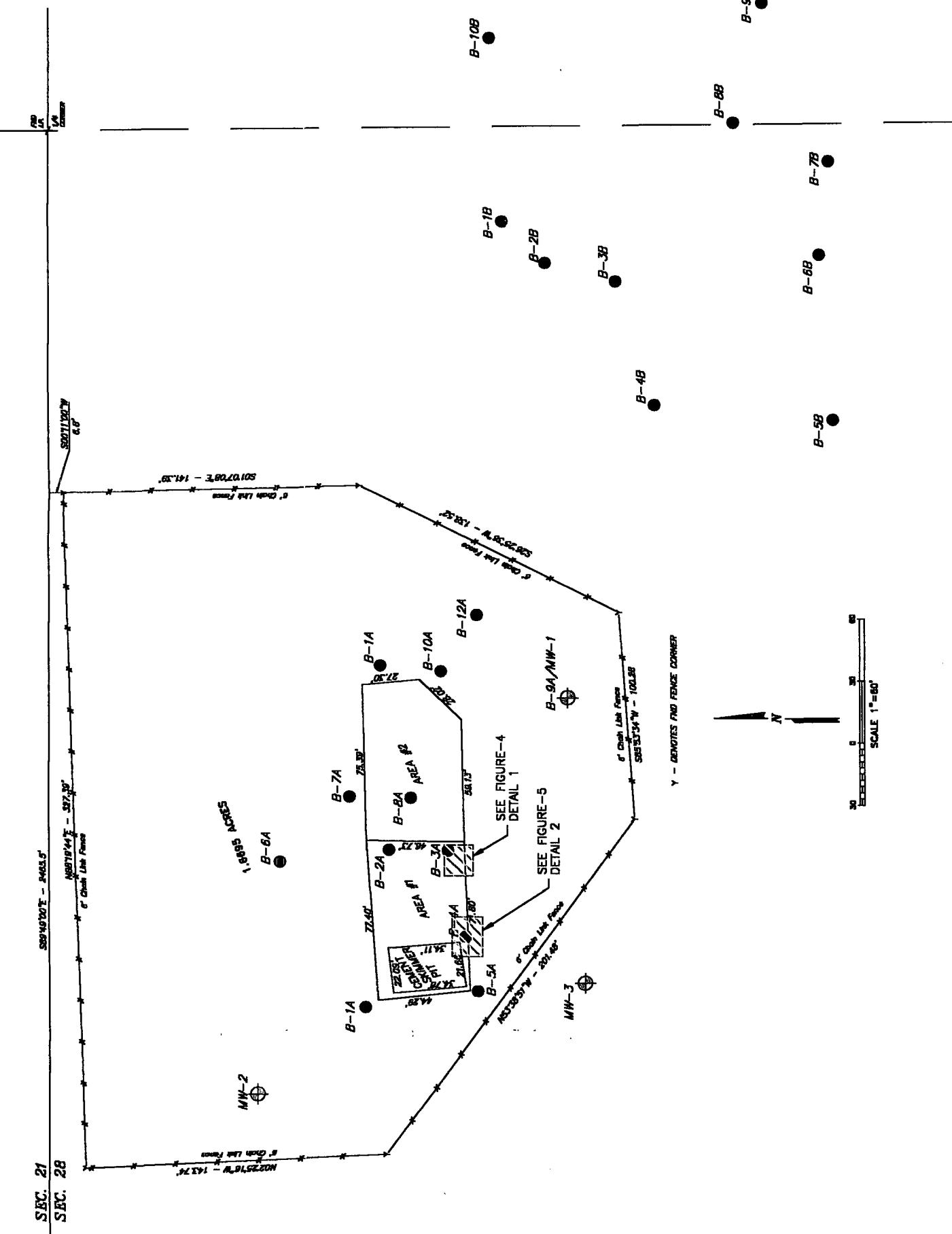
**MAXIM**  
 TECHNOLOGIES INC.

PROJECT NO. 2007210	FILE NAME: 2007210.DWG
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<b>FIGURE 2-POTENTIOMETRIC SURFACE MAP</b>					
<b>CONOCO GAS PLANT MALJAMAR, NEW MEXICO</b>					
DRAWING BY: JD	DATE: 11/23/00	SCALE:	1" = 60'		
CHECKED BY: CY	DATE: 11/23/00				
PROJECT NO. 2007210		 MAXIM TECHNOLOGIES INC.			
FILE NAME: 2007210.CDWG					

DRAWING BY: JD	DATE: 11/23/00	SCALE: 1 - 60'
CHECKED BY: CY	DATE: 11/23/00	
PROJECT NO.		
FILE NAME:	2007210	2007210C.DWG



**FIGURE 3-AREAS OF EXCAVATION**

<b>CONOCO GAS PLANT MALJAMAR, NEW MEXICO</b>		<b>DRAWING BY: JD</b>	<b>DATE: 11/23/00</b>	<b>SCALE: 1" =</b>
		<b>CHECKED BY: CY</b>	<b>DATE: 11/23/00</b>	
<b>PROJECT NO.</b>	2007210	<b>FILE NAME:</b>	2007210C.DWG	<b>MAXIM TECHNOLOGIES INC.</b>

FIGURE 3-AREAS OF EXCAVATION

**CONOCO GAS PLANT  
MALJAMAR, NEW MEXICO**

DRAWING BY: JD DATE: 11/23/00 SCALE: 1" = 6'  
 CHECKED BY: CY DATE: 11/23/00  
 PROJECT NO. 2007210 FILE NAME: 2007210.CDG  
**MAXIM**  
 TECHNOLOGIES INC.

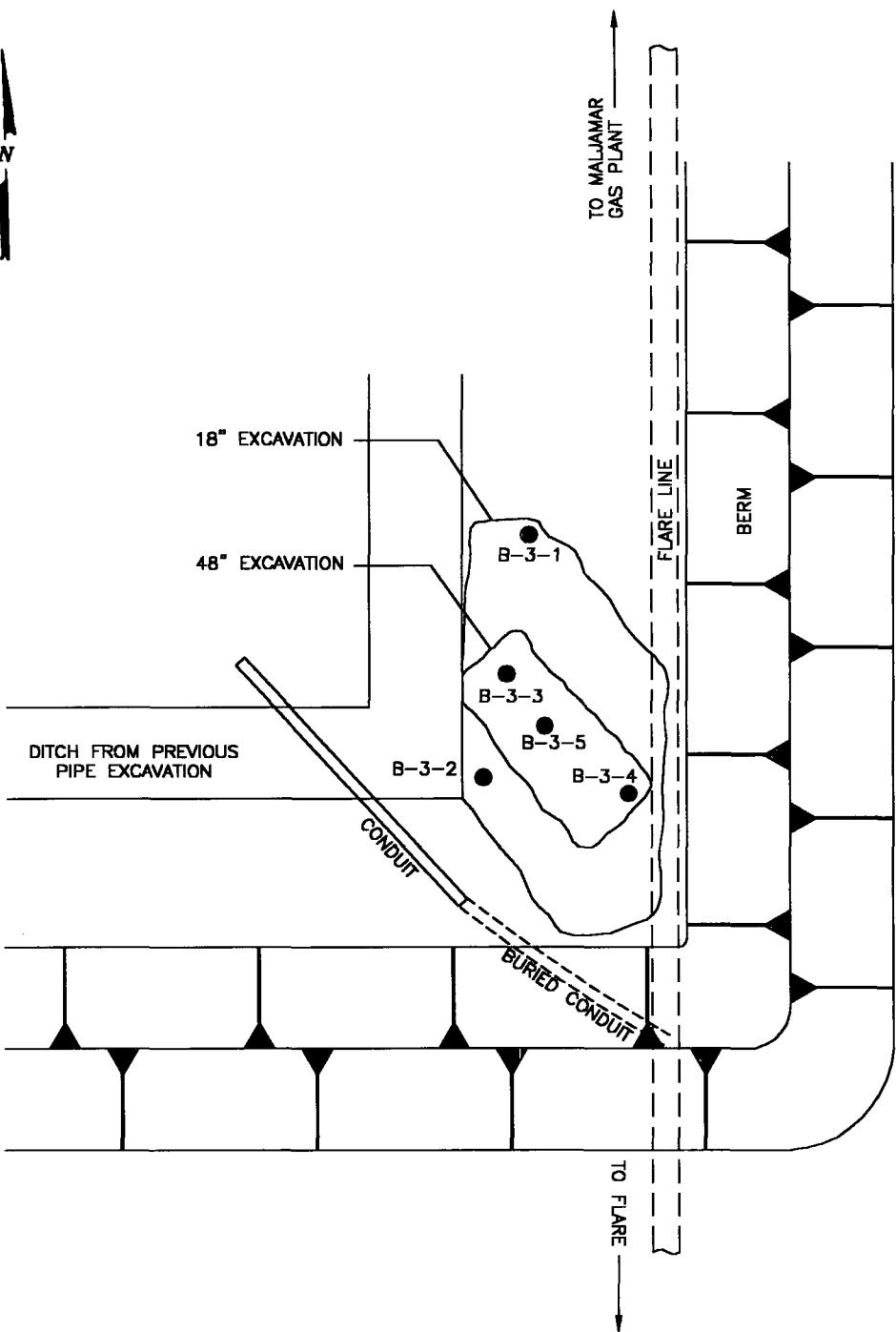


FIGURE 4—AREAS OF EXCAVATION  
DETAIL 1

CONOCO GAS PLANT  
MALJAMAR, NEW MEXICO

PROJECT NO. 2007210

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FILE NAME: 2007210A.DWG

CHECKED BY: CY DATE: 11/15/00

**MAXIM**  
TECHNOLOGIES INC

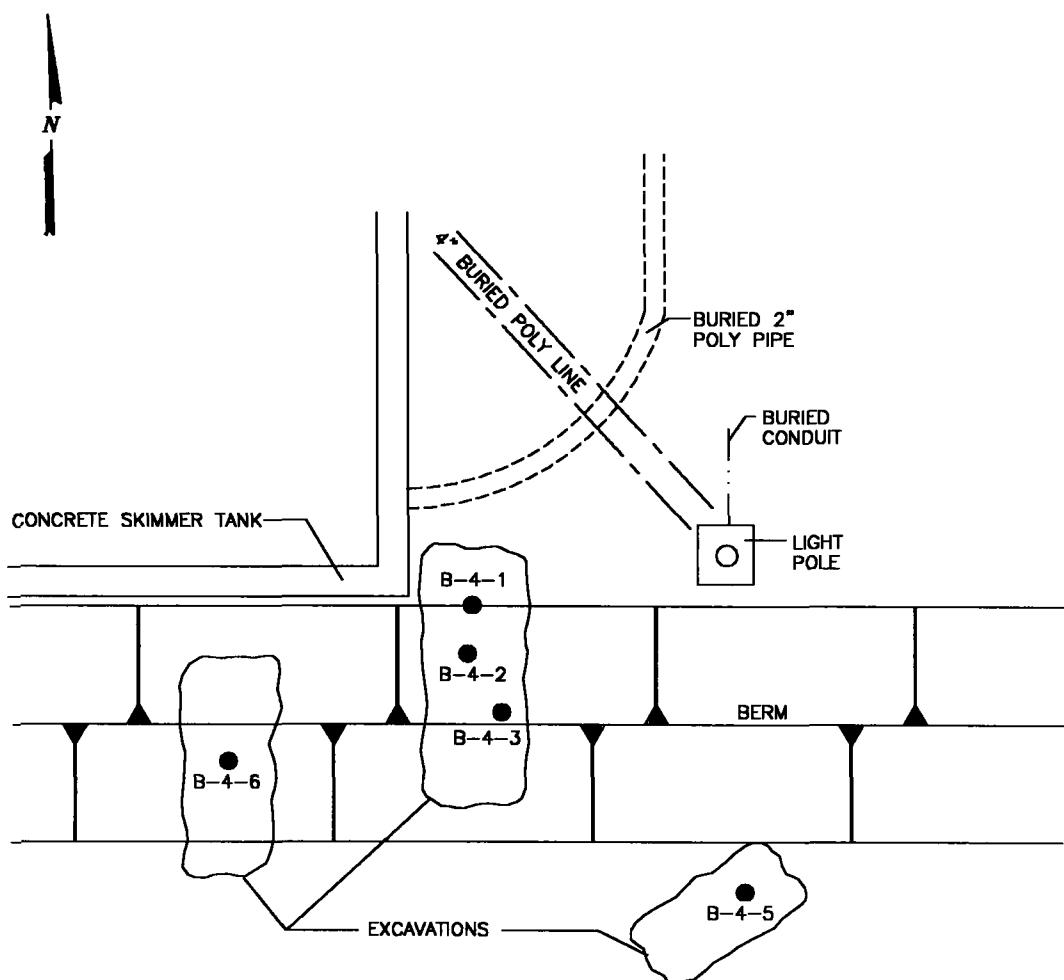


FIGURE 5—AREAS OF EXCAVATION  
DETAIL 2

CONOCO GAS PLANT  
MALJAMAR, NEW MEXICO

PROJECT NO. 2007210

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DATE: 11/15/00

SCALE:

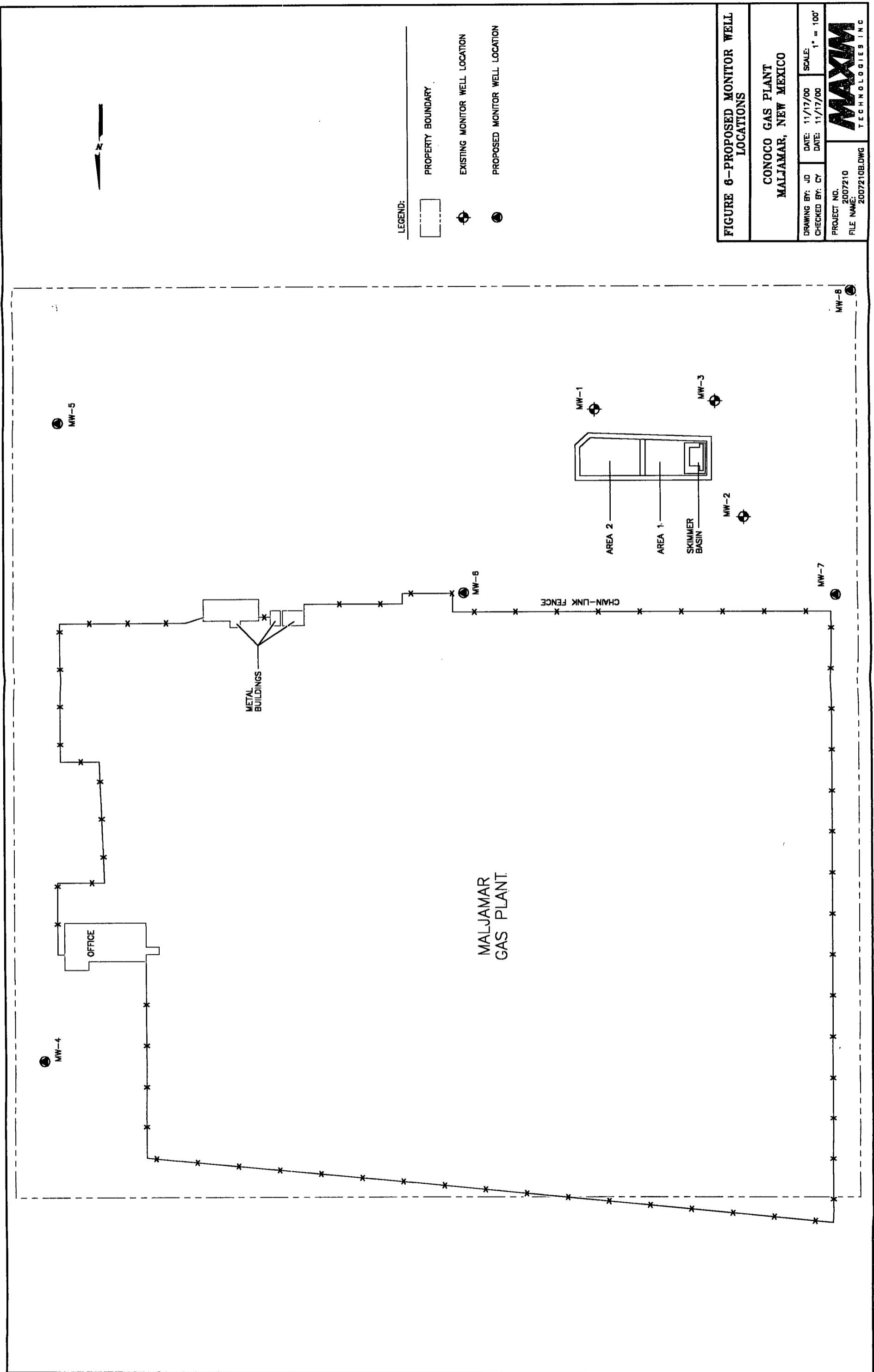
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CHECKED BY: CY

DATE: 11/15/00

NOT TO SCALE

**MAXIM**  
TECHNOLOGIES INC



## **ATTACHMENT A**

## **SOIL BORING/MONITOR WELL LOG**

BORING/WELL #: B-9/MW-1

PROJECT NO.: 2005069

LOCATION: 1001 CONOCO ROAD, MALJAMAR, NEW MEXICO

TOTAL DEPTH: 97.0'

**SURFACE ELEV:**

SCREEN: DIA: 2" LENGTH: 2.0' SIZE: 0.010"

CASING: DIA: 2" LENGTH: 72' TYPE: PVC

DRILLING METHOD(S): Air Rotary

**CLIENT: CONOCO, INC.**

## PROJECT: MALJAMAR GAS PLANT

WATER LEVEL: INITIAL: 93.0' 24 HOURS: 77.0'

**BORE HOLE DIAMETER: 6.25"**

DRILLING COMPANY: HARRISON & COOPER

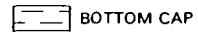
DATE DRILLED: 6/21/00

**OVERSIGHT: C. MADDOX**

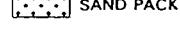
RIVEN SPLIT SPOON  
MESSED SHELBY TUBE  
101-2225

HSA - HOLLOW STEM AUGER  
CFA - CONTINUOUS FLIGHT AUGERS  
MD - MUD DRILLING

WATER LEVEL  
AT COMPLETION  
AFTER HOURS



ANSWER



**SAND PACK**



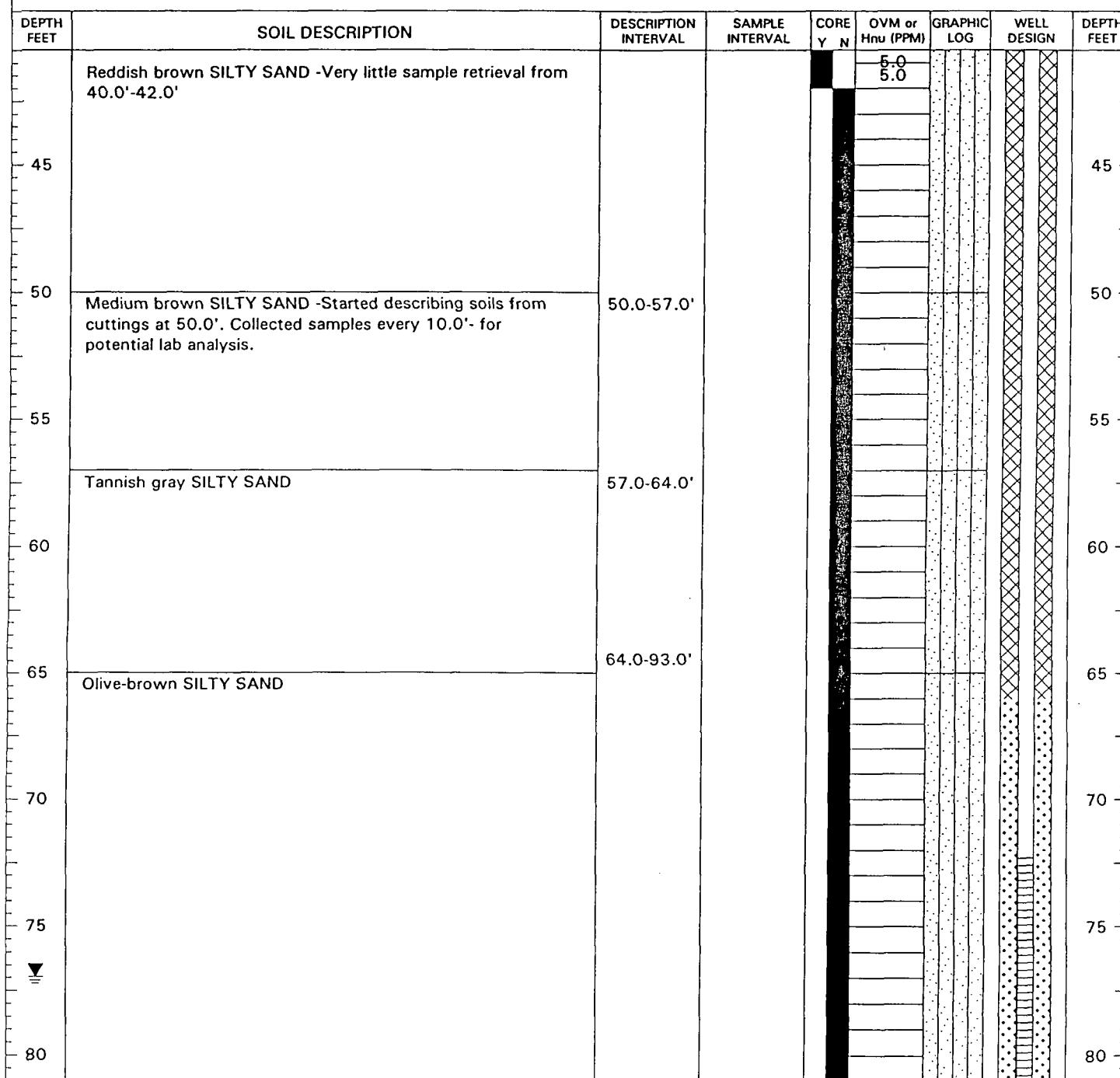
11/11/2012



# SOIL BORING/MONITOR WELL LOG

BORING/WELL #: B-9/MW-1  
 PROJECT NO.: 2005069  
 LOCATION: 1001 CONOCO ROAD, MALJAMAR, NEW MEXICO  
 TOTAL DEPTH: 97.0'  
 SURFACE ELEV:  
 SCREEN: DIA: 2" LENGTH: 2.0' SIZE: 0.010"  
 CASING: DIA: 2" LENGTH: 72' TYPE: PVC  
 DRILLING METHOD(S): Air Rotary

CLIENT: CONOCO, INC.  
 PROJECT: MALJAMAR GAS PLANT  
 WATER LEVEL: INITIAL: 93.0' 24 HOURS: 77.0'  
 BORE HOLE DIAMETER: 6.25"  
 DRILLING COMPANY: HARRISON & COOPER  
 DATE DRILLED: 6/21/00  
 DRILLER: K. COOPER  
 OVERSIGHT: C. MADDOX



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

WATER LEVEL  
 AT COMPLETION  
 AFTER HOURS  
 SOIL SAMPLE SUBMITTED TO LAB

BOTTOM CAP  
 SAND PACK  
 BENTONITE SEAL

FACTORY - SLOTTED WELL SCREEN  
 WELL CASING  
 BENTONITE/CEMENT GROUT SEAL

# SOIL BORING/MONITOR WELL LOG

BORING/WELL #: B-9/MW-1  
 PROJECT NO.: 2005069  
 LOCATION: 1001 CONOCO ROAD, MALJAMAR, NEW MEXICO  
 TOTAL DEPTH: 97.0'  
 SURFACE ELEV:  
 SCREEN: DIA: 2" LENGTH: 2.0' SIZE: 0.010"  
 CASING: DIA: 2" LENGTH: 72' TYPE: PVC  
 DRILLING METHOD(S): Air Rotary

CLIENT: CONOCO, INC.  
 PROJECT: MALJAMAR GAS PLANT  
 WATER LEVEL: INITIAL: 93.0' 24 HOURS: 77.0'  
 BORE HOLE DIAMETER: 6.25"  
 DRILLING COMPANY: HARRISON & COOPER  
 DATE DRILLED: 6/21/00  
 DRILLER: K. COOPER  
 OVERSIGHT: C. MADDOX

DEPTH FEET	SOIL DESCRIPTION	DESCRIPTION INTERVAL	SAMPLE INTERVAL	CORE Y N	OVM or Hnu (PPM)	GRAPHIC LOG	WELL DESIGN	DEPTH FEET
	Olive-brown SILTY SAND							
85	-Intermixed with small sandstone and clayey, shaley type material							85
90								90
▽ 95	Medium brown SILTY SAND intermixed with gravel -Groundwater at 93.0'	93.0-97.0'						95
100	End of boring at 97.0'							100
105								105
110								110
115								115
120								120

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

WATER LEVEL  
 AT COMPLETION  
 AFTER HOURS  
 SOIL SAMPLE SUBMITTED TO LAB

BOTTOM CAP  
 SAND PACK  
 BENTONITE SEAL

FACTORY - SLOTTED WELL SCREEN  
 WELL CASING  
 BENTONITE/CEMENT GROUT SEAL

# SOIL BORING/MONITOR WELL LOG

BORING/WELL #: MW-2  
 PROJECT NO.: 2007210  
 LOCATION: MALJAMAR, NEW MEXICO  
 TOTAL DEPTH: 98.0'  
 SURFACE ELEV:  
 SCREEN: DIA: 2" LENGTH: 30' SIZE: 0.010"  
 CASING: DIA: 2" LENGTH: 68' TYPE: PVC  
 DRILLING METHOD(S): Air Rotary

CLIENT: CONOCO, INC.  
 PROJECT: MALJAMAR GAS PLANT  
 WATER LEVEL: INITIAL: 82.15' 24 HOURS: 76.32'  
 BORE HOLE DIAMETER:  
 DRILLING COMPANY: HARRISON & COOPER  
 DATE DRILLED: 9/28/00  
 DRILLER: C. HARRISON  
 OVERSIGHT: C. YANCEY

DEPTH FEET	SOIL DESCRIPTION	DESCRIPTION INTERVAL	SAMPLE INTERVAL	CORE Y N	OVM or Hnu (PPM)	GRAPHIC LOG	WELL DESIGN	DEPTH FEET
5	SAND, tan, fine-grained, moderately sorted, no odor	0.0'-10.0'						5
10	SILTY SAND, tan, very fine-grained, some clay, no odor	10.0-20.0'	5.0'		1.8			10
15								15
20	SILTY SAND, tan, moist, no odor	20.0-30.0'	15.0'		1.7			20
25								25
30	SILT, tan-gray, very fine-grained	30.0-40.0'	25.0'		4.3			30
35								35
40	SILT, gray, some very fine-grained sand with shale, moist, no odor	40.0-50.0'	35.0'		2.6			40
45								45
50	SILT, gray to light green some sand, very fine-grained, moist, no odor	50.0-60.0'	45.0'		2.4			50
55								55

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

WATER LEVEL  
 AT COMPLETION  
 AFTER HOURS  
 SOIL SAMPLE SUBMITTED TO LAB

BOTTOM CAP  
 SAND PACK  
 BENTONITE SEAL

FACTORY - SLOTTED WELL SCREEN  
 WELL CASING  
 BENTONITE/CEMENT GROUT SEAL

## **SOIL BORING/MONITOR WELL LOG**

BORING/WELL #: MW-2  
PROJECT NO.: 2007210  
LOCATION: MALJAMAR, NEW MEXICO  
TOTAL DEPTH: 98.0'  
SURFACE ELEV:  
SCREEN: DIA: 2" LENGTH: 30' SIZE: 0.010"  
CASING: DIA: 2" LENGTH: 68' TYPE: PVC  
DRILLING METHOD(S): Air Rotary

CLIENT: CONOCO, INC.  
PROJECT: MALJAMAR GAS PLANT  
WATER LEVEL: INITIAL: 82.15'24 HOURS: 76.32'  
BORE HOLE DIAMETER:  
DRILLING COMPANY: HARRISON & COOPER  
DATE DRILLED: 9/28/00  
DRILLER: C. HARRISON  
OVERSIGHT: C. YANCEY

SS - DRIVEN SPLIT SPOON  
ST - PRESSED SHELBY TUBE  
RC - ROCK CORE  
CT - 5 FT CONTINUOUS SAM  
NR - NO READINGS TAKEN

HSA - HOLLOW STEM AUGER  
CFA - CONTINUOUS FLIGHT AUGERS  
MD - MUD DRILLING  
AD - AIR DRILLING

WATER LEVEL  
AT COMPLETION  
AFTER HOURS  
SOIL SAMPLE  
SUBMITTED TO LA

- FACTORY - SLOTTED WELL SCREEN
- WELL CASING
- BENTONITE/CEMENT GROUT SEAL

## **SOIL BORING/MONITOR WELL LOG**

BORING/WELL #: MW-3  
PROJECT NO.: 2007210  
LOCATION: MALJAMAR, NEW MEXICO  
TOTAL DEPTH: 98.0'  
SURFACE ELEV:  
SCREEN: DIA: 2" LENGTH: 30' SIZE: 0.010"  
CASING: DIA: 2" LENGTH: 68' TYPE: PVC  
DRILLING METHOD(S): Air Rotary

CLIENT: CONOCO, INC.  
PROJECT: MALJAMAR GAS PLANT  
WATER LEVEL: INITIAL: 81.21' 24 HOURS: 76.94'  
BORE HOLE DIAMETER:  
DRILLING COMPANY: HARRISON & COOPER  
DATE DRILLED: 9/28/00  
DRILLER: C. HARRISON  
OVERSIGHT: C. YANCEY

SS - DRIVEN SPLIT SPOON  
ST - PRESSED SHELBY TUB  
RC - ROCK CORE  
CT - 5 FT CONTINUOUS SAMPLING  
NR - NO READINGS TAKEN

HSA - HOLLOW STEM AUGER  
CFA - CONTINUOUS FLIGHT AUGERS  
MD - MUD DRILLING  
AD - AIR DRILLING

WATER LEVEL  
AT COMPLETION  
AFTER HOURS  
SOIL SAMPLE  
SUBMITTED TO LA

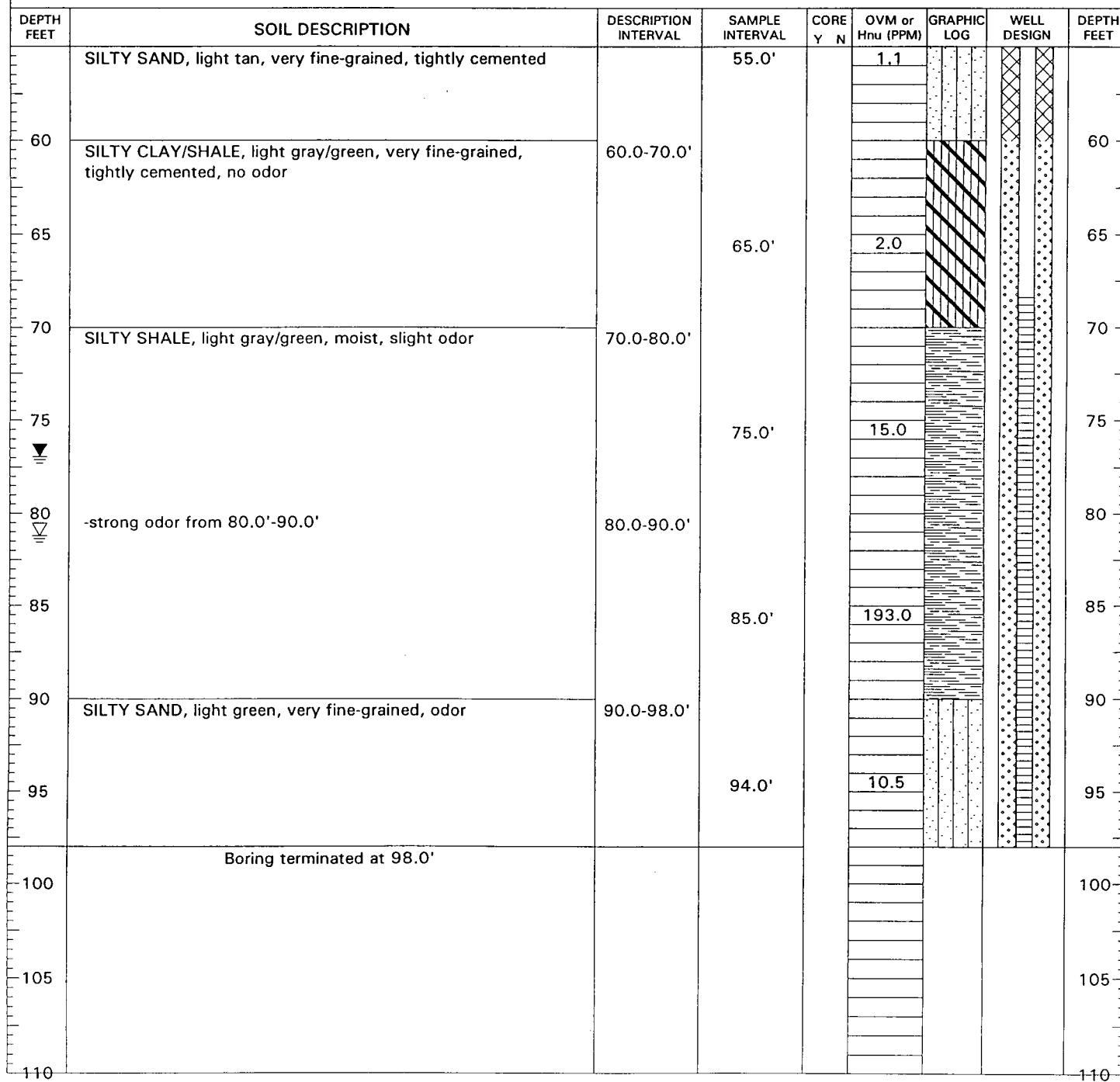
-  BOTTOM CAP
-  SAND PACK
-  BENTONITE SEAL

- FACTORY - SLOTTED WELL SCREEN
- WELL CASING
- BENTONITE/CEMENT GROUT SEAL

# SOIL BORING/MONITOR WELL LOG

BORING/WELL #: MW-3  
 PROJECT NO.: 2007210  
 LOCATION: MALJAMAR, NEW MEXICO  
 TOTAL DEPTH: 98.0'  
 SURFACE ELEV:  
 SCREEN: DIA: 2" LENGTH: 30' SIZE: 0.010"  
 CASING: DIA: 2" LENGTH: 68' TYPE: PVC  
 DRILLING METHOD(S): Air Rotary

CLIENT: CONOCO, INC.  
 PROJECT: MALJAMAR GAS PLANT  
 WATER LEVEL: INITIAL: 81.21' 24 HOURS: 76.94'  
 BORE HOLE DIAMETER:  
 DRILLING COMPANY: HARRISON & COOPER  
 DATE DRILLED: 9/28/00  
 DRILLER: C. HARRISON  
 OVERSIGHT: C. YANCEY



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

WATER LEVEL  
 AT COMPLETION  
 AFTER HOURS  
 SOIL SAMPLE SUBMITTED TO LAB

 BOTTOM CAP  
 SAND PACK  
 BENTONITE SEAL

 FACTORY - SLOTTED WELL SCREEN  
 WELL CASING  
 BENTONITE/CEMENT GROUT SEAL

## **ATTACHMENT B**

**SEVERN  
TRENT  
SERVICES**

**STL Tampa East**  
5910 Breckenridge Parkway  
Suite H  
Tampa, FL 33610-4236

Tel: 813 621 0784  
Fax: 813 623 6021  
[www.stl-inc.com](http://www.stl-inc.com)

## **ANALYTICAL REPORT**

**PROJECT NO. NG00001**

**Maljamar Gas Plant**

**Lot #: B01300142**

**Clyde L. Yancey**

**Maxim Technologies**

**SEVERN TRENT LABORATORIES, INC.**

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



**Nancy Robertson**  
Project Manager

**October 16, 2000**

October 16, 2000

**STL LOT NUMBER: B01300142**  
PO/CONTRACT: 4500522251/NG00001

Clyde L. Yancey  
Maxim Technologies  
10601 Lomas NE  
Suite 106  
Albuquerque, NM 87112

Dear Clyde L. Yancey,

This report contains the analytical results for the five samples received under chain of custody by STL on September 30, 2000. These samples are associated with your Maljamar Gas Plant project.

All applicable quality control procedures met method-specified acceptance criteria except as noted on the following page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions, please feel free to call me at 813-621-0784.

LOT NUMBER B0I300142

**Affected Samples: 1, 3, 4**

**Affected Methods: 8270C**

The Surrogate recovery for 2,4,6-Tribromophenol in the above mentioned samples was recovered at percentages above the upper control limit which represents high bias. Since the compounds associated with this surrogate did not have any positive results, we believe this non conformance had no impact on the quality of the data.

# EXECUTIVE SUMMARY - Detection Highlights

B01300142

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
<b>MW-1 09/28/00 17:00 001</b>				
Arsenic	0.065	0.0050	mg/L	SW846 6010B
Lead	0.0075	0.0030	mg/L	SW846 6010B
Barium	0.31	0.10	mg/L	SW846 6010B
Chromium	0.013	0.010	mg/L	SW846 6010B
Benzene	700	50	ug/L	SW846 8260B
Benzene	340 E	1.0	ug/L	SW846 8260B
sec-Butylbenzene	1.1	1.0	ug/L	SW846 8260B
Ethylbenzene	19	1.0	ug/L	SW846 8260B
Isopropylbenzene	1.9	1.0	ug/L	SW846 8260B
Naphthalene	2.2	1.0	ug/L	SW846 8260B
n-Propylbenzene	1.3	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	2.1	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	6.7	1.0	ug/L	SW846 8260B
Specific Conductance	1530	2.0	umhos/cm	MCAWW 120.1
pH (liquid)	7.1	0.10	No Units	MCAWW 150.1
Total Dissolved Solids	740	40.0	mg/L	MCAWW 160.1
Fluoride	0.28	0.10	mg/L	MCAWW 340.2
Chloride	176	10.0	mg/L	MCAWW 300.0A
Sulfate	56.7	10.0	mg/L	MCAWW 300.0A
Bicarbonate	454	5.0	mg/L	MCAWW 310.1
Alkalinity				
Alkalinity as CaCO <sub>3</sub> to pH 4.5	454	5.0	mg/L	MCAWW 310.1
<b>MW-2 09/28/00 16:00 002</b>				
Arsenic	0.11	0.0050	mg/L	SW846 6010B
Lead	0.092	0.0060	mg/L	SW846 6010B
Barium	3.1	0.10	mg/L	SW846 6010B
Chromium	0.12	0.020	mg/L	SW846 6010B
2-Methylnaphthalene	48	10	ug/L	SW846 8270C
2-Methylphenol	14	10	ug/L	SW846 8270C
Naphthalene	30	10	ug/L	SW846 8270C
Phenol	25	10	ug/L	SW846 8270C
Benzene	15000	750	ug/L	SW846 8260B
Toluene	4700	750	ug/L	SW846 8260B
Specific Conductance	1690	2.0	umhos/cm	MCAWW 120.1
pH (liquid)	7.3	0.10	No Units	MCAWW 150.1
Total Dissolved Solids	1200	40.0	mg/L	MCAWW 160.1
Fluoride	0.21	0.10	mg/L	MCAWW 340.2
Chloride	296	10.0	mg/L	MCAWW 300.0A
Sulfate	35.7	10.0	mg/L	MCAWW 300.0A

(Continued on next page)

# EXECUTIVE SUMMARY - Detection Highlights

B0I300142

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
<b>MW-2 09/28/00 16:00 002</b>				
Bicarbonate	345	5.0	mg/L	MCAWW 310.1
Alkalinity				
Alkalinity as CaCO <sub>3</sub> to pH 4.5	345	5.0	mg/L	MCAWW 310.1
<b>MW-3 09/28/00 003</b>				
Arsenic	0.16	0.0050	mg/L	SW846 6010B
Lead	0.088	0.0060	mg/L	SW846 6010B
Barium	4.3	0.10	mg/L	SW846 6010B
Chromium	0.16	0.020	mg/L	SW846 6010B
2-Methylnaphthalene	53	10	ug/L	SW846 8270C
Naphthalene	34	10	ug/L	SW846 8270C
Phenol	40	10	ug/L	SW846 8270C
2-Methylnaphthalene	35	10	ug/L	SW846 8270C
Naphthalene	22	10	ug/L	SW846 8270C
Phenol	36	10	ug/L	SW846 8270C
Benzene	30000	1500	ug/L	SW846 8260B
Toluene	5000	1500	ug/L	SW846 8260B
Specific Conductance	2530	2.0	umhos/cm	MCAWW 120.1
pH (liquid)	7.3	0.10	No Units	MCAWW 150.1
Total Dissolved Solids	1520	10.0	mg/L	MCAWW 160.1
Fluoride	0.15	0.10	mg/L	MCAWW 340.2
Chloride	554	20.0	mg/L	MCAWW 300.0A
Sulfate	67.8	10.0	mg/L	MCAWW 300.0A
Bicarbonate	382	5.0	mg/L	MCAWW 310.1
Alkalinity				
Alkalinity as CaCO <sub>3</sub> to pH 4.5	383	5.0	mg/L	MCAWW 310.1
<b>MW-4 09/28/00 004</b>				
Arsenic	0.13	0.0050	mg/L	SW846 6010B
Lead	0.067	0.0030	mg/L	SW846 6010B
Barium	0.58	0.10	mg/L	SW846 6010B
Chromium	0.033	0.010	mg/L	SW846 6010B
Benzene	350 E	1.0	ug/L	SW846 8260B
Benzene	880	50	ug/L	SW846 8260B
sec-Butylbenzene	1.0	1.0	ug/L	SW846 8260B
Ethylbenzene	26 E	1.0	ug/L	SW846 8260B
Isopropylbenzene	2.2	1.0	ug/L	SW846 8260B
Naphthalene	1.4	1.0	ug/L	SW846 8260B
n-Propylbenzene	1.5	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	2.6	1.0	ug/L	SW846 8260B

(Continued on next page)

# EXECUTIVE SUMMARY - Detection Highlights

B01300142

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
<b>MW-4 09/28/00 004</b>				
m-Xylene & p-Xylene	8.6	1.0	ug/L	SW846 8260B
Specific Conductance	1570	2.0	umhos/cm	MCAWW 120.1
pH (liquid)	7.3	0.10	No Units	MCAWW 150.1
Total Dissolved Solids	684	40.0	mg/L	MCAWW 160.1
Fluoride	0.20	0.10	mg/L	MCAWW 340.2
Chloride	175	10.0	mg/L	MCAWW 300.0A
Sulfate	56.3	10.0	mg/L	MCAWW 300.0A
Bicarbonate	460	5.0	mg/L	MCAWW 310.1
Alkalinity				
Alkalinity as CaCO <sub>3</sub> to pH 4.5	461	5.0	mg/L	MCAWW 310.1

## METHODS SUMMARY

B01300142

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
pH (Electrometric)	MCAWW 150.1	MCAWW 150.1
Alkalinity	MCAWW 310.1	MCAWW 310.1
Bicarbonate Alkalinity	MCAWW 310.1	MCAWW 310.1
Carbonate Alkalinity	MCAWW 310.1	MCAWW 310.1
Chloride	MCAWW 300.0A	MCAWW 300.0A
Filterable Residue (TDS)	MCAWW 160.1	MCAWW 160.1
Fluoride (Potentiometric, Ion Selective Electrode)	MCAWW 340.2	MCAWW 340.2
Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3005A
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A	SW846 7470A
Nitrate as N	MCAWW 300.0A	MCAWW 300.0A
Semivolatile Organic Compounds by GC/MS	SW846 8270C	SW846 3510C
Specific Conductance	MCAWW 120.1	MCAWW 120.2
Sulfate	MCAWW 300.0A	MCAWW 300.0A
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3005A
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B/826

### References:

MCAWW "Methods for Chemical Analysis of Water and Wastes",  
EPA-600/4-79-020, March 1983 and subsequent revisions.

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

# SAMPLE SUMMARY

B0I300142

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
DLCTM	001	MW-1	09/28/00	17:00
DLCTP	002	MW-2	09/28/00	16:00
DLCTQ	003	MW-3	09/28/00	
DLCTT	004	MW-4	09/28/00	
DLCTW	005	TRIP BLANK	09/28/00	

## 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.

## CONOCO

Client Sample ID: MW-1

## GC/MS Volatiles

Lot-Sample #....: B0I300142-001    Work Order #....: DLCTM301    Matrix.....: WATER  
 Date Sampled....: 09/28/00    Date Received...: 09/30/00  
 Prep Date.....: 10/09/00    Analysis Date...: 10/09/00  
 Prep Batch #....: 0284160  
 Dilution Factor: 1              Initial Wgt/Vol: 25 mL              Final Wgt/Vol.: 25 mL  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	340 E	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromochloromethane	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	1.1	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro- propane	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	19	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	1.9	1.0	ug/L
p-Isopropyltoluene	ND	1.0	ug/L

(Continued on next page)

CONOCO

Client Sample ID: MW-1

## GC/MS Volatiles

Lot-Sample #....: B0I300142-001 Work Order #....: DLCTM301 Matrix.....: WATER

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Methylene chloride	ND	2.0	ug/L
Naphthalene	2.2	1.0	ug/L
n-Propylbenzene	1.3	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	1.0	ug/L
1,2,4-Trichloro- benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,2,4-Trimethylbenzene	2.1	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
o-Xylene	ND	1.0	ug/L
m-Xylene & p-Xylene	6.7	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY	
		LIMITS	
Bromofluorobenzene	99	(80	- 120)
1,2-Dichloroethane-d4	101	(77	- 131)
Toluene-d8	101	(80	- 120)
Dibromofluoromethane	95	(80	- 125)

NOTE(S) :

E Estimated result. Result concentration exceeds the calibration range.

**CONOCO**

**Client Sample ID: MW-1**

## GC/MS Volatiles

**Lot-Sample #....:** B01300142-001    **Work Order #....:** DLCTM201    **Matrix.....:** WATER  
**Date Sampled....:** 09/28/00    **Date Received..:** 09/30/00  
**Prep Date.....:** 10/06/00    **Analysis Date..:** 10/06/00  
**Prep Batch #....:** 0280385  
**Dilution Factor:** 50    **Initial Wgt/Vol:** 0.5 mL    **Final Wgt/Vol...:** 25 mL  
**Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	700	50.	ug/L
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS	
Bromofluorobenzene	98	(80 - 120)	
1,2-Dichloroethane-d4	103	(77 - 131)	
Toluene-d8	101	(80 - 120)	
Dibromofluoromethane	101	(80 - 125)	

## CONOCO

Client Sample ID: MW-1

## GC/MS Semivolatiles

Lot-Sample #....: B0I300142-001    Work Order #....: DLCTM102    Matrix.....: WATER  
 Date Sampled....: 09/28/00    Date Received...: 09/30/00  
 Prep Date.....: 10/02/00    Analysis Date...: 10/03/00  
 Prep Batch #....: 0276511  
 Dilution Factor: 1    Initial Wgt/Vol: 1000 mL    Final Wgt/Vol.: 1 mL  
 Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Anthracene	ND	10	ug/L
Benzo (a)anthracene	ND	10	ug/L
Benzo (b)fluoranthene	ND	10	ug/L
Benzo (k)fluoranthene	ND	10	ug/L
Benzo (ghi)perylene	ND	10	ug/L
Benzo (a)pyrene	ND	10	ug/L
bis(2-Chloroethoxy) methane	ND	10	ug/L
bis(2-Chloroethyl)- ether	ND	10	ug/L
bis(2-Chloroisopropyl) ether	ND	10	ug/L
bis(2-Ethylhexyl) phthalate	ND	10	ug/L
4-Bromophenyl phenyl ether	ND	10	ug/L
Butyl benzyl phthalate	ND	10	ug/L
Carbazole	ND	10	ug/L
4-Chloroaniline	ND	10	ug/L
4-Chloro-3-methylphenol	ND	10	ug/L
2-Chloronaphthalene	ND	10	ug/L
2-Chlorophenol	ND	10	ug/L
4-Chlorophenyl phenyl ether	ND	10	ug/L
Chrysene	ND	10	ug/L
Dibenz (a, h)anthracene	ND	10	ug/L
Dibenzofuran	ND	10	ug/L
Di-n-butyl phthalate	ND	10	ug/L
1,2-Dichlorobenzene	ND	10	ug/L
1,3-Dichlorobenzene	ND	10	ug/L
1,4-Dichlorobenzene	ND	10	ug/L
3,3'-Dichlorobenzidine	ND	50	ug/L
2,4-Dichlorophenol	ND	10	ug/L
Diethyl phthalate	ND	10	ug/L
2,4-Dimethylphenol	ND	10	ug/L
Dimethyl phthalate	ND	10	ug/L

(Continued on next page)

CONOCO

Client Sample ID: MW-1

**GC/MS Semivolatiles**

Lot-Sample #....: B01300142-001 Work Order #....: DLCTM102 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
4,6-Dinitro- 2-methylphenol	ND	50	ug/L
2,4-Dinitrophenol	ND	50	ug/L
2,4-Dinitrotoluene	ND	10	ug/L
2,6-Dinitrotoluene	ND	10	ug/L
Di-n-octyl phthalate	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Fluorene	ND	10	ug/L
Hexachlorobenzene	ND	10	ug/L
Hexachlorobutadiene	ND	10	ug/L
Hexachlorocyclopenta- diene	ND	10	ug/L
Hexachloroethane	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
Isophorone	ND	10	ug/L
2-Methylnaphthalene	ND	10	ug/L
2-Methylphenol	ND	10	ug/L
3-Methylphenol & 4-Methylphenol	ND	20	ug/L
Naphthalene	ND	10	ug/L
2-Nitroaniline	ND	50	ug/L
3-Nitroaniline	ND	50	ug/L
4-Nitroaniline	ND	50	ug/L
Nitrobenzene	ND	10	ug/L
2-Nitrophenol	ND	10	ug/L
4-Nitrophenol	ND	50	ug/L
N-Nitrosodiphenylamine	ND	10	ug/L
N-Nitrosodi-n-propyl- amine	ND	10	ug/L
Pentachlorophenol	ND	50	ug/L
Phenanthrene	ND	10	ug/L
Phenol	ND	10	ug/L
Pyrene	ND	10	ug/L
1,2,4-Trichloro- benzene	ND	10	ug/L
2,4,5-Trichloro- phenol	ND	10	ug/L
2,4,6-Trichloro- phenol	ND	10	ug/L

(Continued on next page)

CONOCO

Client Sample ID: MW-1

GC/MS Semivolatiles

Lot-Sample #....: B01300142-001 Work Order #....: DLCTM102 Matrix.....: WATER

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2,4,6-Tribromophenol	124 *	(30 - 120)
2-Fluorobiphenyl	76	(28 - 120)
2-Fluorophenol	30	(10 - 120)
Nitrobenzene-d5	61	(30 - 120)
Phenol-d5	23	(10 - 120)
Terphenyl-d14	108	(17 - 120)

NOTE(S) :

\* Surrogate recovery is outside stated control limits.

## CONOCO

Client Sample ID: MW-1

## TOTAL Metals

**Lot-Sample #....:** B0I300142-001                   **Matrix.....:** WATER  
**Date Sampled....:** 09/28/00                   **Date Received..:** 09/30/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
<b>Prep Batch #....:</b> 0285321						
Mercury	ND	0.20	ug/L	SW846 7470A Initial Wgt/Vol: 0	10/11/00	DLCTM114 Final Wgt/Vol...: 0
<b>Prep Batch #....:</b> 0285329						
Arsenic	0.065	0.0050	mg/L	SW846 6010B Initial Wgt/Vol: 0	10/11/00	DLCTM104 Final Wgt/Vol...: 0
Lead	0.0075	0.0030	mg/L	SW846 6010B Initial Wgt/Vol: 0	10/11/00	DLCTM105 Final Wgt/Vol...: 0
Barium	0.31	0.10	mg/L	SW846 6010B Initial Wgt/Vol: 0	10/11/00	DLCTM10C Final Wgt/Vol...: 0
Selenium	ND	0.0050	mg/L	SW846 6010B Initial Wgt/Vol: 0	10/11/00	DLCTM106 Final Wgt/Vol...: 0
Cadmium	ND	0.0050	mg/L	SW846 6010B Initial Wgt/Vol: 0	10/11/00	DLCTM10E Final Wgt/Vol...: 0
Chromium	0.013	0.010	mg/L	SW846 6010B Initial Wgt/Vol: 0	10/11/00	DLCTM10G Final Wgt/Vol...: 0
Silver	ND	0.010	mg/L	SW846 6010B Initial Wgt/Vol: 0	10/11/00	DLCTM10U Final Wgt/Vol...: 0

## CONOCO

Client Sample ID: MW-1

## General Chemistry

Lot-Sample #....: B0I300142-001      Work Order #....: DLCTM      Matrix.....: WATER  
 Date Sampled...: 09/28/00      Date Received...: 09/30/00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
pH (liquid)	7.1	0.10	No Units	MCAWW 150.1	09/30/00	0276315
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol...: 0	
Alkalinity as CaCO <sub>3</sub> to pH 4.5	454	5.0	mg/L	MCAWW 310.1	10/02/00	0276281
		Dilution Factor: 1		Initial Wgt/Vol: 50 mL	Final Wgt/Vol...: 0	
Bicarbonate Alkalinity	454	5.0	mg/L	MCAWW 310.1	10/02/00	0276294
		Dilution Factor: 1		Initial Wgt/Vol: 50 mL	Final Wgt/Vol...: 0	
Carbonate Alkalinity	ND	5.0	mg/L	MCAWW 310.1	10/02/00	0276296
		Dilution Factor: 1		Initial Wgt/Vol: 50 mL	Final Wgt/Vol...: 0	
Chloride	176	10.0	mg/L	MCAWW 300.0A	09/30/00	0276186
		Dilution Factor: 10		Initial Wgt/Vol: 10 mL	Final Wgt/Vol...: 0	
Fluoride	0.28	0.10	mg/L	MCAWW 340.2	10/11/00	0285184
		Dilution Factor: 1		Initial Wgt/Vol: 50 mL	Final Wgt/Vol...: 0	
Nitrate as N	ND	5.0	mg/L	MCAWW 300.0A	09/30/00	0276188
		Dilution Factor: 10		Initial Wgt/Vol: 10 mL	Final Wgt/Vol...: 0	
Specific Conductance	1530	2.0	umhos/cm	MCAWW 120.1	10/05/00	0280128
		Dilution Factor: 2		Initial Wgt/Vol: 50 mL	Final Wgt/Vol...: 0	
Sulfate	56.7	10.0	mg/L	MCAWW 300.0A	09/30/00	0276189
		Dilution Factor: 10		Initial Wgt/Vol: 10 mL	Final Wgt/Vol...: 0	
Total Dissolved Solids	740	40.0	mg/L	MCAWW 160.1	10/04-10/05/00	0283153
		Dilution Factor: 4		Initial Wgt/Vol: 100 mL	Final Wgt/Vol...: 0	

## CONOCO

Client Sample ID: MW-2

## GC/MS Volatiles

Lot-Sample #...: B0I300142-002      Work Order #...: DLCTP101      Matrix.....: WATER  
 Date Sampled...: 09/28/00      Date Received...: 09/30/00  
 Prep Date.....: 10/06/00      Analysis Date...: 10/06/00  
 Prep Batch #...: 0280385  
 Dilution Factor: 750      Initial Wgt/Vol: 0.333 mL      Final Wgt/Vol.: 25 mL  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	15000	750	ug/L
Bromobenzene	ND	750	ug/L
Bromochloromethane	ND	750	ug/L
Bromodichloromethane	ND	750	ug/L
Bromoform	ND	750	ug/L
Bromomethane	ND	750	ug/L
n-Butylbenzene	ND	750	ug/L
sec-Butylbenzene	ND	750	ug/L
tert-Butylbenzene	ND	750	ug/L
Carbon tetrachloride	ND	750	ug/L
Chlorobenzene	ND	750	ug/L
Chlorodibromomethane	ND	750	ug/L
Chloroethane	ND	750	ug/L
Chloroform	ND	750	ug/L
Chloromethane	ND	750	ug/L
2-Chlorotoluene	ND	750	ug/L
4-Chlorotoluene	ND	750	ug/L
1,2-Dibromo-3-chloro- propane	ND	1500	ug/L
1,2-Dibromoethane	ND	750	ug/L
Dibromomethane	ND	750	ug/L
1,2-Dichlorobenzene	ND	750	ug/L
1,3-Dichlorobenzene	ND	750	ug/L
1,4-Dichlorobenzene	ND	750	ug/L
Dichlorodifluoromethane	ND	750	ug/L
1,1-Dichloroethane	ND	750	ug/L
1,2-Dichloroethane	ND	750	ug/L
1,1-Dichloroethene	ND	750	ug/L
cis-1,2-Dichloroethene	ND	750	ug/L
trans-1,2-Dichloroethene	ND	750	ug/L
1,2-Dichloropropane	ND	750	ug/L
1,3-Dichloropropane	ND	750	ug/L
2,2-Dichloropropane	ND	750	ug/L
1,1-Dichloropropene	ND	750	ug/L
Ethylbenzene	ND	750	ug/L
Hexachlorobutadiene	ND	750	ug/L
Isopropylbenzene	ND	750	ug/L
p-Isopropyltoluene	ND	750	ug/L

(Continued on next page)

CONOCO

Client Sample ID: MW-2

## GC/MS Volatiles

Lot-Sample #....: B01300142-002 Work Order #....: DLCTP101 Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Methylene chloride	ND	1500	ug/L
Naphthalene	ND	750	ug/L
n-Propylbenzene	ND	750	ug/L
Styrene	ND	750	ug/L
1,1,1,2-Tetrachloroethane	ND	750	ug/L
1,1,2,2-Tetrachloroethane	ND	750	ug/L
Tetrachloroethene	ND	750	ug/L
Toluene	4700	750	ug/L
1,2,3-Trichlorobenzene	ND	750	ug/L
1,2,4-Trichloro- benzene	ND	750	ug/L
1,1,1-Trichloroethane	ND	750	ug/L
1,1,2-Trichloroethane	ND	750	ug/L
Trichloroethene	ND	750	ug/L
Trichlorofluoromethane	ND	750	ug/L
1,2,3-Trichloropropane	ND	750	ug/L
1,2,4-Trimethylbenzene	ND	750	ug/L
1,3,5-Trimethylbenzene	ND	750	ug/L
Vinyl chloride	ND	750	ug/L
o-Xylene	ND	750	ug/L
m-Xylene & p-Xylene	ND	750	ug/L
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	
Bromofluorobenzene	97	(80 - 120)	
1,2-Dichloroethane-d4	102	(77 - 131)	
Toluene-d8	102	(80 - 120)	
Dibromofluoromethane	102	(80 - 125)	

## CONOCO

Client Sample ID: MW-2

## GC/MS Semivolatiles

Lot-Sample #....:	B0I300142-002	Work Order #....:	DLCTP102	Matrix.....:	WATER
Date Sampled....:	09/28/00	Date Received...:	09/30/00		
Prep Date.....:	10/02/00	Analysis Date...:	10/03/00		
Prep Batch #....:	0276511				
Dilution Factor:	1	Initial Wgt/Vol:	1000 mL	Final Wgt/Vol..:	1 mL
		Method.....:	SW846 8270C		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Anthracene	ND	10	ug/L
Benzo(a)anthracene	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
bis(2-Chloroethoxy) methane	ND	10	ug/L
bis(2-Chloroethyl)- ether	ND	10	ug/L
bis(2-Chloroisopropyl) ether	ND	10	ug/L
bis(2-Ethylhexyl) phthalate	ND	10	ug/L
4-Bromophenyl phenyl ether	ND	10	ug/L
Butyl benzyl phthalate	ND	10	ug/L
Carbazole	ND	10	ug/L
4-Chloroaniline	ND	10	ug/L
4-Chloro-3-methylphenol	ND	10	ug/L
2-Chloronaphthalene	ND	10	ug/L
2-Chlorophenol	ND	10	ug/L
4-Chlorophenyl phenyl ether	ND	10	ug/L
Chrysene	ND	10	ug/L
Dibenz(a,h)anthracene	ND	10	ug/L
Dibenzofuran	ND	10	ug/L
Di-n-butyl phthalate	ND	10	ug/L
1,2-Dichlorobenzene	ND	10	ug/L
1,3-Dichlorobenzene	ND	10	ug/L
1,4-Dichlorobenzene	ND	10	ug/L
3,3'-Dichlorobenzidine	ND	50	ug/L
2,4-Dichlorophenol	ND	10	ug/L
Diethyl phthalate	ND	10	ug/L
2,4-Dimethylphenol	ND	10	ug/L
Dimethyl phthalate	ND	10	ug/L

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CONOCO

Client Sample ID: MW-2

## GC/MS Semivolatiles

Lot-Sample #...: B01300142-002 Work Order #...: DLCTP102 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
,6-Dinitro-2-methylphenol	ND	50	ug/L
,4-Dinitrophenol	ND	50	ug/L
,4-Dinitrotoluene	ND	10	ug/L
,6-Dinitrotoluene	ND	10	ug/L
i-n-octyl phthalate	ND	10	ug/L
luoranthene	ND	10	ug/L
luorene	ND	10	ug/L
exachlorobenzene	ND	10	ug/L
exachlorobutadiene	ND	10	ug/L
exachlorocyclopenta-diene	ND	10	ug/L
exachloroethane	ND	10	ug/L
ndeno(1,2,3-cd)pyrene	ND	10	ug/L
sophorone	ND	10	ug/L
-Methylnaphthalene	<b>48</b>	<b>10</b>	ug/L
-Methylphenol	<b>14</b>	<b>10</b>	ug/L
-Methylphenol & 4-Methylphenol	ND	20	ug/L
aphthalene	<b>30</b>	<b>10</b>	ug/L
-Nitroaniline	ND	50	ug/L
-Nitroaniline	ND	50	ug/L
-Nitroaniline	ND	50	ug/L
itrobenzene	ND	10	ug/L
-Nitrophenol	ND	10	ug/L
-Nitrophenol	ND	50	ug/L
-Nitrosodiphenylamine	ND	10	ug/L
-Nitrosodi-n-propyl-amine	ND	10	ug/L
entachlorophenol	ND	50	ug/L
henanthrene	ND	10	ug/L
henol	<b>25</b>	<b>10</b>	ug/L
yrene	ND	10	ug/L
,2,4-Trichlorobenzene	ND	10	ug/L
,4,5-Trichlorophenol	ND	10	ug/L
,4,6-Trichlorophenol	ND	10	ug/L

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CONOCO

Client Sample ID: MW-2

GC/MS Semivolatiles

Lot-Sample #...: B0I300142-002 Work Order #: DLCTP102 Matrix.....: WATER

<u>SURROGATE</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>
2,4,6-Tribromophenol	117	(30 - 120)
2-Fluorobiphenyl	80	(28 - 120)
2-Fluorophenol	65	(10 - 120)
Nitrobenzene-d5	85	(30 - 120)
Phenol-d5	41	(10 - 120)
Terphenyl-d14	111	(17 - 120)

**CONOCO**

**Client Sample ID: MW-2**

### TOTAL Metals

**Lot-Sample #....:** B01300142-002  
**Date Sampled....:** 09/28/00

### **Matrix.....: WATER**

Date Received..: 09/30/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS_DATE	WORK ORDER #
<b>Prep Batch #....: 0285321</b>						
Mercury	ND	0.20	ug/L	SW846 7470A	10/11/00	DLCTP114
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol...: 0	
<b>Prep Batch #....: 0285329</b>						
Arsenic	0.11	0.0050	mg/L	SW846 6010B	10/11/00	DLCTP104
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol...: 0	
Lead	0.092	0.0060	mg/L	SW846 6010B	10/11/00	DLCTP105
		Dilution Factor: 2		Initial Wgt/Vol:	Final Wgt/Vol...: 0	
Barium	3.1	0.10	mg/L	SW846 6010B	10/11/00	DLCTP10C
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol...: 0	
Selenium	ND	0.010	mg/L	SW846 6010B	10/11/00	DLCTP106
		Dilution Factor: 2		Initial Wgt/Vol:	Final Wgt/Vol...: 0	
Cadmium	ND	0.0050	mg/L	SW846 6010B	10/11/00	DLCTP10E
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol...: 0	
Chromium	0.12	0.020	mg/L	SW846 6010B	10/11/00	DLCTP10G
		Dilution Factor: 2		Initial Wgt/Vol:	Final Wgt/Vol...: 0	
Silver	ND	0.010	mg/L	SW846 6010B	10/11/00	DLCTP10U
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol...: 0	

CONOCO

Client Sample ID: MW-2

**General Chemistry**

**Lot-Sample #....:** B0I300142-002    **Work Order #....:** DLCTP    **Matrix.....:** WATER  
**Date Sampled....:** 09/28/00    **Date Received...:** 09/30/00

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-ANALYSIS DATE</u>	<u>PREP BATCH #</u>
pH (liquid)	7.3	0.10	No Units	MCAWW 150.1	09/30/00	0276315
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol...: 0	
Alkalinity as CaCO <sub>3</sub> to pH 4.5	345	5.0	mg/L	MCAWW 310.1	10/02/00	0276281
		Dilution Factor: 1		Initial Wgt/Vol: 50 mL	Final Wgt/Vol...: 0	
Bicarbonate Alkalinity	345	5.0	mg/L	MCAWW 310.1	10/02/00	0276294
		Dilution Factor: 1		Initial Wgt/Vol: 50 mL	Final Wgt/Vol...: 0	
Carbonate Alkalinity ND		5.0	mg/L	MCAWW 310.1	10/02/00	0276296
		Dilution Factor: 1		Initial Wgt/Vol: 50 mL	Final Wgt/Vol...: 0	
Chloride	296	10.0	mg/L	MCAWW 300.0A	09/30/00	0276186
		Dilution Factor: 10		Initial Wgt/Vol: 10 mL	Final Wgt/Vol...: 0	
Fluoride	0.21	0.10	mg/L	MCAWW 340.2	10/11/00	0285184
		Dilution Factor: 1		Initial Wgt/Vol: 50 mL	Final Wgt/Vol...: 0	
Nitrate as N	ND	5.0	mg/L	MCAWW 300.0A	09/30/00	0276188
		Dilution Factor: 10		Initial Wgt/Vol: 10 mL	Final Wgt/Vol...: 0	
Specific Conductance	1690	2.0	umhos/cm	MCAWW 120.1	10/05/00	0280128
		Dilution Factor: 2		Initial Wgt/Vol: 50 mL	Final Wgt/Vol...: 0	
Sulfate	35.7	10.0	mg/L	MCAWW 300.0A	09/30/00	0276189
		Dilution Factor: 10		Initial Wgt/Vol: 10 mL	Final Wgt/Vol...: 0	
Total Dissolved Solids	1200	40.0	mg/L	MCAWW 160.1	10/04-10/05/00	0283153
		Dilution Factor: 4		Initial Wgt/Vol: 100 mL	Final Wgt/Vol...: 0	

## CONOCO

Client Sample ID: MW-3

## GC/MS Volatiles

Lot-Sample #....: B0I300142-003    Work Order #....: DLCTQ101    Matrix.....: WATER  
 Date Sampled...: 09/28/00    Date Received...: 09/30/00  
 Prep Date.....: 10/06/00    Analysis Date...: 10/06/00  
 Prep Batch #....: 0280385  
 Dilution Factor: 1500    Initial Wgt/Vol: 0.0167 mL    Final Wgt/Vol.: 25 mL  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	30000	1500	ug/L
Bromobenzene	ND	1500	ug/L
Bromochloromethane	ND	1500	ug/L
Bromodichloromethane	ND	1500	ug/L
Bromoform	ND	1500	ug/L
Bromomethane	ND	1500	ug/L
n-Butylbenzene	ND	1500	ug/L
sec-Butylbenzene	ND	1500	ug/L
tert-Butylbenzene	ND	1500	ug/L
Carbon tetrachloride	ND	1500	ug/L
Chlorobenzene	ND	1500	ug/L
Chlorodibromomethane	ND	1500	ug/L
Chloroethane	ND	1500	ug/L
Chloroform	ND	1500	ug/L
Chloromethane	ND	1500	ug/L
2-Chlorotoluene	ND	1500	ug/L
4-Chlorotoluene	ND	1500	ug/L
1,2-Dibromo-3-chloro- propane	ND	3000	ug/L
1,2-Dibromoethane	ND	1500	ug/L
Dibromomethane	ND	1500	ug/L
1,2-Dichlorobenzene	ND	1500	ug/L
1,3-Dichlorobenzene	ND	1500	ug/L
1,4-Dichlorobenzene	ND	1500	ug/L
Dichlorodifluoromethane	ND	1500	ug/L
1,1-Dichloroethane	ND	1500	ug/L
1,2-Dichloroethane	ND	1500	ug/L
1,1-Dichloroethene	ND	1500	ug/L
cis-1,2-Dichloroethene	ND	1500	ug/L
trans-1,2-Dichloroethene	ND	1500	ug/L
1,2-Dichloropropane	ND	1500	ug/L
1,3-Dichloropropane	ND	1500	ug/L
2,2-Dichloropropane	ND	1500	ug/L
1,1-Dichloropropene	ND	1500	ug/L
Ethylbenzene	ND	1500	ug/L
Hexachlorobutadiene	ND	1500	ug/L
Isopropylbenzene	ND	1500	ug/L
p-Isopropyltoluene	ND	1500	ug/L

(Continued on next page)

CONOCO

Client Sample ID: MW-3

## GC/MS Volatiles

Lot-Sample #....: B0I300142-003 Work Order #....: DLCTQ101 Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Methylene chloride	ND	3000	ug/L
Naphthalene	ND	1500	ug/L
n-Propylbenzene	ND	1500	ug/L
Styrene	ND	1500	ug/L
1,1,1,2-Tetrachloroethane	ND	1500	ug/L
1,1,2,2-Tetrachloroethane	ND	1500	ug/L
Tetrachloroethene	ND	1500	ug/L
Toluene	5000	1500	ug/L
1,2,3-Trichlorobenzene	ND	1500	ug/L
1,2,4-Trichloro- benzene	ND	1500	ug/L
1,1,1-Trichloroethane	ND	1500	ug/L
1,1,2-Trichloroethane	ND	1500	ug/L
Trichloroethene	ND	1500	ug/L
Trichlorofluoromethane	ND	1500	ug/L
1,2,3-Trichloropropane	ND	1500	ug/L
1,2,4-Trimethylbenzene	ND	1500	ug/L
1,3,5-Trimethylbenzene	ND	1500	ug/L
Vinyl chloride	ND	1500	ug/L
o-Xylene	ND	1500	ug/L
m-Xylene & p-Xylene	ND	1500	ug/L
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	
Bromofluorobenzene	99	(80 - 120)	
1,2-Dichloroethane-d4	103	(77 - 131)	
Toluene-d8	102	(80 - 120)	
Dibromofluoromethane	103	(80 - 125)	

## CONOCO

Client Sample ID: MW-3

## GC/MS Semivolatiles

Lot-Sample #....: B0I300142-003      Work Order #....: DLCTQ102      Matrix.....: WATER  
 Date Sampled....: 09/28/00      Date Received...: 09/30/00  
 Prep Date.....: 10/02/00      Analysis Date...: 10/03/00  
 Prep Batch #....: 0276511  
 Dilution Factor: 1      Initial Wgt/Vol: 1000 mL      Final Wgt/Vol.: 1 mL  
 Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Anthracene	ND	10	ug/L
Benzo(a)anthracene	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
bis(2-Chloroethoxy) methane	ND	10	ug/L
bis(2-Chloroethyl)- ether	ND	10	ug/L
bis(2-Chloroisopropyl) ether	ND	10	ug/L
bis(2-Ethylhexyl) phthalate	ND	10	ug/L
4-Bromophenyl phenyl ether	ND	10	ug/L
Butyl benzyl phthalate	ND	10	ug/L
Carbazole	ND	10	ug/L
4-Chloroaniline	ND	10	ug/L
4-Chloro-3-methylphenol	ND	10	ug/L
2-Chloronaphthalene	ND	10	ug/L
2-Chlorophenol	ND	10	ug/L
4-Chlorophenyl phenyl ether	ND	10	ug/L
Chrysene	ND	10	ug/L
Dibenz(a,h)anthracene	ND	10	ug/L
Dibenzofuran	ND	10	ug/L
Di-n-butyl phthalate	ND	10	ug/L
1,2-Dichlorobenzene	ND	10	ug/L
1,3-Dichlorobenzene	ND	10	ug/L
1,4-Dichlorobenzene	ND	10	ug/L
3,3'-Dichlorobenzidine	ND	50	ug/L
2,4-Dichlorophenol	ND	10	ug/L
Diethyl phthalate	ND	10	ug/L
2,4-Dimethylphenol	ND	10	ug/L
Dimethyl phthalate	ND	10	ug/L

(Continued on next page)

CONOCO

Client Sample ID: MW-3

## GC/MS Semivolatiles

Lot-Sample #...: B01300142-003 Work Order #...: DLCTQ102 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
4,6-Dinitro-	ND	50	ug/L
2-methylphenol			
2,4-Dinitrophenol	ND	50	ug/L
2,4-Dinitrotoluene	ND	10	ug/L
2,6-Dinitrotoluene	ND	10	ug/L
Di-n-octyl phthalate	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Fluorene	ND	10	ug/L
Hexachlorobenzene	ND	10	ug/L
Hexachlorobutadiene	ND	10	ug/L
Hexachlorocyclopenta- diene	ND	10	ug/L
Hexachloroethane	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
Isophorone	ND	10	ug/L
<b>2-Methylnaphthalene</b>	<b>53</b>	<b>10</b>	<b>ug/L</b>
2-Methylphenol	ND	10	ug/L
3-Methylphenol & 4-Methylphenol	ND	20	ug/L
<b>Naphthalene</b>	<b>34</b>	<b>10</b>	<b>ug/L</b>
2-Nitroaniline	ND	50	ug/L
3-Nitroaniline	ND	50	ug/L
4-Nitroaniline	ND	50	ug/L
Nitrobenzene	ND	10	ug/L
2-Nitrophenol	ND	10	ug/L
4-Nitrophenol	ND	50	ug/L
N-Nitrosodiphenylamine	ND	10	ug/L
N-Nitrosodi-n-propyl- amine	ND	10	ug/L
Pentachlorophenol	ND	50	ug/L
Phenanthrene	ND	10	ug/L
<b>Phenol</b>	<b>40</b>	<b>10</b>	<b>ug/L</b>
Pyrene	ND	10	ug/L
1,2,4-Trichloro- benzene	ND	10	ug/L
2,4,5-Trichloro- phenol	ND	10	ug/L
2,4,6-Trichloro- phenol	ND	10	ug/L

(Continued on next page)

CONOCO

Client Sample ID: MW-3

GC/MS Semivolatiles

Lot-Sample #....: B0I300142-003 Work Order #....: DLCTQ102 Matrix.....: WATER

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2,4,6-Tribromophenol	126 *	(30 - 120)
2-Fluorobiphenyl	90	(28 - 120)
2-Fluorophenol	39	(10 - 120)
Nitrobenzene-d5	89	(30 - 120)
Phenol-d5	29	(10 - 120)
Terphenyl-d14	107	(17 - 120)

NOTE (S) :

\* Surrogate recovery is outside stated control limits.

**CONOCO**

**Client Sample ID: MW-3**

### TOTAL Metals

**Lot-Sample #....:** B01300142-003  
**Date Sampled....:** 09/28/00

**Matrix.....: WATER**

Date Received...: 09/30/00

## CONOCO

Client Sample ID: MW-3

## General Chemistry

**Lot-Sample #....:** B0I300142-003    **Work Order #....:** DLCTQ    **Matrix.....:** WATER  
**Date Sampled....:** 09/28/00    **Date Received...:** 09/30/00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (liquid)	7.3	0.10	No Units	MCAWW 150.1 Dilution Factor: 1	Initial Wgt/Vol: 09/30/00	Final Wgt/Vol...: 0 0276315
Alkalinity as CaCO <sub>3</sub> to pH 4.5	383	5.0	mg/L	MCAWW 310.1 Dilution Factor: 1	Initial Wgt/Vol: 50 mL 10/02/00	Final Wgt/Vol...: 0 0276281
Bicarbonate Alkalinity	382	5.0	mg/L	MCAWW 310.1 Dilution Factor: 1	Initial Wgt/Vol: 50 mL 10/02/00	Final Wgt/Vol...: 0 0276294
Carbonate Alkalinity	ND	5.0	mg/L	MCAWW 310.1 Dilution Factor: 1	Initial Wgt/Vol: 50 mL 10/02/00	Final Wgt/Vol...: 0 0276296
Chloride	554	20.0	mg/L	MCAWW 300.0A Dilution Factor: 20	Initial Wgt/Vol: 10 mL 10/02-10/03/00	0277169
Fluoride	0.15	0.10	mg/L	MCAWW 340.2 Dilution Factor: 1	Initial Wgt/Vol: 50 mL 10/11/00	Final Wgt/Vol...: 0 0285184
Nitrate as N	ND	5.0	mg/L	MCAWW 300.0A Dilution Factor: 10	Initial Wgt/Vol: 10 mL 09/30/00	Final Wgt/Vol...: 0 0276188
Specific Conductance	2530	2.0	umhos/cm	MCAWW 120.1 Dilution Factor: 2	Initial Wgt/Vol: 50 mL 10/05/00	Final Wgt/Vol...: 0 0280128
Sulfate	67.8	10.0	mg/L	MCAWW 300.0A Dilution Factor: 10	Initial Wgt/Vol: 10 mL 09/30/00	Final Wgt/Vol...: 0 0276189
Total Dissolved Solids	1520	10.0	mg/L	MCAWW 160.1 Dilution Factor: 1	Initial Wgt/Vol: 100 mL 10/04-10/05/00	0283153

## CONOCO

Client Sample ID: MW-4

## GC/MS Volatiles

Lot-Sample #....: B0I300142-004    Work Order #....: DLCTT101    Matrix.....: WATER  
 Date Sampled...: 09/28/00    Date Received...: 09/30/00  
 Prep Date.....: 10/06/00    Analysis Date...: 10/06/00  
 Prep Batch #...: 0280385  
 Dilution Factor: 1    Initial Wgt/Vol: 25 mL    Final Wgt/Vol...: 25 mL  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	350 E	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromochloromethane	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
n-Butylbenzene	ND	1.0	ug/L
<b>sec-Butylbenzene</b>	<b>1.0</b>	<b>1.0</b>	<b>ug/L</b>
tert-Butylbenzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
<b>Ethylbenzene</b>	<b>26 E</b>	<b>1.0</b>	<b>ug/L</b>
Hexachlorobutadiene	ND	1.0	ug/L
<b>Isopropylbenzene</b>	<b>2.2</b>	<b>1.0</b>	<b>ug/L</b>
p-Isopropyltoluene	ND	1.0	ug/L

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## CONOCO

Client Sample ID: MW-4

## GC/MS Volatiles

Lot-Sample #...: B0I300142-004 Work Order #...: DLCTT101 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	2.0	ug/L
Naphthalene	1.4	1.0	ug/L
n-Propylbenzene	1.5	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	1.0	ug/L
1,2,4-Trichloro- benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,2,4-Trimethylbenzene	2.6	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
o-Xylene	ND	1.0	ug/L
m-Xylene & p-Xylene	8.6	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	101	(80 - 120)
1,2-Dichloroethane-d4	105	(77 - 131)
Toluene-d8	99	(80 - 120)
Dibromofluoromethane	101	(80 - 125)

## NOTE(S) :

E Estimated result. Result concentration exceeds the calibration range.

## CONOCO

Client Sample ID: MW-4

## GC/MS Volatiles

Lot-Sample #....: B01300142-004    Work Order #....: DLCTT201    Matrix.....: WATER  
Date Sampled...: 09/28/00    Date Received...: 09/30/00  
Prep Date.....: 10/06/00    Analysis Date...: 10/06/00  
Prep Batch #....: 0280385  
Dilution Factor: 50    Initial Wgt/Vol: 0.5 mL    Final Wgt/Vol...: 25 mL  
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	880	50	ug/L
Ethylbenzene	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	98	(80 - 120)
1,2-Dichloroethane-d4	102	(77 - 131)
Toluene-d8	101	(80 - 120)
Dibromofluoromethane	99	(80 - 125)

## CONOCO

Client Sample ID: MW-4

## GC/MS Semivolatiles

Lot-Sample #....: B0I300142-004    Work Order #....: DLCTT102    Matrix.....: WATER  
 Date Sampled...: 09/28/00    Date Received...: 09/30/00  
 Prep Date.....: 10/02/00    Analysis Date...: 10/03/00  
 Prep Batch #....: 0276511  
 Dilution Factor: 1    Initial Wgt/Vol: 1000 mL    Final Wgt/Vol...: 1 mL  
 Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Anthracene	ND	10	ug/L
Benzo(a)anthracene	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
bis(2-Chloroethoxy) methane	ND	10	ug/L
bis(2-Chloroethyl)- ether	ND	10	ug/L
bis(2-Chloroisopropyl) ether	ND	10	ug/L
bis(2-Ethylhexyl) phthalate	ND	10	ug/L
4-Bromophenyl phenyl ether	ND	10	ug/L
Butyl benzyl phthalate	ND	10	ug/L
Carbazole	ND	10	ug/L
4-Chloroaniline	ND	10	ug/L
4-Chloro-3-methylphenol	ND	10	ug/L
2-Chloronaphthalene	ND	10	ug/L
2-Chlorophenol	ND	10	ug/L
4-Chlorophenyl phenyl ether	ND	10	ug/L
Chrysene	ND	10	ug/L
Dibenz(a,h)anthracene	ND	10	ug/L
Dibenzofuran	ND	10	ug/L
Di-n-butyl phthalate	ND	10	ug/L
1,2-Dichlorobenzene	ND	10	ug/L
1,3-Dichlorobenzene	ND	10	ug/L
1,4-Dichlorobenzene	ND	10	ug/L
3,3'-Dichlorobenzidine	ND	50	ug/L
2,4-Dichlorophenol	ND	10	ug/L
Diethyl phthalate	ND	10	ug/L
2,4-Dimethylphenol	ND	10	ug/L
Dimethyl phthalate	ND	10	ug/L

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## CONOCO

Client Sample ID: MW-4

## GC/MS Semivolatiles

Lot-Sample #....: B0I300142-004 Work Order #....: DLCTT102 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
4,6-Dinitro-			
2-methylphenol	ND	50	ug/L
2,4-Dinitrophenol	ND	50	ug/L
2,4-Dinitrotoluene	ND	10	ug/L
2,6-Dinitrotoluene	ND	10	ug/L
Di-n-octyl phthalate	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Fluorene	ND	10	ug/L
Hexachlorobenzene	ND	10	ug/L
Hexachlorobutadiene	ND	10	ug/L
Hexachlorocyclopenta- diene	ND	10	ug/L
Hexachloroethane	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
Isophorone	ND	10	ug/L
2-Methylnaphthalene	ND	10	ug/L
2-Methylphenol	ND	10	ug/L
3-Methylphenol & 4-Methylphenol	ND	20	ug/L
Naphthalene	ND	10	ug/L
2-Nitroaniline	ND	50	ug/L
3-Nitroaniline	ND	50	ug/L
4-Nitroaniline	ND	50	ug/L
Nitrobenzene	ND	10	ug/L
2-Nitrophenol	ND	10	ug/L
4-Nitrophenol	ND	50	ug/L
N-Nitrosodiphenylamine	ND	10	ug/L
N-Nitrosodi-n-propyl- amine	ND	10	ug/L
Pentachlorophenol	ND	50	ug/L
Phenanthrene	ND	10	ug/L
Phenol	ND	10	ug/L
Pyrene	ND	10	ug/L
1,2,4-Trichloro- benzene	ND	10	ug/L
2,4,5-Trichloro- phenol	ND	10	ug/L
2,4,6-Trichloro- phenol	ND	10	ug/L

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CONOCO

Client Sample ID: MW-4

GC/MS Semivolatiles

Lot-Sample #....: B0I300142-004 Work Order #....: DLCTT102 Matrix.....: WATER

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
2,4,6-Tribromophenol	121 *	(30 - 120)
2-Fluorobiphenyl	88	(28 - 120)
2-Fluorophenol	47	(10 - 120)
Nitrobenzene-d5	83	(30 - 120)
Phenol-d5	33	(10 - 120)
Terphenyl-d14	108	(17 - 120)

NOTE(S) :

\* Surrogate recovery is outside stated control limits.

**CONOCO**

**Client Sample ID: MW-4**

### TOTAL Metals

**Lot-Sample #....:** B01300142-004  
**Date Sampled....:** 09/28/00

**Matrix.....: WATER**

Date Received..: 09/30/00

## CONOCO

Client Sample ID: MW-4

## General Chemistry

Lot-Sample #....: B0I300142-004      Work Order #....: DLCTT      Matrix.....: WATER  
 Date Sampled....: 09/28/00      Date Received...: 09/30/00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (liquid)	7.3	0.10	No Units	MCAWW 150.1 Dilution Factor: 1	Initial Wgt/Vol: 09/30/00	Final Wgt/Vol...: 0 0276315
Alkalinity as CaCO <sub>3</sub> to pH 4.5	461	5.0	mg/L	MCAWW 310.1 Dilution Factor: 1	Initial Wgt/Vol: 50 mL 10/02/00	Final Wgt/Vol...: 0 0276281
Bicarbonate Alkalinity	460	5.0	mg/L	MCAWW 310.1 Dilution Factor: 1	Initial Wgt/Vol: 50 mL 10/02/00	Final Wgt/Vol...: 0 0276294
Carbonate Alkalinity ND		5.0	mg/L	MCAWW 310.1 Dilution Factor: 1	Initial Wgt/Vol: 50 mL 10/02/00	Final Wgt/Vol...: 0 0276296
Chloride	175	10.0	mg/L	MCAWW 300.0A Dilution Factor: 10	Initial Wgt/Vol: 10 mL 09/30/00	Final Wgt/Vol...: 0 0276186
Fluoride	0.20	0.10	mg/L	MCAWW 340.2 Dilution Factor: 1	Initial Wgt/Vol: 50 mL 10/11/00	Final Wgt/Vol...: 0 0285184
Nitrate as N	ND	5.0	mg/L	MCAWW 300.0A Dilution Factor: 10	Initial Wgt/Vol: 10 mL 09/30/00	Final Wgt/Vol...: 0 0276188
Specific Conductance	1570	2.0	umhos/cm	MCAWW 120.1 Dilution Factor: 2	Initial Wgt/Vol: 50 mL 10/05/00	Final Wgt/Vol...: 0 0280128
Sulfate	56.3	10.0	mg/L	MCAWW 300.0A Dilution Factor: 10	Initial Wgt/Vol: 10 mL 09/30/00	Final Wgt/Vol...: 0 0276189
Total Dissolved Solids	684	40.0	mg/L	MCAWW 160.1 Dilution Factor: 4	Initial Wgt/Vol: 100 mL 10/04-10/05/00	Final Wgt/Vol...: 0 0283153

## CONOCO

Client Sample ID: TRIP BLANK

## GC/MS Volatiles

Lot-Sample #....: B0I300142-005    Work Order #....: DLCTW101    Matrix.....: WATER  
 Date Sampled....: 09/28/00    Date Received...: 09/30/00  
 Prep Date.....: 10/06/00    Analysis Date...: 10/06/00  
 Prep Batch #....: 0280385  
 Dilution Factor: 1            Initial Wgt/Vol: 25 mL            Final Wgt/Vol.: 25 mL  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Bromochloromethane	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
p-Isopropyltoluene	ND	1.0	ug/L

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CONOCO

Client Sample ID: TRIP BLANK

**GC/MS Volatiles****Lot-Sample #....: B0I300142-005 Work Order #....: DLCTW101 Matrix.....: WATER**

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Methylene chloride	ND	2.0	ug/L
Naphthalene	ND	1.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	1.0	ug/L
1,2,4-Trichloro- benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
o-Xylene	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	1.0	ug/L
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	
Bromofluorobenzene	96	(80 - 120)	
1,2-Dichloroethane-d4	104	(77 - 131)	
Toluene-d8	100	(80 - 120)	
Dibromofluoromethane	104	(80 - 125)	

## METHOD BLANK REPORT

## GC/MS Volatiles

Client Lot #....: B0I300142  
 MB Lot-Sample #: BOJ060000-385

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

Work Order #....: DLP6D101

Matrix.....: WATER

Prep Date.....: 10/06/00  
 Prep Batch #: 0280385  
 Initial Wgt/Vol: 25 mL

Final Wgt/Vol.: 25 mL

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	2.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B

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## METHOD BLANK REPORT

## GC/MS Volatiles

Client Lot #...: B0I300142

Work Order #...: DLP6D101

Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	REPORTING		
		<u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro- benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	1.0	ug/L	SW846 8260B
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	RECOVERY		
		<u>LIMITS</u>		
Bromofluorobenzene	96	(80 - 120)		
1,2-Dichloroethane-d4	102	(77 - 131)		
Toluene-d8	101	(80 - 120)		
Dibromofluoromethane	101	(80 - 125)		

NOTE(S) :

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

**METHOD BLANK REPORT**

**GC/MS Volatiles**

Client Lot #...: B0I300142  
MB Lot-Sample #: B0J100000-160  
  
Analysis Date...: 10/09/00  
Dilution Factor: 1

Work Order #...: DLTKQ101  
  
Prep Date.....: 10/09/00  
Prep Batch #...: 0284160  
Initial Wgt/Vol: 25 mL

Matrix.....: WATER  
  
Final Wgt/Vol.: 25 mL

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloropropane	ND	2.0	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	2.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B

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## METHOD BLANK REPORT

## GC/MS Volatiles

Client Lot #....: B0I300142

Work Order #....: DLTKQ101

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro- benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	1.0	ug/L	SW846 8260B
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS		
Bromofluorobenzene	95	(80 - 120)		
1,2-Dichloroethane-d4	102	(77 - 131)		
Toluene-d8	102	(80 - 120)		
Dibromofluoromethane	101	(80 - 125)		

NOTE(S) :

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

## METHOD BLANK REPORT

## GC/MS Semivolatiles

Client Lot #....: B0I300142  
 MB Lot-Sample #: B0J020000-511  
 Analysis Date...: 10/03/00  
 Dilution Factor: 1

Work Order #....: DLEMX103  
 Prep Date.....: 10/02/00  
 Prep Batch #....: 0276511  
 Initial Wgt/Vol: 1000 mL

Matrix.....: WATER  
 Final Wgt/Vol.: 1 mL

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	METHOD
Acenaphthene	ND	10	ug/L	SW846 8270C
Acenaphthylene	ND	10	ug/L	SW846 8270C
Anthracene	ND	10	ug/L	SW846 8270C
Benzo(a)anthracene	ND	10	ug/L	SW846 8270C
Benzo(b)fluoranthene	ND	10	ug/L	SW846 8270C
Benzo(k)fluoranthene	ND	10	ug/L	SW846 8270C
Benzo(ghi)perylene	ND	10	ug/L	SW846 8270C
Benzo(a)pyrene	ND	10	ug/L	SW846 8270C
bis(2-Chloroethoxy) methane	ND	10	ug/L	SW846 8270C
bis(2-Chloroethyl)- ether	ND	10	ug/L	SW846 8270C
bis(2-Chloroisopropyl) ether	ND	10	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	ND	10	ug/L	SW846 8270C
4-Bromophenyl phenyl ether	ND	10	ug/L	SW846 8270C
Butyl benzyl phthalate	ND	10	ug/L	SW846 8270C
Carbazole	ND	10	ug/L	SW846 8270C
4-Chloroaniline	ND	10	ug/L	SW846 8270C
4-Chloro-3-methylphenol	ND	10	ug/L	SW846 8270C
2-Chloronaphthalene	ND	10	ug/L	SW846 8270C
2-Chlorophenol	ND	10	ug/L	SW846 8270C
4-Chlorophenyl phenyl ether	ND	10	ug/L	SW846 8270C
Chrysene	ND	10	ug/L	SW846 8270C
Dibenz(a,h)anthracene	ND	10	ug/L	SW846 8270C
Dibenzofuran	ND	10	ug/L	SW846 8270C
Di-n-butyl phthalate	ND	10	ug/L	SW846 8270C
1,2-Dichlorobenzene	ND	10	ug/L	SW846 8270C
1,3-Dichlorobenzene	ND	10	ug/L	SW846 8270C
1,4-Dichlorobenzene	ND	10	ug/L	SW846 8270C
3,3'-Dichlorobenzidine	ND	50	ug/L	SW846 8270C
2,4-Dichlorophenol	ND	10	ug/L	SW846 8270C
Diethyl phthalate	ND	10	ug/L	SW846 8270C
2,4-Dimethylphenol	ND	10	ug/L	SW846 8270C
Dimethyl phthalate	ND	10	ug/L	SW846 8270C
4,6-Dinitro- 2-methylphenol	ND	50	ug/L	SW846 8270C
2,4-Dinitrophenol	ND	50	ug/L	SW846 8270C

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## METHOD BLANK REPORT

## GC/MS Semivolatiles

Client Lot #....: B0I300142

Work Order #....: DLEMX103

Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
2,4-Dinitrotoluene	ND	10	ug/L	SW846 8270C
2,6-Dinitrotoluene	ND	10	ug/L	SW846 8270C
Di-n-octyl phthalate	ND	10	ug/L	SW846 8270C
Fluoranthene	ND	10	ug/L	SW846 8270C
Fluorene	ND	10	ug/L	SW846 8270C
Hexachlorobenzene	ND	10	ug/L	SW846 8270C
Hexachlorobutadiene	ND	10	ug/L	SW846 8270C
Hexachlorocyclopenta-diene	ND	10	ug/L	SW846 8270C
Hexachloroethane	ND	10	ug/L	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	SW846 8270C
Isophorone	ND	10	ug/L	SW846 8270C
2-Methylnaphthalene	ND	10	ug/L	SW846 8270C
2-Methylphenol	ND	10	ug/L	SW846 8270C
3-Methylphenol & 4-Methylphenol	ND	20	ug/L	SW846 8270C
Naphthalene	ND	10	ug/L	SW846 8270C
2-Nitroaniline	ND	50	ug/L	SW846 8270C
3-Nitroaniline	ND	50	ug/L	SW846 8270C
4-Nitroaniline	ND	50	ug/L	SW846 8270C
Nitrobenzene	ND	10	ug/L	SW846 8270C
2-Nitrophenol	ND	10	ug/L	SW846 8270C
4-Nitrophenol	ND	50	ug/L	SW846 8270C
N-Nitrosodiphenylamine	ND	10	ug/L	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	10	ug/L	SW846 8270C
Pentachlorophenol	ND	50	ug/L	SW846 8270C
Phenanthrene	ND	10	ug/L	SW846 8270C
Phenol	ND	10	ug/L	SW846 8270C
Pyrene	ND	10	ug/L	SW846 8270C
1,2,4-Trichlorobenzene	ND	10	ug/L	SW846 8270C
2,4,5-Trichlorophenol	ND	10	ug/L	SW846 8270C
2,4,6-Trichlorophenol	ND	10	ug/L	SW846 8270C

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2,4,6-Tribromophenol	72	(30 - 120)
2-Fluorobiphenyl	60	(28 - 120)
2-Fluorophenol	37	(10 - 120)
Nitrobenzene-d5	66	(30 - 120)
Phenol-d5	27	(10 - 120)
Terphenyl-d14	80	(17 - 120)

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**METHOD BLANK REPORT**

**GC/MS Semivolatiles**

**Client Lot #....:** B0I300142

**Work Order #....:** DLEMX103

**Matrix.....:** WATER

**NOTE(S) :**

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

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## METHOD BLANK REPORT

## TOTAL Metals

Client Lot #...: B0I300142

Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
<b>MB Lot-Sample #: B0J110000-321 Prep Batch #...: 0285321</b>						
Mercury	ND	0.20	ug/L	SW846 7470A Dilution Factor: 1	Initial Wgt/Vol: 0	10/11/00 Final Wgt/Vol.: 0
<b>MB Lot-Sample #: B0J110000-329 Prep Batch #...: 0285329</b>						
Arsenic	ND	0.0050	mg/L	SW846 6010B Dilution Factor: 1	Initial Wgt/Vol: 0	10/11/00 Final Wgt/Vol.: 0
Lead	ND	0.0030	mg/L	SW846 6010B Dilution Factor: 1	Initial Wgt/Vol: 0	10/11/00 Final Wgt/Vol.: 0
Barium	ND	0.10	mg/L	SW846 6010B Dilution Factor: 1	Initial Wgt/Vol: 0	10/11/00 Final Wgt/Vol.: 0
Selenium	ND	0.0050	mg/L	SW846 6010B Dilution Factor: 1	Initial Wgt/Vol: 0	10/11/00 Final Wgt/Vol.: 0
Cadmium	ND	0.0050	mg/L	SW846 6010B Dilution Factor: 1	Initial Wgt/Vol: 0	10/11/00 Final Wgt/Vol.: 0
Chromium	ND	0.010	mg/L	SW846 6010B Dilution Factor: 1	Initial Wgt/Vol: 0	10/11/00 Final Wgt/Vol.: 0
Silver	ND	0.010	mg/L	SW846 6010B Dilution Factor: 1	Initial Wgt/Vol: 0	10/11/00 Final Wgt/Vol.: 0

NOTE(S) :

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

## METHOD BLANK REPORT

## General Chemistry

Client Lot #....: B0I300142

Matrix.....: WATER

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
		LIMIT	UNITS				
Alkalinity as CaCO <sub>3</sub> to pH	ND	Work Order #: DLE1D101	MB Lot-Sample #:	MCAWW 310.1	B0J020000-281	10/02/00	0276281
		5.0	mg/L	Dilution Factor: 1	Initial Wgt/Vol: 50 mL	Final Wgt/Vol...: 0	
Chloride	ND	Work Order #: DLGK6101	MB Lot-Sample #:	MCAWW 300.0A	B0J020000-186	09/30/00	0276186
		1.0	mg/L	Dilution Factor: 1	Initial Wgt/Vol: 10 mL	Final Wgt/Vol...: 0	
Chloride	ND	Work Order #: DLET4101	MB Lot-Sample #:	MCAWW 300.0A	B0J030000-169	10/02/00	0277169
		1.0	mg/L	Dilution Factor: 1	Initial Wgt/Vol: 10 mL	Final Wgt/Vol...: 0	
Fluoride	ND	Work Order #: DLWQQ101	MB Lot-Sample #:	MCAWW 340.2	B0J110000-184	10/11/00	0285184
		0.10	mg/L	Dilution Factor: 1	Initial Wgt/Vol: 50 mL	Final Wgt/Vol...: 0	
Nitrate as N	ND	Work Order #: DLGK7101	MB Lot-Sample #:	MCAWW 300.0A	B0J020000-188	09/30/00	0276188
		0.50	mg/L	Dilution Factor: 1	Initial Wgt/Vol: 10 mL	Final Wgt/Vol...: 0	
Specific Conductance	ND	Work Order #: DLMAJ101	MB Lot-Sample #:	MCAWW 120.1	B0J060000-128	10/05/00	0280128
		1.0	umhos/cm	Dilution Factor: 1	Initial Wgt/Vol: 50 mL	Final Wgt/Vol...: 0	
Sulfate	ND	Work Order #: DLGK8101	MB Lot-Sample #:	MCAWW 300.0A	B0J020000-189	09/30/00	0276189
		1.0	mg/L	Dilution Factor: 1	Initial Wgt/Vol: 10 mL	Final Wgt/Vol...: 0	
Total Dissolved Solids		Work Order #: DLR4H101	MB Lot-Sample #:	MCAWW 160.1	B0J090000-153		
	ND	10.0	mg/L	Dilution Factor: 1	Initial Wgt/Vol: 100 mL	10/04-10/05/00	0283153

**NOTE(S) :**

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

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC/MS Volatiles

**Client Lot #....:** B0I300142      **Work Order #....:** DLP6D102      **Matrix.....:** WATER  
**LCS Lot-Sample#:** B0J060000-385  
**Prep Date.....:** 10/06/00      **Analysis Date...:** 10/06/00  
**Prep Batch #....:** 0280385  
**Dilution Factor:** 1      **Final Wgt/Vol..:** 25 mL  
**Initial Wgt/Vol:** 25 mL

<u>PARAMETER</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>METHOD</u>
	<u>RECOVERY</u>	<u>LIMITS</u>	
Benzene	99	(75 - 120)	SW846 8260B
Chlorobenzene	97	(74 - 120)	SW846 8260B
1,1-Dichloroethene	102	(71 - 120)	SW846 8260B
Toluene	98	(61 - 130)	SW846 8260B
Trichloroethene	97	(71 - 120)	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Bromofluorobenzene	102	(80 - 120)
1,2-Dichloroethane-d4	104	(77 - 131)
Toluene-d8	103	(80 - 120)
Dibromofluoromethane	103	(80 - 125)

NOTE(S) :

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

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC/MS Volatiles

Client Lot #....: B0I300142      Work Order #....: DLTKQ102-LCS      Matrix.....: WATER  
 LCS Lot-Sample#: B0J100000-160      DLTKQ103-LCSD  
 Prep Date.....: 10/09/00      Analysis Date...: 10/09/00  
 Prep Batch #...: 0284160  
 Dilution Factor: 1      Final Wgt/Vol...: 25 mL  
 Initial Wgt/Vol: 25 mL

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>LIMITS</u>	<u>METHOD</u>
Benzene	92	(75 - 120)			SW846 8260B
	92	(75 - 120)	0.19	(0-24)	SW846 8260B
Chlorobenzene	90	(74 - 120)			SW846 8260B
	90	(74 - 120)	0.11	(0-22)	SW846 8260B
1,1-Dichloroethene	99	(71 - 120)			SW846 8260B
	95	(71 - 120)	3.7	(0-27)	SW846 8260B
Toluene	91	(61 - 130)			SW846 8260B
	91	(61 - 130)	0.35	(0-23)	SW846 8260B
Trichloroethene	90	(71 - 120)			SW846 8260B
	90	(71 - 120)	0.51	(0-22)	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Bromofluorobenzene	103	(80 - 120)
	101	(80 - 120)
1,2-Dichloroethane-d4	103	(77 - 131)
	103	(77 - 131)
Toluene-d8	105	(80 - 120)
	105	(80 - 120)
Dibromofluoromethane	103	(80 - 125)
	104	(80 - 125)

NOTE (S) :

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

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC/MS Semivolatiles

Client Lot #....: B0I300142      Work Order #....: DLEMX102      Matrix.....: WATER  
 LCS Lot-Sample#: B0J020000-511  
 Prep Date.....: 10/02/00      Analysis Date...: 10/03/00  
 Prep Batch #...: 0276511  
 Dilution Factor: 1      Final Wgt/Vol...: 1 mL  
 Initial Wgt/Vol: 1000 mL

<u>PARAMETER</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>METHOD</u>
	<u>RECOVERY</u>	<u>LIMITS</u>	
Acenaphthene	64	(48 - 120)	SW846 8270C
4-Chloro-3-methylphenol	69	(47 - 120)	SW846 8270C
2-Chlorophenol	51	(37 - 120)	SW846 8270C
1,4-Dichlorobenzene	47	(36 - 120)	SW846 8270C
2,4-Dinitrotoluene	67	(50 - 121)	SW846 8270C
4-Nitrophenol	38	(21 - 120)	SW846 8270C
N-Nitrosodi-n-propyl- amine	60	(42 - 120)	SW846 8270C
Pentachlorophenol	74	(41 - 120)	SW846 8270C
Phenol	30	(14 - 120)	SW846 8270C
Pyrene	83	(51 - 120)	SW846 8270C
1,2,4-Trichloro- benzene	52	(38 - 120)	SW846 8270C

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
2,4,6-Tribromophenol	83	(30 - 120)
2-Fluorobiphenyl	65	(28 - 120)
2-Fluorophenol	38	(10 - 120)
Nitrobenzene-d5	60	(30 - 120)
Phenol-d5	28	(10 - 120)
Terphenyl-d14	84	(17 - 120)

NOTE(S) :

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

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## TOTAL Metals

Client Lot #....: B0I300142

Matrix.....: WATER

<u>PARAMETER</u>	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION- <u>ANALYSIS DATE</u>	WORK ORDER #
LCS Lot-Sample#:	B0J110000-321	Prep Batch #....: 0285321			
Mercury	103	(90 - 110)	SW846 7470A	10/11/00	DLX8F102
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol...: 0
LCS Lot-Sample#:	B0J110000-329	Prep Batch #....: 0285329			
Arsenic	106	(85 - 115)	SW846 6010B	10/11/00	DLX96113
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol...: 0
Lead	111	(85 - 115)	SW846 6010B	10/11/00	DLX96114
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol...: 0
Selenium	102	(85 - 115)	SW846 6010B	10/11/00	DLX96115
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol...: 0
Barium	109	(85 - 115)	SW846 6010B	10/11/00	DLX96119
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol...: 0
Cadmium	107	(85 - 115)	SW846 6010B	10/11/00	DLX9611C
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol...: 0
Chromium	104	(85 - 115)	SW846 6010B	10/11/00	DLX9611E
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol...: 0
Silver	101	(85 - 115)	SW846 6010B	10/11/00	DLX9610X
		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.

**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

**General Chemistry**

**Lot-Sample #....: BOI300142**

**Matrix.....: WATER**

PARAMETER	PERCENT	RECOVERY	RPD	METHOD	PREPARATION-	PREP
	RECOVERY	LIMITS	RPD		ANALYSIS DATE	BATCH #
pH (liquid)			WO#:DLE4Q101-LCS/DLE4Q102-LCSD	LCS	Lot-Sample#: BOJ020000-315	
	100	(99 - 101)		MCAWW 150.1	09/30/00	0276315
	99	(99 - 101)	0.28 (0-20)	MCAWW 150.1	09/30/00	0276315
			Dilution Factor: 1	Initial Wgt/Vol:		Final Wgt/Vol...: 0
Alkalinity as CaCO <sub>3</sub> to pH		WO#:DLE1D102-LCS/DLE1D103-LCSD	LCS	Lot-Sample#: BOJ020000-281		
	101	(90 - 110)		MCAWW 310.1	10/02/00	0276281
	100	(90 - 110)	1.0 (0-20)	MCAWW 310.1	10/02/00	0276281
			Dilution Factor: 1	Initial Wgt/Vol: 50 mL		Final Wgt/Vol...: 0
Chloride		WO#:DLDK6102-LCS/DLDK6103-LCSD	LCS	Lot-Sample#: BOJ020000-186		
	95	(85 - 110)		MCAWW 300.0A	09/30/00	0276186
	95	(85 - 110)	0.21 (0-10)	MCAWW 300.0A	09/30/00	0276186
			Dilution Factor: 1	Initial Wgt/Vol: 10 mL		Final Wgt/Vol...: 0
Chloride		WO#:DLET4102-LCS/DLET4103-LCSD	LCS	Lot-Sample#: BOJ030000-169		
	95	(85 - 110)		MCAWW 300.0A	10/02/00	0277169
	95	(85 - 110)	0.20 (0-10)	MCAWW 300.0A	10/02/00	0277169
			Dilution Factor: 1	Initial Wgt/Vol: 10 mL		Final Wgt/Vol...: 0
Fluoride		WO#:DLWQQ102-LCS/DLWQQ103-LCSD	LCS	Lot-Sample#: BOJ110000-184		
	100	(90 - 110)		MCAWW 340.2	10/11/00	0285184
	102	(90 - 110)	2.0 (0-10)	MCAWW 340.2	10/11/00	0285184
			Dilution Factor: 1	Initial Wgt/Vol: 50 mL		Final Wgt/Vol...: 0
Nitrate as N		WO#:DLDK7102-LCS/DLDK7103-LCSD	LCS	Lot-Sample#: BOJ020000-188		
	97	(90 - 110)		MCAWW 300.0A	09/30/00	0276188
	97	(90 - 110)	0.0 (0-11)	MCAWW 300.0A	09/30/00	0276188
			Dilution Factor: 1	Initial Wgt/Vol: 10 mL		Final Wgt/Vol...: 0
Specific Conductance		WO#:DLMAJ102-LCS/DLMAJ103-LCSD	LCS	Lot-Sample#: BOJ060000-128		
	96	(90 - 110)		MCAWW 120.1	10/05/00	0280128
	99	(90 - 110)	3.4 (0-10)	MCAWW 120.1	10/05/00	0280128
			Dilution Factor: 1	Initial Wgt/Vol: 50 mL		Final Wgt/Vol...: 0
Sulfate		WO#:DLDK8102-LCS/DLDK8103-LCSD	LCS	Lot-Sample#: BOJ020000-189		
	98	(82 - 115)		MCAWW 300.0A	09/30/00	0276189
	98	(82 - 115)	0.20 (0-10)	MCAWW 300.0A	09/30/00	0276189
			Dilution Factor: 1	Initial Wgt/Vol: 10 mL		Final Wgt/Vol...: 0

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## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## General Chemistry

Lot-Sample #....: B0I300142

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD	LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Dissolved Solids		WO#:DLR4H102-LCS/DLR4H103-LCSD			LCS	Lot-Sample#: B0J090000-153		
	96	(80 - 114)			MCAWW 160.1		10/04-10/05/00	0283153
	95	(80 - 114)	2.0	(0-10)	MCAWW 160.1		10/04-10/05/00	0283153
		Dilution Factor: 1			Initial Wgt/Vol: 100 mL	Final Wgt/Vol.: 0		

NOTE(S) :

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

## MATRIX SPIKE SAMPLE EVALUATION REPORT

## GC/MS Volatiles

Client Lot #....: BOI300142      Work Order #....: DLD5E102-MS      Matrix.....: WATER  
 MS Lot-Sample #: BOI300180-001      DLD5E103-MSD  
 Date Sampled....: 09/29/00      Date Received...: 09/30/00  
 Prep Date.....: 10/06/00      Analysis Date...: 10/06/00  
 Prep Batch #....: 0280385  
 Dilution Factor: 1      Initial Wgt/Vol: 25 mL      Final Wgt/Vol.: 25 mL

<u>PARAMETER</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>RPD</u>	<u>LIMITS</u>	<u>METHOD</u>
Benzene	92	(75 - 120)			SW846 8260B
	94	(75 - 120)	1.9	(0-24)	SW846 8260B
Chlorobenzene	89	(74 - 120)			SW846 8260B
	93	(74 - 120)	3.8	(0-22)	SW846 8260B
1,1-Dichloroethene	98	(71 - 120)			SW846 8260B
	95	(71 - 120)	2.5	(0-27)	SW846 8260B
Toluene	90	(61 - 130)			SW846 8260B
	93	(61 - 130)	2.5	(0-23)	SW846 8260B
Trichloroethene	91	(71 - 120)			SW846 8260B
	92	(71 - 120)	0.50	(0-22)	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Bromofluorobenzene	103	(80 - 120)
	103	(80 - 120)
1,2-Dichloroethane-d4	102	(77 - 131)
	96	(77 - 131)
Toluene-d8	103	(80 - 120)
	104	(80 - 120)
Dibromofluoromethane	104	(80 - 125)
	100	(80 - 125)

NOTE(S) :

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #....: B0I300142      Work Order #....: DLCJG110-MS      Matrix.....: WATER  
 MS Lot-Sample #: B0I300109-001      DLCJG111-MSD  
 Date Sampled....: 09/28/00      Date Received...: 09/29/00  
 Prep Date.....: 10/02/00      Analysis Date...: 10/04/00  
 Prep Batch #....: 0276511  
 Dilution Factor: 1      Initial Wgt/Vol: 490 mL      Final Wgt/Vol.: 1 mL

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>LIMITS</u>	<u>METHOD</u>
Acenaphthene	84	(48 - 120)			SW846 8270C
	92	(48 - 120)			SW846 8270C
4-Chloro-3-methylphenol	96	(47 - 120)			SW846 8270C
	105	(47 - 120)	9.2	(0-34)	SW846 8270C
2-Chlorophenol	74	(37 - 120)			SW846 8270C
	82	(37 - 120)	9.7	(0-36)	SW846 8270C
1,4-Dichlorobenzene	69	(36 - 120)			SW846 8270C
	75	(36 - 120)	9.3	(0-28)	SW846 8270C
2,4-Dinitrotoluene	95	(50 - 121)			SW846 8270C
	99	(50 - 121)	4.1	(0-28)	SW846 8270C
4-Nitrophenol	58	(21 - 120)			SW846 8270C
	65	(21 - 120)	11	(0-40)	SW846 8270C
N-Nitrosodi-n-propyl-amine	85	(42 - 120)			SW846 8270C
	95	(42 - 120)	10	(0-34)	SW846 8270C
Pentachlorophenol	119	(41 - 120)			SW846 8270C
	129 a	(41 - 120)	8.8	(0-34)	SW846 8270C
Phenol	41	(14 - 120)			SW846 8270C
	48	(14 - 120)	13	(0-43)	SW846 8270C
Pyrene	107	(51 - 120)			SW846 8270C
	117	(51 - 120)	9.1	(0-27)	SW846 8270C
1,2,4-Trichlorobenzene	71	(38 - 120)			SW846 8270C
	80	(38 - 120)	11	(0-29)	SW846 8270C

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2,4,6-Tribromophenol	111	(30 - 120)
	122 *	(30 - 120)
2-Fluorobiphenyl	79	(28 - 120)
	88	(28 - 120)
2-Fluorophenol	51	(10 - 120)
	58	(10 - 120)
Nitrobenzene-d5	78	(30 - 120)
	86	(30 - 120)
Phenol-d5	37	(10 - 120)
	42	(10 - 120)

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #....: B0I300142      Work Order #....: DLCJG110-MS      Matrix.....: WATER  
MS Lot-Sample #: B0I300109-001                                    DLCJG111-MSD

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Terphenyl-d14	94	(17 - 120)
	107	(17 - 120)

**NOTE(S) :**

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

Bold print denotes control parameters

\* Surrogate recovery is outside stated control limits.

a Spiked analyte recovery is outside stated control limits.

**MATRIX SPIKE SAMPLE EVALUATION REPORT**

**TOTAL Metals**

**Client Lot #....:** B0I300142

**Matrix.....:** WATER

**Date Sampled....:** 09/27/00

**Date Received...:** 09/29/00

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>MS Lot-Sample #:</b> B0I290189-013 <b>Prep Batch #....:</b> 0285321							
Mercury	106	(66 - 128)		SW846 7470A		10/11/00	DL9E210R
	104	(66 - 128) 2.0 (0-17)		SW846 7470A		10/11/00	DL9E210T
Dilution Factor: 1 Initial Wgt/Vol: 0 Final Wgt/Vol.: 0							
<b>MS Lot-Sample #:</b> B0I290189-013 <b>Prep Batch #....:</b> 0285329							
Arsenic	105	(85 - 115)		SW846 6010B		10/11/00	DL9E211H
	105	(85 - 115) 0.64 (0-10)		SW846 6010B		10/11/00	DL9E211J
Dilution Factor: 1 Initial Wgt/Vol: 0 Final Wgt/Vol.: 0							
Lead	108	(85 - 115)		SW846 6010B		10/11/00	DL9E211K
	110	(85 - 115) 2.7 (0-10)		SW846 6010B		10/11/00	DL9E211L
Dilution Factor: 1 Initial Wgt/Vol: 0 Final Wgt/Vol.: 0							
Barium	109	(85 - 115)		SW846 6010B		10/11/00	DL9E211W
	108	(85 - 115) 1.0 (0-10)		SW846 6010B		10/11/00	DL9E211X
Dilution Factor: 1 Initial Wgt/Vol: 0 Final Wgt/Vol.: 0							
Selenium	101	(85 - 115)		SW846 6010B		10/11/00	DL9E211M
	101	(85 - 115) 0.27 (0-10)		SW846 6010B		10/11/00	DL9E211N
Dilution Factor: 1 Initial Wgt/Vol: 0 Final Wgt/Vol.: 0							
Cadmium	105	(85 - 115)		SW846 6010B		10/11/00	DL9E2122
	107	(85 - 115) 1.4 (0-10)		SW846 6010B		10/11/00	DL9E2123
Dilution Factor: 1 Initial Wgt/Vol: 0 Final Wgt/Vol.: 0							
Chromium	102	(85 - 115)		SW846 6010B		10/11/00	DL9E2126
	104	(85 - 115) 1.3 (0-11)		SW846 6010B		10/11/00	DL9E2127
Dilution Factor: 1 Initial Wgt/Vol: 0 Final Wgt/Vol.: 0							
Silver	101	(85 - 115)		SW846 6010B		10/11/00	DL9E2118
	101	(85 - 115) 0.36 (0-13)		SW846 6010B		10/11/00	DL9E2119
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 #....: BOI300142

Matrix.....: WATER

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

Date Received...: 09/29/00

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RPD</u>	<u>PREPARATION-</u>	<u>PREP</u>
	<u>RECOVERY LIMITS</u>	<u>RPD LIMITS</u>	<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Alkalinity as CaCO <sub>3</sub> to pH	WO#: DLCTT11G-MS/DLCTT11H-MSD	MS Lot-Sample #: BOI300142-004		
100	(90 - 110)	MCAWW 310.1	10/02/00	0276281
101	(90 - 110) 0.18 (0-20)	MCAWW 310.1	10/02/00	0276281
	Dilution Factor: 1	Initial Wgt/Vol: 50 mL	Final Wgt/Vol.: 0	
Chloride	WO#: DLCKK118-MS/DLCKK119-MSD	MS Lot-Sample #: BOI300112-004		
87	(85 - 110)	MCAWW 300.0A	09/30/00	0276186
87	(85 - 110) 0.0 (0-10)	MCAWW 300.0A	09/30/00	0276186
	Dilution Factor: 5	Initial Wgt/Vol: 10 mL	Final Wgt/Vol.: 0	
Fluoride	WO#: DLCTT11K-MS/DLCTT11L-MSD	MS Lot-Sample #: BOI300142-004		
102	(90 - 110)	MCAWW 340.2	10/11/00	0285184
100	(90 - 110) 1.4 (0-10)	MCAWW 340.2	10/11/00	0285184
	Dilution Factor: 1	Initial Wgt/Vol: 50 mL	Final Wgt/Vol.: 0	
Nitrate as N	WO#: DLCKK116-MS/DLCKK117-MSD	MS Lot-Sample #: BOI300112-004		
89 N	(90 - 110)	MCAWW 300.0A	09/30/00	0276188
88 N	(90 - 110) 0.56 (0-11)	MCAWW 300.0A	09/30/00	0276188
	Dilution Factor: 1	Initial Wgt/Vol: 10 mL	Final Wgt/Vol.: 0	

NOTE (S) :

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

N Spiked analyte recovery is outside stated control limits.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: B0I300142

Work Order #....: DLCKR-SMP

Matrix.....: WATER

DLCKR-DUP

Date Sampled...: 09/29/00

Date Received..: 09/29/00

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u>	<u>RESULT</u>	<u>UNITS</u>	<u>RPD</u>	<u>RPD</u>	<u>LIMIT</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>	<u>ANALYSIS</u>	<u>DATE</u>	<u>BATCH</u> #	
pH (liquid)	7.0	7.0		No Units	0.0	(0-20)	MCAWW	150.1	SD Lot-Sample #:	B0I300112-008				
				Dilution Factor:	1			Initial Wgt/Vol:		09/30/00				0276315
														Final Wgt/Vol...: 0

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: B0I300142

Work Order #...: DLCTT-SMP

Matrix.....: WATER

DLCTT-DUP

Date Sampled...: 09/28/00

Date Received..: 09/30/00

PARAM	RESULT	DUPLICATE	UNITS	RPD	LIMIT	METHOD	PREPARATION-	PREP	ANALYSIS DATE	BATCH #
		RESULT					SD			
Total Dissolved Solids	684	684	mg/L	0.0	(0-10)	MCAWW 160.1	10/04-10/05/00	0283153		
			Dilution Factor: 4			Initial Wgt/Vol: 100 mL				Final Wgt/Vol...: 0

## SAMPLE DUPLICATE EVALUATION REPORT

## General Chemistry

Client Lot #....: B0I300142      Work Order #....: DLE8T-SMP      Matrix.....: WATER  
    DLE8T-DUP

Date Sampled...: 10/02/00      Date Received..: 10/02/00

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u>	<u>UNITS</u>	<u>RPD</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>'PREP</u>	
					LIMIT		<u>ANALYSIS</u>	<u>DATE</u>	<u>BATCH #</u>
Specific Conductance			umhos/cm	1.5	(0-10)	MCAWW 120.1	SD Lot-Sample #:	B0J020174-001	
	1120	1130			Dilution Factor: 1		Initial Wgt/Vol:	50 mL	10/05/00 0280128
									Final Wgt/Vol...: 0

# SEVERN TRENT LABS

## TAMPA LABORATORY CONDITION UPON RECEIPT FORM

Client (name or ID): Maxim

Project name: MAT Samar Gas Plant

Date received: 9/30/00

Lot number:

Received by: Carol McNulty

CUR completed by: Carol McNulty

### Cooler/Shipping Information:

Type:  Cooler  Box  Other (describe) \_\_\_\_\_

Cooler temperature: Identify the cooler and document the temperature blank or ice water measurement

Cooler ID/Track #					
Temp (°C)	<u>40</u>				
Cooler ID/Track #					
Temp (°C)	<u>40</u>				

### Other Information:

Any "NO" responses or discrepancies should be explained in the "Comments" section below. If an NCM was initiated, write the NCM number in the appropriate space.

#### CHECKLIST

YES NO NA NCM #

1. Were custody seals on shipping container(s) intact? Check "NA" if hand delivered. If "Yes," check one: <input type="checkbox"/> CUSTODY SEAL SAVED <input type="checkbox"/> UNABLE TO SAVE CUSTODY SEAL	X			
2. Were custody papers properly included with samples?	X			
3. Were custody papers properly filled out (ink, signed, match labels)?	X			
4. Did all bottles arrive in good condition (unbroken)?	X			
5. Were all bottle labels complete (sample #, date, signed, analysis, preservatives)?	X			
6. Were correct bottles used for the tests indicated?	X			
7. Were proper sample preservation techniques indicated?	X			
8. Were samples received within holding times? If "No," NCM required.	X			
9. Were all VOA bottles checked for the presence of air bubbles? If air bubbles were found, indicate in comment section.	X			
10. Were samples in direct contact with wet ice? If "No," check one: <input type="checkbox"/> NO ICE <input type="checkbox"/> BLUE ICE	X			
11. Were the samples received with a temperature blank? RECORD TEMPERATURE ABOVE If "No," check one: <input type="checkbox"/> Unable to determine temp <input type="checkbox"/> Taken from ice/water near samples	X			
12. Was the cooler temperature less than 6°C?	X			
13. Were sample pHs checked and recorded by Sample control? <i>NOTE: VOA samples are checked by laboratory analysts.</i>			X	
14. Were samples accepted into the laboratory?	X			

### Comments:

ADDED sample Date to mw-3, mw4 dependent Tension

Project Manager initials/date reviewed: 10-2-00 LCN

# Chain of Custody Record

QUA-4124 0797

Client

Maxim Technologies

Address

10401 Lomas NE Suite 106

City

Telephone Number (Area Code)/Fax Number

Project Manager

Date

Lab Number

Page

Chain of Custody Number

34557

Albuquerque, NM 87112

State Zip Code

Site Contact

Lab Contact

Carrier/Waybill Number

Majicawas Gas Plant

Contract/Purchase Order/Quote No.

Containers &amp; Preservatives

(A fee may be assessed if samples are retained longer than 3 months)

&lt;/div

***Chain of  
Custody Record***

QUA-4124 0797

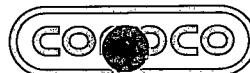
QUA-412

4 0797

nterra

Client Address		Main Technologies 10601 Lomas NE, Suite 104 Albuquerque NM 87112		Project Manager Name	Melode Ylinrey	Date	9/29/00	Chain of Custody Number 14-550
City	State	Zip Code	Sig. Contact	Telephone Number (Area Code)/Fax Number	505 - 237 8440	Lab Number		
Project Name			Carrier/Maybill Number			Page	1	or
Contract/Purchase Order/Quote No.		10-2-2		Matrix	Containers & Preservatives	Analysis (Attach list if more space is needed)		Special Instructions/ Conditions of Receipt
(Containers for each sample may be combined on one line)		Date	Time	Aqueous Sed. Soil	Unpres. H2SO4 HNOS HCl NaOH ZnAc/ NaOH	VOC SVOC RCRA metal major cations anions		
MW - 3		9/28/00	X	4	3	X		
MW - 4		9/28/00	X	4	3	X		
Trip blank			X			X		
Possible Hazard Identification		Sample Disposal		QC Requirements (Specify)		(A fee may be assessed if samples are retained longer than 3 months)		
<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison B	<input type="checkbox"/> Unknown	<input type="checkbox"/> Return To Client	<input type="checkbox"/> Disposal By Lab	<input type="checkbox"/> Archive For _____ Months	
Turn Around Time Required								
<input type="checkbox"/> 24 Hours	<input type="checkbox"/> 48 Hours	<input type="checkbox"/> 7 Days	<input type="checkbox"/> 14 Days	<input type="checkbox"/> 21 Days	<input type="checkbox"/> Other _____			
1. Relinquished By		Date	Time	1. Received By		Date	Time	
2. Relinquished By		Date	Time	2. Received By		Date	Time	
3. Relinquished By		Date	Time	3. Received By		Date	Time	

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



Joyce M. Woodfin  
Environmental Consultant  
Natural Gas & Gas Products

Conoco Inc  
Humber 3036  
P.O. Box 2197  
Houston, TX 77252-2197  
(281) 293-4498  
Fax: (281) 293-1214

June 5, 2000

JUN - 7 2000

Certified Mail: 7099 3220 0005 0587 1156  
Return Receipt Requested

Mr. Wayne Price  
NMEMNRD, Oil Conservation Division  
P.O. Box 6429  
Santa Fe, NM 87505-6429

**RE: Investigation Status, Conoco Maljamar Gas Plant**

Dear Mr. Price:

On April 27 and 28, 2000, Conoco Inc. (Conoco) conducted a subsurface investigation at the Maljamar Gas Plant, Maljamar, New Mexico. The investigation was within a bermed area where a condensate release of approximately 15 barrels occurred on February 13, 2000. Immediately following the release Conoco began excavation of the soils within the bermed area. During the removal of all freshly impacted soil, suspect hydrocarbon impacted soils from historical release(s) were encountered. The purpose of the investigation was to delineate the vertical and horizontal impact resulting from the historical release since we believe that impacted soil from the February spill was removed.

A total of five soil borings were drilled on the perimeter of the bermed area referenced in the above paragraph. The maximum drilling depth was 65 feet below ground surface (bgs) in boring B2. A sample was collected from boring B2 at a depth of 35 feet bgs, with a corresponding volatile organic vapor reading (PID) of 326 parts per million (ppm). Underlying the 35-foot bgs interval, a very tightly cemented, dry sandstone was encountered. As drilling continued, Conoco was unable to obtain split spoon samples from this sandstone due to the competency of the unit. However, we monitored the drill cuttings with the PID, and terminated drilling at 65 feet bgs when PID readings equilibrated at 15 ppm.

Following an assessment of the data gathered during the April 27-28<sup>th</sup> investigation, Conoco concluded that additional borings would be required to further delineate the horizontal impact resultant from the historical release.

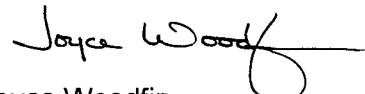
During the next drilling phase, Conoco will advance at least one boring to 100 feet bgs or groundwater, whichever is encountered first. The purpose of this boring will be to address concerns expressed by the OCD office regarding the occurrence of shallow

groundwater underlying the Maljamar facility. A work plan addressing the additional investigation will follow under separate cover.

Conoco has agreed to notify the OCD of the next scheduled drilling event at the Maljamar Gas Plant. This drilling is tentatively scheduled for June 21 through 23, 2000 and is contingent on availability of the drill rig and subsequent discussions with the OCD.

If you should have any questions, please feel free to contact me at 281-293-4498.

Sincerely,



Joyce Woodfin

cc: Marshall Honeyman - Maljamar  
John Skopak - RemediationTechnology  
Clyde Yancey - Maxim Technologies

File: ENV 216-9-4

# SOIL BORING LOG

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'						
5	SAND, tan, dry	5.0'-10.0'	0.0'-5.0'	C	0.9			5
10	SAND with gravel fragments, tan, dry	10.0'-20.0'	5.0'-10.0'	C	1.3			10
15			10.0'-15.0'	C	0.7			15
20	Boring terminated at 20.0'		15.0'-20.0'	C	0.6			20
25								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  
 AT COMPLETION  
 AFTER HOURS  
 SOIL SAMPLE SUBMITTED TO LAB

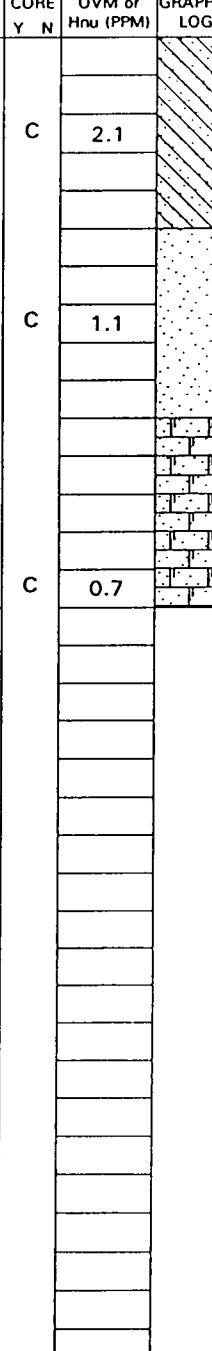
BOTTOM CAP  
 SAND PACK  
 BENTONITE SEAL

FACTORY - SLOTTED WELL SCREEN  
 WELL CASING  
 BENTONITE/CEMENT GROUT SEAL

# SOIL BORING LOG

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	DEPTH FEET		
5	SANDY SOIL, brown, dry	0.0'-5.0'	0.0'-5.0'	C						
	SAND, brown, dry	5.0'-10.0'	5.0'-10.0'				2.1			5
10	SAND and CALICHE, brown	10.0-15.0'	15.0'		1.1			10		
15	Boring terminated at 15.0'				0.7			15		
20								20		
25								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  
 AT COMPLETION  
 AFTER HOURS  
 SOIL SAMPLE SUBMITTED TO LAB

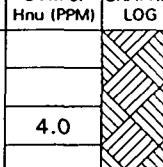
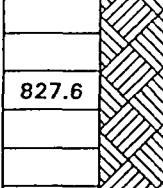
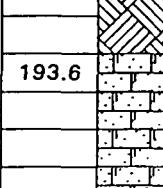
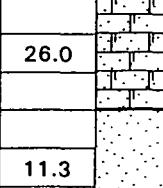
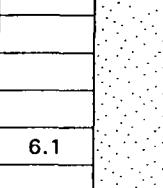
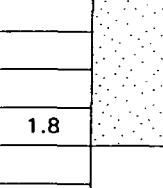
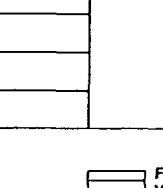
BOTTOM CAP  
 SAND PACK  
 BENTONITE SEAL

FACTORY - SLOTTED WELL SCREEN  
 WELL CASING  
 BENTONITE/CEMENT GROUT SEAL

# SOIL BORING LOG

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
5	SOIL, dark brown, moist, odor -oily black soil	0.0'-11.0'	0.0'-5.0'	C	4.0			5
10	CALICHE, tan, moist, odor	11.0-12.0'	10.0-12.0'	SS	193.6			10
15	SILTY CALICHE, tan, moist, odor	12.0-18.0'		SS	827.6			15
20	SAND, tan, moist	18.0-30.0'	18.0-20.0'	SS	26.0			20
25			25.0'	C	11.3			25
30	Boring terminated at 30.0'		30.0'	C	6.1			30
35					1.8			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

 BOTTOM CAP  
 SAND PACK  
 BENTONITE SEAL

 FACTORY - SLOTTED WELL SCREEN  
 WELL CASING  
 BENTONITE/CEMENT GROUT SEAL

# SOIL BORING LOG

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 Y N	OVM or Hnu (PPM)	GRAPHIC LOG	WELL DESIGN	DEPTH FEET
5	SOIL, dark brown, moist -black stained soil from 3.0'-15.5'	0.0'-15.5'	0.0'-3.0'	C	32.5			5
10			5.0'-7.0'	SS	977.2			10
15			10.0'-12.0'	SS	313.4			15
20	CLAYEY SAND, tan, moist, odor	15.5-20.0'	15.0-17.0'	SS	140.1			20
25	SILTY SAND, dark brown, moist	20.0-22.0'	20.0-22.0'	SS	78.5			25
25	SAND, brown, moist	22.0-25.0'		C	15.8			25
30	SAND, brown, moist, no odor	25.0-30.0'	25.0'	C	3.3			30
35	Boring terminated at 30.0'							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

BOTTOM CAP  
 SAND PACK  
 BENTONITE SEAL

FACTORY - SLOTTED WELL SCREEN  
 WELL CASING  
 BENTONITE/CEMENT GROUT SEAL

# SOIL BORING LOG

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:  
 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

DEPTH FEET	SOIL DESCRIPTION	DESCRIPTION INTERVAL	SAMPLE INTERVAL	CORE Y N	OVM or Hru (PPM)	GRAPHIC LOG	WELL DESIGN	DEPTH FEET
5	SILTY SAND, tan, no odor	0.0'-5.0'	0.0'-2.0'	C	1.2			5
10	SILTY SAND, orange, fine-grained, no odor	5.0'-10.0'	5.0'-7.0'	SS	0.8			10
15	SILTY SAND, tan, fine-grained, some caliche	10.0'-15.0'	10.0'-12.0'	SS	1.0			15
	SILTY SAND, tan, fine-grained	15.0'-17.0'	15.0'-17.0'	SS	1.1			
20	Boring terminated at 17.0'							20
25								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  
 AT COMPLETION  
 AFTER HOURS  
 SOIL SAMPLE SUBMITTED TO LAB

BOTTOM CAP  
 SAND PACK  
 BENTONITE SEAL

FACTORY - SLOTTED WELL SCREEN  
 WELL CASING  
 BENTONITE/CEMENT GROUT SEAL

## **SOIL BORING LOG**

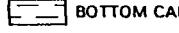
BORING/WELL #: B-9  
PROJECT NO.: 2007207  
LOCATION: MALJAMAR, NEW MEXICO  
TOTAL DEPTH: 17.0'  
SURFACE ELEV:  
SCREEN: DIA: LENGTH: SIZE:  
CASING: DIA: LENGTH: TYPE:  
DRILLING METHOD(S):

**CLIENT:** CONOCO, INC.  
**PROJECT:** MALJAMAR GAS PLANT  
**WATER LEVEL:** INITIAL: N/A      24 HOURS: N/A  
**BORE HOLE DIAMETER:**  
**DRILLING COMPANY:** HARRISON & COOPER  
**DATE DRILLED:** 10/28/00  
**DRILLER:**  
**OVERSIGHT:** C. YANCEY

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

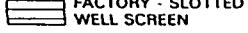
**WATER LEVEL**  
**AT COMPLETION**  
**AFTER HOURS**  
**SOIL SAMPLE**  
**SUBMITTED TO LAB**



**BOTTOM CAP**



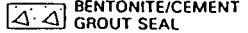
SAND PACK



#### **FACTORY-SLOTTED WELL SCREEN**



## WELL CASING



## BENTONITE/CEMENT GROUT SEAL

# SOIL BORING LOG

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

DEPTH FEET	SOIL DESCRIPTION	DESCRIPTION INTERVAL	SAMPLE INTERVAL	CORE Y N	OVM or Hnu (PPM)	GRAPHIC LOG	WELL DESIGN	DEPTH FEET
	SAND with intermixed silt, orange, no odor	0.0'-5.0'						
5	SILTY SAND, tan to orange, no odor	5.0'-10.0'	5.0'-7.0'	SS	0.7			5
10	SILTY SAND, tan, orange	10.0-17.0'	10.0-12.0'	SS	0.3			10
15				SS	0.1			15
20	Boring terminated at 17.0'							20
25								25
30								30
35								35

SS - DRIVEN SPLIT SPOON      HSA - HOLLOW STEM AUGER  
 ST - PRESSED SHELBY TUBE      CFA - CONTINUOUS FLIGHT AUGERS  
 RC - ROCK CORE      MD - MUD DRILLING  
 CT - 5 FT CONTINUOUS SAMPLER      AD - AIR DRILLING  
 NR - NO READINGS TAKEN      C - CUTTINGS

WATER LEVEL  
 AT COMPLETION  
 AFTER HOURS  
 SOIL SAMPLE SUBMITTED TO LAB

BOTTOM CAP  
 SAND PACK  
 BENTONITE SEAL

FACTORY - SLOTTED WELL SCREEN  
 WELL CASING  
 BENTONITE/CEMENT GROUT SEAL

## **ATTACHMENT B**

SEVERN  
TRENT  
SERVICES

STL Tampa East  
5910 Breckenridge Parkway  
Suite H  
Tampa, FL 33610-4236

Tel: 813 621 0784  
Fax: 813 623 6021  
[www.stl-inc.com](http://www.stl-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 Robertson  
Project Manager

October 13, 2000

## METHODS SUMMARY

B01300119

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 Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

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

# SAMPLE SUMMARY

BOI300119

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	B5	09/28/00	14:50
DLCN4	006	B6	09/28/00	14:45
DLCN6	007	SOIL COMP	09/28/00	
DLCN7	008	B7	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.

CONOCO

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  
Prep Date.....: 10/11/00    Analysis Date...: 10/11/00  
Prep Batch #....: 0286175  
Dilution Factor: 1              Initial Wgt/Vol: 5.59 g    Final Wgt/Vol.: 5 mL  
% Moisture.....: 5.5              Method.....: SW846 8260B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
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

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Bromofluorobenzene	83	(28 - 159)
1,2-Dichloroethane-d4	102	(51 - 168)
Toluene-d8	113	(66 - 152)
Dibromofluoromethane	103	(73 - 151)

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

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		
Prep Date.....:	09/30/00	Analysis Date...:	10/06/00		
Prep Batch #....:	0280279				
Dilution Factor:	1	Initial Wgt/Vol:	5.28 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	5.5	Method.....:	SW846 8015B		

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Gasoline Range Organics	ND	5.3	mg/kg
SURROGATE	PERCENT	RECOVERY	LIMITS
4-Bromofluorobenzene	RECOVERY 97	(39 - 163)	

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B1

GC Semivolatiles

Lot-Sample #....: B01300119-001    Work Order #....: DLCMW102    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: 30.4 g    Final Wgt/Vol...: 1 mL  
% Moisture.....: 5.5              Method.....: SW846 8015B

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
Diesel Range Organics	ND	11	mg/kg
SURROGATE	PERCENT	RECOVERY	
	RECOVERY	LIMITS	
Tetratriacontane	73	(25 - 113)	

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B1

## TOTAL Metals

Lot-Sample #....: BOI300119-001   Matrix.....: SOLID  
 Date Sampled....: 09/28/00   Date Received...: 09/30/00  
 % Moisture.....: 5.5

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>Prep Batch #....: 0285375</b>						
Mercury	ND	0.11	mg/kg	SW846 7471A Dilution Factor: 1	Initial Wgt/Vol: 0 10/11/00	DLCMW10C Final Wgt/Vol...: 0
<b>Prep Batch #....: 0285418</b>						
Arsenic	2.4	0.26	mg/kg	SW846 6010B Dilution Factor: 1	Initial Wgt/Vol: 0 10/11-10/12/00	DLCMW104 Final Wgt/Vol...: 0
Selenium	ND	1.3	mg/kg	SW846 6010B Dilution Factor: 5	Initial Wgt/Vol: 0 10/11-10/12/00	DLCMW106 Final Wgt/Vol...: 0
Lead	4.1	1.3	mg/kg	SW846 6010B Dilution Factor: 5	Initial Wgt/Vol: 0 10/11-10/12/00	DLCMW105 Final Wgt/Vol...: 0
Barium	122	5.3	mg/kg	SW846 6010B Dilution Factor: 1	Initial Wgt/Vol: 0 10/11-10/12/00	DLCMW107 Final Wgt/Vol...: 0
Cadmium	ND	0.53	mg/kg	SW846 6010B Dilution Factor: 1	Initial Wgt/Vol: 0 10/11-10/12/00	DLCMW108 Final Wgt/Vol...: 0
Chromium	5.4	5.3	mg/kg	SW846 6010B Dilution Factor: 5	Initial Wgt/Vol: 0 10/11-10/12/00	DLCMW109 Final Wgt/Vol...: 0
Silver	ND	1.1	mg/kg	SW846 6010B Dilution Factor: 1	Initial Wgt/Vol: 0 10/11-10/12/00	DLCMW10A Final Wgt/Vol...: 0

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B1

**General Chemistry**

**Lot-Sample #....:** B0I300119-001    **Work Order #....:** DLCMW    **Matrix.....:** SOLID  
**Date Sampled....:** 09/28/00    **Date Received...:** 09/30/00  
**% Moisture.....:** 5.5

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-		PREP BATCH #
					ANALYSIS DATE	DATE	
pH (solid)	9.0	0.10	No Units	SW846 9045A	09/30/00	09/30/00	0276317
		Dilution Factor: 1		Initial Wgt/Vol: 0		Final Wgt/Vol...: 0	
Chloride	ND	5.3	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276192	
		Dilution Factor: 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
		Dilution Factor: 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 Factor: 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	
		Dilution Factor: 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	
		Dilution Factor: 1		Initial Wgt/Vol: 10 g		Final Wgt/Vol...: 100 mL	

**NOTE(S) :**

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B2

GC/MS Volatiles

Lot-Sample #....: B01300119-002	Work Order #....: DLCN0101	Matrix.....: SOLID
Date Sampled....: 09/28/00	Date Received...: 09/30/00	
Prep Date.....: 10/11/00	Analysis Date...: 10/11/00	
Prep Batch #....: 0286175		
Dilution Factor: 1	Initial Wgt/Vol: 6.02 g	Final Wgt/Vol.: 5 mL
* Moisture.....: 13	Method.....: SW846 8260B	

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
Benzene	ND	5.8	ug/kg
Ethylbenzene	ND	5.8	ug/kg
Toluene	ND	5.8	ug/kg
Xylenes (total)	ND	5.8	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY	
		LIMITS	
Bromofluorobenzene	83	(28	- 159)
1,2-Dichloroethane-d4	102	(51	- 168)
Toluene-d8	115	(66	- 152)
Dibromofluoromethane	103	(73	- 151)

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

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

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Gasoline Range Organics	ND	5.8	mg/kg
<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>LIMITS</u>
4-Bromofluorobenzene	RECOVERY 93	(39 - 163)	

**NOTE(S) :**

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B2

GC Semivolatiles

Lot-Sample #....: B01300119-002	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	

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
Diesel Range Organics	ND	12	mg/kg
SURROGATE	PERCENT	RECOVERY	
	RECOVERY	LIMITS	
Tetratriacontane	76	(25 - 113)	

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B2

## TOTAL Metals

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

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

Date Received...: 09/30/00

Matrix.....: SOLID

% Moisture.....: 13

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>Prep Batch #....: 0285375</b>						
Mercury	ND	0.12	mg/kg	SW846 7471A	10/11/00	DLCN010C
Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol...: 0						
<b>Prep Batch #....: 0285418</b>						
Arsenic	1.2	0.29	mg/kg	SW846 6010B	10/11-10/12/00	DLCN0104
Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol...: 0						
Lead	2.5	0.58	mg/kg	SW846 6010B	10/11-10/12/00	DLCN0105
Dilution Factor: 2 Initial Wgt/Vol: Final Wgt/Vol...: 0						
Selenium	ND	0.58	mg/kg	SW846 6010B	10/11-10/12/00	DLCN0106
Dilution Factor: 2 Initial Wgt/Vol: Final Wgt/Vol...: 0						
Barium	81.2	5.8	mg/kg	SW846 6010B	10/11-10/12/00	DLCN0107
Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol...: 0						
Cadmium	ND	0.58	mg/kg	SW846 6010B	10/11-10/12/00	DLCN0108
Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol...: 0						
Chromium	ND	2.3	mg/kg	SW846 6010B	10/11-10/12/00	DLCN0109
Dilution Factor: 2 Initial Wgt/Vol: Final Wgt/Vol...: 0						
Silver	ND	1.2	mg/kg	SW846 6010B	10/11-10/12/00	DLCN010A
Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol...: 0						

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B2

## General Chemistry

**Lot-Sample #....:** B0I300119-002    **Work Order #....:** DLCN0    **Matrix.....:** SOLID  
**Date Sampled....:** 09/28/00    **Date Received..:** 09/30/00  
**% Moisture.....:** 13

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH (solid)	9.1	0.10	No Units	SW846 9045A Dilution Factor: 1	Initial Wgt/Vol: Final Wgt/Vol...: 0	09/30/00 0276317
Chloride	ND	5.8	mg/kg	MCAWW 300.0A Dilution Factor: 1	Initial Wgt/Vol: 10 g Final Wgt/Vol...: 100 mL	09/30-10/01/00 0276192
Fluoride	1.9	1.2	mg/kg	MCAWW 340.2 Dilution Factor: 1	Initial Wgt/Vol: 20 g Final Wgt/Vol...: 100 mL	10/06/00 0283107
Nitrate as N	ND	2.9	mg/kg	MCAWW 300.0A Dilution Factor: 1	Initial Wgt/Vol: 10 g Final Wgt/Vol...: 100 mL	09/30-10/01/00 0276193
Percent Solids	86.8	0.10	%	MCAWW 160.3 MOD Dilution Factor: 1	Initial Wgt/Vol: Final Wgt/Vol...: 0	10/04-10/05/00 0279160
Sulfate	9.5	5.8	mg/kg	MCAWW 300.0A Dilution Factor: 1	Initial Wgt/Vol: 10 g Final Wgt/Vol...: 100 mL	09/30-10/01/00 0276194

NOTE(S) :

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B3

**GC/MS Volatiles**

**Lot-Sample #....:** B0I300119-003    **Work Order #....:** DLCN1101    **Matrix.....:** SOLID  
**Date Sampled....:** 09/28/00    **Date Received...:** 09/30/00  
**Prep Date.....:** 10/11/00    **Analysis Date...:** 10/11/00  
**Prep Batch #....:** 0286175  
**Dilution Factor:** 1    **Initial Wgt/Vol:** 6.22 g    **Final Wgt/Vol..:** 5 mL  
**% Moisture.....:** 17    **Method.....:** SW846 8260B

PARAMETER	REPORTING		
	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

SURROGATE	PERCENT		RECOVERY
	RECOVERY	LIMITS	
Bromofluorobenzene	79	(28 - 159)	
1,2-Dichloroethane-d4	102	(51 - 168)	
Toluene-d8	114	(66 - 152)	
Dibromofluoromethane	104	(73 - 151)	

**NOTE(S) :**

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B3

GC Volatiles

Lot-Sample #....: B01300119-003    Work Order #....: DLCN1103    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: 5.29 g    Final Wgt/Vol...: 5 mL  
% Moisture.....: 17            Method.....: SW846 8015B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Gasoline Range Organics	ND	6.0	mg/kg
SURROGATE	PERCENT	RECOVERY	
	RECOVERY	LIMITS	(39 - 163)
4-Bromofluorobenzene	99		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B3

**GC Semivolatiles**

Lot-Sample #....:	B0I300119-003	Work Order #....:	DLCN1102	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:	29.57 g	Final Wgt/Vol...:	1 mL
% Moisture.....:	17	Method.....:	SW846 8015B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Diesel Range Organics	ND	12	mg/kg
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS	
Tetratriacontane	82	(25 - 113)	

**NOTE(S) :**

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B3

## TOTAL Metals

Lot-Sample #...: B0I300119-003  
 Date Sampled...: 09/28/00  
 \* Moisture.....: 17

Matrix.....: SOLID

Date Received...: 09/30/00

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

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B3

**General Chemistry**

**Lot-Sample #....:** B0I300119-003    **Work Order #....:** DLCN1    **Matrix.....:** SOLID  
**Date Sampled....:** 09/28/00    **Date Received...:** 09/30/00  
**% Moisture.....:** 17

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH (solid)	8.9	0.10	No Units	SW846 9045A Dilution Factor: 1	Initial Wgt/Vol: Final Wgt/Vol.: 0	09/30/00 0276317
Chloride	ND	6.0	mg/kg	MCAWW 300.0A Dilution Factor: 1	Initial Wgt/Vol: 10 g Final Wgt/Vol.: 100 mL	09/30-10/01/00 0276192
Fluoride	3.4	1.2	mg/kg	MCAWW 340.2 Dilution Factor: 1	Initial Wgt/Vol: 20 g Final Wgt/Vol.: 100 mL	10/06/00 0283107
Nitrate as N	ND	3.0	mg/kg	MCAWW 300.0A Dilution Factor: 1	Initial Wgt/Vol: 10 g Final Wgt/Vol.: 100 mL	09/30-10/01/00 0276193
Percent Solids	83.0	0.10	%	MCAWW 160.3 MOD Dilution Factor: 1	Initial Wgt/Vol: Final Wgt/Vol.: 0	10/04-10/05/00 0279160
Sulfate	ND	6.0	mg/kg	MCAWW 300.0A Dilution Factor: 1	Initial Wgt/Vol: 10 g Final Wgt/Vol.: 100 mL	09/30-10/01/00 0276194

**NOTE(S) :**

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B4

GC/MS Volatiles

Lot-Sample #....: B01300119-004	Work Order #....: DLCN2101	Matrix.....: SOLID
Date Sampled....: 09/28/00	Date Received...: 09/30/00	
Prep Date.....: 10/11/00	Analysis Date...: 10/11/00	
Prep Batch #....: 0286175		
Dilution Factor: 1	Initial Wgt/Vol: 6.68 g	Final Wgt/Vol.: 5 mL
% Moisture.....: 19	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING	
		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

SURROGATE	PERCENT RECOVERY	RECOVERY	
		LIMITS	
Bromofluorobenzene	83	(28	- 159)
1,2-Dichloroethane-d4	108	(51	- 168)
Toluene-d8	111	(66	- 152)
Dibromofluoromethane	106	(73	- 151)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

CONOCO

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	Initial Wgt/Vol: 5.09 g	Final Wgt/Vol...: 5 mL
% Moisture.....: 19	Method.....: SW846 8015B	

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
Gasoline Range Organics	ND	6.1	mg/kg

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
4-Bromofluorobenzene	95	(39 - 163)

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B4

**GC Semivolatiles**

Lot-Sample #....: B0I300119-004    Work Order #....: DLCN2102    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: 29.42 g    Final Wgt/Vol...: 1 mL  
% Moisture.....: 19            Method.....: SW846 8015B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Diesel Range Organics	ND	12	mg/kg
SURROGATE	PERCENT	RECOVERY	LIMITS
Tetratriacontane	RECOVERY 70	(25 - 113)	

**NOTE (S) :**

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B4

**TOTAL Metals**

Lot-Sample #....: B0I300119-004

Matrix.....: SOLID

Date Sampled...: 09/28/00

Date Received..: 09/30/00

% Moisture.....: 19

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #....:	0285375					
Mercury	ND	0.12	mg/kg	SW846 7471A	10/11/00	DLCN210C
		Dilution Factor: 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 Factor: 1		Initial Wgt/Vol:		Final Wgt/Vol.: 0
Lead	3.5	1.5	mg/kg	SW846 6010B	10/11-10/12/00	DLCN2105
		Dilution Factor: 5		Initial Wgt/Vol:		Final Wgt/Vol.: 0
Selenium	ND	1.5	mg/kg	SW846 6010B	10/11-10/12/00	DLCN2106
		Dilution Factor: 5		Initial Wgt/Vol:		Final Wgt/Vol.: 0
Barium	50.9	6.1	mg/kg	SW846 6010B	10/11-10/12/00	DLCN2107
		Dilution Factor: 1		Initial Wgt/Vol:		Final Wgt/Vol.: 0
Cadmium	ND	0.61	mg/kg	SW846 6010B	10/11-10/12/00	DLCN2108...
		Dilution Factor: 1		Initial Wgt/Vol:		Final Wgt/Vol.: 0
Chromium	11.2	6.1	mg/kg	SW846 6010B	10/11-10/12/00	DLCN2109
		Dilution Factor: 5		Initial Wgt/Vol:		Final Wgt/Vol.: 0
Silver	ND	1.2	mg/kg	SW846 6010B	10/11-10/12/00	DLCN210A
		Dilution Factor: 1		Initial Wgt/Vol:		Final Wgt/Vol.: 0

**NOTE(S) :**

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: #B4

## General Chemistry

Lot-Sample #....: B01300119-004    Work Order #....: DLCN2    Matrix.....: SOLID  
 Date Sampled...: 09/28/00    Date Received..: 09/30/00  
 \* Moisture.....: 19

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
pH (solid)	8.9	0.10	No Units	SW846 9045A	09/30/00	0276317
			Dilution Factor: 1	Initial Wgt/Vol:	Final Wgt/Vol.: 0	
Chloride	ND	6.1	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276192
			Dilution Factor: 1	Initial Wgt/Vol: 10 g	Final Wgt/Vol.: 100 mL	
Fluoride	6.1	1.2	mg/kg	MCAWW 340.2	10/06/00	0283107
			Dilution Factor: 1	Initial Wgt/Vol: 20 g	Final Wgt/Vol.: 100 mL	
Nitrate as N	ND	3.1	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276193
			Dilution Factor: 1	Initial Wgt/Vol: 10 g	Final Wgt/Vol.: 100 mL	
Percent Solids	81.3	0.10	%	MCAWW 160.3 MOD	10/04-10/05/00	0279160
			Dilution Factor: 1	Initial Wgt/Vol:	Final Wgt/Vol.: 0	
Sulfate	12.3	6.1	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276194
			Dilution Factor: 1	Initial Wgt/Vol: 10 g	Final Wgt/Vol.: 100 mL	

NOTE(S) :

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B5

**GC/MS Volatiles**

**Lot-Sample #....:** B0I300119-005    **Work Order #....:** DLCN3101    **Matrix.....:** SOLID  
**Date Sampled....:** 09/28/00    **Date Received..:** 09/30/00  
**Prep Date.....:** 10/11/00    **Analysis Date...:** 10/11/00  
**Prep Batch #....:** 0286175  
**Dilution Factor:** 1            **Initial Wgt/Vol:** 6.28 g            **Final Wgt/Vol..:** 5 mL  
**% Moisture.....:** 16        **Method.....:** SW846 8260B

<b>REPORTING</b>			
<b>PARAMETER</b>	<b>RESULT</b>	<b>LIMIT</b>	<b>UNITS</b>
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

<b>SURROGATE</b>	<b>PERCENT</b>	<b>RECOVERY</b>
	<b>RECOVERY</b>	<b>LIMITS</b>
Bromofluorobenzene	71	(28 - 159)
1,2-Dichloroethane-d4	120	(51 - 168)
Toluene-d8	123	(66 - 152)
Dibromofluoromethane	117	(73 - 151)

**NOTE(S) :**

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B5

GC Volatiles

Lot-Sample #....: B01300119-005      Work Order #....: DLCN3103      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: 5.55 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
	RECOVERY	LIMITS
4-Bromofluorobenzene	93	(39 - 163)

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: AB5

GC Semivolatiles

Lot-Sample #....: B01300119-005 Work Order #....: DLCN3102 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: 29.85 g Final Wgt/Vol...: 1 mL  
% Moisture.....: 16 Method.....: SW846 8015B

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
Diesel Range Organics	74	12	mg/kg

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

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client/Sample ID-tBS

## TOTAL Metals

Lot-Sample #....: B01300519-005

Matrix.....: SOLID

Date Sampled...: 09/28/00

Date Received...: 09/30/00

% Moisture.....: 16

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
		LIMIT	UNITS				
<b>Prep Batch #....: 0285375</b>							
Mercury	ND	0.12	mg/kg	SW846 7471A	Initial Wgt/Vol:	10/11/00	DLCN310C
Dilution Factor: 1 Final Wgt/Vol.: 0							
<b>Prep Batch #....: 0285418</b>							
Arsenic	1.4	0.30	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCN3104
Dilution Factor: 1 Final Wgt/Vol.: 0							
Lead	2.7	0.30	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCN3105
Dilution Factor: 1 Final Wgt/Vol.: 0							
Selenium	0.41	0.30	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCN3106
Dilution Factor: 1 Final Wgt/Vol.: 0							
Barium	20.7	5.9	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCN3107
Dilution Factor: 1 Final Wgt/Vol.: 0							
Cadmium	ND	0.59	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCN3108
Dilution Factor: 1 Final Wgt/Vol.: 0							
Chromium	56.9	1.2	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCN3109
Dilution Factor: 1 Final Wgt/Vol.: 0							
Silver	ND	1.2	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCN310A
Dilution Factor: 1 Final Wgt/Vol.: 0							

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B5

## General Chemistry

Lot-Sample #....: B01300119-005    Work Order #...: DLCN3    Matrix.....: SOLID  
 Date Sampled...: 09/28/00    Date Received..: 09/30/00  
 % Moisture.....: 16

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
pH (solid)	8.3	0.10	No Units	SW846 9045A	09/30/00	0276317
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol...: 0	
Chloride	7.1	5.9	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276192
		Dilution Factor: 1		Initial Wgt/Vol: 10 g	Final Wgt/Vol...: 100 mL	
Fluoride	2.0	1.2	mg/kg	MCAWW 340.2	10/06/00	0283107
		Dilution Factor: 1		Initial Wgt/Vol: 20 g	Final Wgt/Vol...: 100 mL	
Nitrate as N	ND	3.0	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276193
		Dilution Factor: 1		Initial Wgt/Vol: 10 g	Final Wgt/Vol...: 100 mL	
Percent Solids	84.5	0.10	%	MCAWW 160.3 MOD	10/04-10/05/00	0279160
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol...: 0	
Sulfate	10.9	5.9	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276194
		Dilution Factor: 1		Initial Wgt/Vol: 10 g	Final Wgt/Vol...: 100 mL	

NOTE(S) :

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

CONOCO

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           Initial Wgt/Vol: 5.09 g           Final Wgt/Vol.: 5 mL  
 % Moisture.....: 14           Method.....: SW846 8260B

<u>PARAMETER</u>	<u>REPORTING</u>		
	<u>RESULT</u>	<u>LIMIT</u>	<u>UNITS</u>
Benzene	ND	1500	ug/kg
Ethylbenzene	16000	1500	ug/kg
Toluene	ND	1500	ug/kg
Xylenes (total)	14000	1500	ug/kg

<u>SURROGATE</u>	<u>PERCENT</u>		<u>RECOVERY</u>
	<u>RECOVERY</u>		<u>LIMITS</u>
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.

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B6

GC Volatiles

Lot-Sample #....: B0I300119-006    Work Order #....: DLCN4103    Matrix.....: SOLID  
Date Sampled...: 09/28/00    Date Received..: 09/30/00  
Prep Date.....: 09/30/00    Analysis Date..: 10/09/00  
Prep Batch #....: 0280279  
Dilution Factor: 5            Initial Wgt/Vol: 5.14 g            Final Wgt/Vol.: 5 mL  
% Moisture.....: 14            Method.....: SW846 8015B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Gasoline Range Organics	480	29	mg/kg
SURROGATE	PERCENT	RECOVERY	LIMITS
4-Bromofluorobenzene	RECOVERY 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.

CONOCO

Client Sample ID: B6

**GC Semivolatiles**

Lot-Sample #...: B0I300119-006 Work Order #...: DLCN4102 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: 29.43 g Final Wgt/Vol...: 1 mL  
% Moisture.....: 14 Method.....: SW846 8015B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Diesel Range Organics	2700	120	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.

## CONOCO

Client Sample ID: B6

TOTAL Metals

Lot-Sample #....: B0I300119-006

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

Date Received..: 09/30/00

Matrix.....: SOLID

% Moisture.....: 14

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

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: #B6

## General Chemistry

Lot-Sample #....: B0I300119-006    Work Order #....: DLCN4    Matrix.....: SOLID  
 Date Sampled...: 09/28/00    Date Received..: 09/30/00  
 % Moisture.....: 14

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 Factor: 1	Initial Wgt/Vol:	Final Wgt/Vol...: 0	
Chloride	14.3	5.8	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276192
			Dilution Factor: 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
			Dilution Factor: 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
			Dilution Factor: 1	Initial Wgt/Vol: 10 g	Final Wgt/Vol...: 100 mL	
Percent Solids	86.0	0.10	%	MCAWW 160.3 MOD	10/04-10/05/00	0279160
			Dilution Factor: 1	Initial Wgt/Vol:	Final Wgt/Vol...: 0	
Sulfate	9.0	5.8	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276194
			Dilution Factor: 1	Initial Wgt/Vol: 10 g	Final Wgt/Vol...: 100 mL	

NOTE(S) :

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B7

## GC/MS Volatiles

Lot-Sample #....: B01300119-008    Work Order #....: DLCN7101    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: 1           Initial Wgt/Vol: 5.14 g           Final Wgt/Vol.: 5 mL  
 % Moisture.....: 15           Method.....: SW846 8260B

<u>PARAMETER</u>	<u>REPORTING</u>		
	<u>RESULT</u>	<u>LIMIT</u>	<u>UNITS</u>
Benzene	ND	300	ug/kg
Ethylbenzene	3000	300	ug/kg
Toluene	ND	300	ug/kg
Xylenes (total)	2300	300	ug/kg

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
1,2-Dichloroethane-d4	107	(57 - 132)
Bromofluorobenzene	95	(58 - 135)
Dibromofluoromethane	106	(57 - 130)
Toluene-d8	111	(61 - 133)

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B7

GC Volatiles

Lot-Sample #....: B0I300119-008    Work Order #....: DLCN7103    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: 6.01 g            Final Wgt/Vol...: 5 mL  
% Moisture.....: 15            Method.....: SW846 8015B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Gasoline Range Organics	170	5.9	mg/kg
SURROGATE	PERCENT	RECOVERY	LIMITS
4-Bromofluorobenzene	47	(39 - 163)	

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B

GC Semivolatiles

Lot-Sample #....: B01300119-008 Work Order #....: DLGN7102 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

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Diesel Range Organics	3800	120	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.

CONOCO

Client Sample ID: B7

## TOTAL Metals

Lot-Sample #...: B0I300119-008

Matrix.....: SOLID

Date Sampled...: 09/28/00

Date Received...: 09/30/00

% Moisture....: 15

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
		LIMIT	UNITS				
<b>Prep Batch #...: 0285375</b>							
Mercury	0.82	0.12	mg/kg	SW846 7471A	Initial Wgt/Vol:	10/11/00	DLCN710C
		Dilution Factor: 1				Final Wgt/Vol...: 0	
<b>Prep Batch #...: 0285418</b>							
Arsenic	3.1	0.30	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCN7104
		Dilution Factor: 1				Final Wgt/Vol...: 0	
Lead	5.5	0.30	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCN7105
		Dilution Factor: 1				Final Wgt/Vol...: 0	
Selenium	0.96	0.30	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCN7106
		Dilution Factor: 1				Final Wgt/Vol...: 0	
Barium	43.9	5.9	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCN7107
		Dilution Factor: 1				Final Wgt/Vol...: 0	
Cadmium	ND	0.59	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCN7108
		Dilution Factor: 1				Final Wgt/Vol...: 0	
Chromium	16.9	1.2	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCN7109
		Dilution Factor: 1				Final Wgt/Vol...: 0	
Silver	ND	1.2	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCN710A
		Dilution Factor: 1				Final Wgt/Vol...: 0	

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B7

## General Chemistry

Lot-Sample #....: B0I300119-008      Work Order #....: DLCN7      Matrix.....: SOLID  
 Date Sampled....: 09/28/00      Date Received...: 09/30/00  
 % Moisture.....: 15

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-ANALYSIS DATE</u>	<u>PREP BATCH #</u>
pH (solid)	8.2	0.10	No Units Dilution Factor: 1	SW846 9045A Initial Wgt/Vol:	09/30/00 Final Wgt/Vol...: 0	0276317
Chloride	31.8	5.9	mg/kg Dilution Factor: 1	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol...: 100 mL	0276192
Fluoride	ND	1.2	mg/kg Dilution Factor: 1	MCAWW 340.2 Initial Wgt/Vol: 20 g	10/06/00 Final Wgt/Vol...: 100 mL	0283107
Nitrate as N	ND	3.0	mg/kg Dilution Factor: 1	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol...: 100 mL	0276193
Percent Solids	84.5	0.10	% Dilution Factor: 1	MCAWW 160.3 MOD Initial Wgt/Vol:	10/04-10/05/00 Final Wgt/Vol...: 0	0279160
Sulfate	23.0	5.9	mg/kg Dilution Factor: 1	MCAWW 300.0A Initial Wgt/Vol: 10 g	09/30-10/01/00 Final Wgt/Vol...: 100 mL	0276194

NOTE(S) :

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B8

## GC/MS/Volatiles

Lot-Sample #....: B0I300119-009    Work Order #....: DLCN8101    Matrix.....: SOLID  
 Date Sampled....: 09/28/00    Date Received..: 09/30/00  
 Prep Date.....: 10/11/00    Analysis Date..: 10/11/00  
 Prep Batch #....: 0286175  
 Dilution Factor: 1            Initial Wgt/Vol: 5.1 g            Final Wgt/Vol.: 5 mL  
 % Moisture.....: 12            Method.....: SW846 8260B

<u>PARAMETER</u>	<u>REPORTING</u>		
	<u>RESULT</u>	<u>LIMIT</u>	<u>UNITS</u>
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

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	
		(	)
Bromofluorobenzene	80	(28	- 159)
1,2-Dichloroethane-d4	117	(51	- 168)
Toluene-d8	109	(66	- 152)
Dibromofluoromethane	111	(73	- 151)

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B8

GC Volatiles

Lot-Sample #...: B0I300119-009 Work Order #...: DLCN8103 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: 5.33 g Final Wgt/Vol...: 5 mL  
% Moisture.....: 12 Method.....: SW846 8015B

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
Gasoline Range Organics	ND	5.7	mg/kg
SURROGATE	PERCENT	RECOVERY	
	RECOVERY	LIMITS	
4-Bromofluorobenzene	111	(39 - 163)	

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B8

GC Semivolatiles

Lot-Sample #....: B0I300119-009 Work Order #....: DLCN8102 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: 29.4 g Final Wgt/Vol...: 1 mL  
Moisture.....: 12 Method.....: SW846 8015B

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
Diesel Range Organics	ND	11	mg/kg
SURROGATE	PERCENT		
	RECOVERY	RECOVERY	LIMITS
Tetratriacontane	59	(25 - 113)	

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

## CONOCO

Client Sample ID: B8

## TOTAL Metals

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

Date Sampled...: 09/28/00

Date Received..: 09/30/00

Matrix.....: SOLID

\* Moisture.....: 12

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
		LIMIT	UNITS				
<b>Prep Batch #....: 0285375</b>							
Mercury	ND	0.11	mg/kg	SW846 7471A	Initial Wgt/Vol:	10/11/00	DLCN810C
Dilution Factor: 1							
<b>Prep Batch #....: 0285418</b>							
Arsenic	1.5	0.28	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCN8104
Dilution Factor: 1							
Lead	2.6	0.28	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCN8105
Dilution Factor: 1							
Selenium	0.55	0.28	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCN8106
Dilution Factor: 1							
Barium	15.2	5.7	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCN8107
Dilution Factor: 1							
Cadmium	ND	0.57	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCN8108
Dilution Factor: 1							
Chromium	126	1.1	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCN8109
Dilution Factor: 1							
Silver	ND	1.1	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCN810A
Dilution Factor: 1							

**NOTE(S) :**

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B8

**General Chemistry**

Lot-Sample #...: B01300119-009    Work Order #...: DLCN8    Matrix.....: SOLID  
 Date Sampled...: 09/28/00    Date Received..: 09/30/00  
 \* Moisture.....: 12

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-ANALYSIS DATE</u>	<u>PREP BATCH #</u>
pH (solid)	9.0	0.10	No Units	SW846 9045A	09/30/00	0276317
			Dilution Factor: 1	Initial Wgt/Vol:	Final Wgt/Vol.: 0	
Chloride	11.9	5.7	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276192
			Dilution Factor: 1	Initial Wgt/Vol: 10 g	Final Wgt/Vol.: 100 mL	
Fluoride	1.2	1.1	mg/kg	MCAWW 340.2	10/06/00	0283107
			Dilution Factor: 1	Initial Wgt/Vol: 20 g	Final Wgt/Vol.: 100 mL	
Nitrate as N	ND	2.8	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276193
			Dilution Factor: 1	Initial Wgt/Vol: 10 g	Final Wgt/Vol.: 100 mL	
Percent Solids	88.3	0.10	%	MCAWW 160.3 MOD	10/04-10/05/00	0279160
			Dilution Factor: 1	Initial Wgt/Vol:	Final Wgt/Vol.: 0	
Sulfate	12.2	5.7	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276194
			Dilution Factor: 1	Initial Wgt/Vol: 10 g	Final Wgt/Vol.: 100 mL	

**NOTE (S) :**

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

CONOCO

**Client Sample ID: B9****GC/MS Volatiles**

Lot-Sample #....: B01300119-010      Work Order #....: DLCN9101      Matrix.....: SOLID  
 Date Sampled....: 09/28/00      Date Received...: 09/30/00  
 Prep Date.....: 10/11/00      Analysis Date...: 10/11/00  
 Prep Batch #....: 0286175  
 Dilution Factor: 1      Initial Wgt/Vol: 5.5 g      Final Wgt/Vol.: 5 mL  
 % Moisture.....: 4.5      Method.....: SW846 8260B

PARAMETER	REPORTING		
	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

SURROGATE	PERCENT	RECOVERY	
		RECOVERY	LIMITS
Bromofluorobenzene	76	(28	- 159)
1,2-Dichloroethane-d4	113	(51	- 168)
Toluene-d8	120	(66	- 152)
Dibromofluoromethane	111	(73	- 151)

**NOTE(S) :**

Results and reporting limits have been adjusted for dry weight.

CONOCO

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 g            Final Wgt/Vol...: 5 mL  
% Moisture.....: 4.5            Method.....: SW846 8015B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Gasoline Range Organics	ND	5.2	mg/kg
SURROGATE	PERCENT	RECOVERY	
	RECOVERY	LIMITS	
4-Bromofluorobenzene	108	(39 - 163)	

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B9

GC Semivolatiles

Lot-Sample #....: B01300119-010    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

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Diesel Range Organics	ND	10	mg/kg
SURROGATE	PERCENT	RECOVERY	
	RECOVERY	LIMITS	
Tetratriacontane	64	(25 - 113)	

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

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

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

**NOTE (S) :**

Results and reporting limits have been adjusted for dry weight.

CONOCO

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 #
pH (solid)	8.3	0.10	No Units	SW846 9045A Dilution Factor: 1	Initial Wgt/Vol: Final Wgt/Vol...: 0	09/30/00    0276317
Chloride	38.0	5.2	mg/kg	MCAWW 300.0A Dilution Factor: 1	Initial Wgt/Vol: 10 g	09/30-10/01/00 0276192 Final Wgt/Vol...: 100 mL
Fluoride	2.7	1.0	mg/kg	MCAWW 340.2 Dilution Factor: 1	Initial Wgt/Vol: 20 g	10/06/00    0283107 Final Wgt/Vol...: 100 mL
Nitrate as N	46.6	2.6	mg/kg	MCAWW 300.0A Dilution Factor: 1	Initial Wgt/Vol: 10 g	09/30-10/01/00 0276193 Final Wgt/Vol...: 100 mL
Percent Solids	95.5	0.10	%	MCAWW 160.3 MOD Dilution Factor: 1	Initial Wgt/Vol: Final Wgt/Vol...: 0	10/04-10/05/00 0279160
Sulfate	363	5.2	mg/kg	MCAWW 300.0A Dilution Factor: 1	Initial Wgt/Vol: 10 g	09/30-10/01/00 0276194 Final Wgt/Vol...: 100 mL

**NOTE(S) :**

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B10

GC/MS Volatiles

Lot-Sample #....: B0I300119-011	Work Order #....: DLCNA101	Matrix.....: SOLID
Date Sampled....: 09/28/00	Date Received...: 09/30/00	
Prep Date.....: 10/11/00	Analysis Date...: 10/11/00	
Prep Batch #....: 0286175		
Dilution Factor: 1	Initial Wgt/Vol: 5.15 g	Final Wgt/Vol.: 5 mL
% Moisture.....: 1.3	Method.....: SW846 8260B	

PARAMETER	REPORTING		
	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

SURROGATE	PERCENT		RECOVERY
	RECOVERY	LIMITS	
Bromofluorobenzene	77	(28 - 159)	
1,2-Dichloroethane-d4	105	(51 - 168)	
Toluene-d8	117	(66 - 152)	
Dibromofluoromethane	104	(73 - 151)	

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B10

GC Volatiles

Lot-Sample #....: B0I300119-011    Work Order #....: DLCNA103    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: 5.23 g            Final Wgt/Vol...: 5 mL  
% Moisture.....: 1.3            Method.....: SW846 8015B

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
Gasoline Range Organics	ND	5.1	mg/kg
SURROGATE	PERCENT	RECOVERY	
	RECOVERY	LIMITS	
4-Bromofluorobenzene	106	(39 - 163)	

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B10

GC Semivolatiles

Lot-Sample #....: B01300119-011	Work Order #....: DLCNA102	Matrix.....: SOLID
Date Sampled...: 09/28/00	Date Received...: 09/30/00	
Prep Date.....: 10/02/00	Analysis Date...: 10/07/00	
Prep Batch #....: 0276444		
Dilution Factor: 1	Initial Wgt/Vol: 29.78 g	Final Wgt/Vol...: 1 mL
% Moisture.....: 1.3	Method.....: SW846 8015B	

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
Diesel Range Organics	ND	10	mg/kg
SURROGATE	PERCENT	RECOVERY	
Tetratriacontane	RECOVERY	LIMITS	
	71	(25 - 113)	

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B10

**TOTAL Metals**

Lot-Sample #...: B01300119-011  
 Date Sampled...: 09/28/00  
 % Moisture....: 1.3

Matrix.....: SOLID

Date Received..: 09/30/00

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
		LIMIT	UNITS	METHOD			
<b>Prep Batch #...: 0285375</b>							
Mercury	ND	0.10	mg/kg	SW846 7471A	Initial Wgt/Vol:	10/11/00	DLCNA10C
Dilution Factor: 1							
<b>Prep Batch #...: 0285418</b>							
Arsenic	1.6	0.25	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCNA104
Dilution Factor: 1							
Lead	1.6	0.25	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCNA105
Dilution Factor: 1							
Selenium	ND	0.25	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCNA106
Dilution Factor: 1							
Barium	11.5	5.1	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCNA107
Dilution Factor: 1							
Cadmium	ND	0.51	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCNA108
Dilution Factor: 1							
Chromium	2.2	1.0	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCNA109
Dilution Factor: 1							
Silver	ND	1.0	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLCNA10A
Dilution Factor: 1							

**NOTE(S):**

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B10

**General Chemistry**

**Lot-Sample #....:** B0I300119-011    **Work Order #....:** DLCNA    **Matrix.....:** SOLID  
**Date Sampled....:** 09/28/00    **Date Received...:** 09/30/00  
**% Moisture.....:** 1.3

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

**NOTE (S) :**

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B-3-2

GC/MS Volatiles

Lot-Sample #....:	B0I300119-012	Work Order #....:	DLCNC101	Matrix.....:	SOLID
Date Sampled....:	09/29/00	Date Received..:	09/30/00		
Prep Date.....:	10/11/00	Analysis Date..:	10/11/00		
Prep Batch #....:	0286175				
Dilution Factor:	1	Initial Wgt/Vol:	6.27 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	5.6	Method.....:	SW846 8260B		

PARAMETER	REPORTING		
	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	PERCENT		RECOVERY
	RECOVERY	LIMITS	
Bromofluorobenzene	78	(28 - 159)	
1,2-Dichloroethane-d4	153	(51 - 168)	
Toluene-d8	120	(66 - 152)	
Dibromofluoromethane	142	(73 - 151)	

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

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

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Gasoline Range Organics	ND	5.3	mg/kg
PERCENT		RECOVERY	
SURROGATE	RECOVERY	LIMITS	
4-Bromofluorobenzene	105	(39 - 163)	

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B-3-2

GC Semivolatiles

Lot-Sample #....:	B01300119-012	Work Order #....:	DLCNC102	Matrix.....:	SOLID
Date Sampled....:	09/29/00	Date Received...:	09/30/00		
Prep Date.....:	10/02/00	Analysis Date...:	10/11/00		
Prep Batch #....:	0276444				
Dilution Factor:	10	Initial Wgt/Vol:	29.95 g	Final Wgt/Vol..:	1 mL
% Moisture.....:	5.6	Method.....:	SW846 8015B		

PARAMETER	RESULT	REPORTING		UNITS
		LIMIT		
Diesel Range Organics	2300	110		mg/kg
SURROGATE	PERCENT RECOVERY	RECOVERY		LIMITS
		NC, SRD	(25 - 113)	
Tetratriacontane				

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.

CONOCO

Client Sample ID: B-3-2

## TOTAL Metals

Lot-Sample #....: B0I300119-012  
 Date Sampled....: 09/29/00  
 % Moisture.....: 5.6

Matrix.....: SOLID

Date Received...: 09/30/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
<b>Prep Batch #....: 0285375</b>						
Mercury	ND	0.11	mg/kg	SW846 7471A Dilution Factor: 1	Initial Wgt/Vol:	10/11/00 Final Wgt/Vol...: 0
<b>Prep Batch #....: 0285418</b>						
Arsenic	2.1	0.26	mg/kg	SW846 6010B Dilution Factor: 1	Initial Wgt/Vol:	10/11-10/12/00 Final Wgt/Vol...: 0
Lead	3.7	1.3	mg/kg	SW846 6010B Dilution Factor: 5	Initial Wgt/Vol:	10/11-10/12/00 Final Wgt/Vol...: 0
Selenium	ND	1.3	mg/kg	SW846 6010B Dilution Factor: 5	Initial Wgt/Vol:	10/11-10/12/00 Final Wgt/Vol...: 0
Barium	140	5.3	mg/kg	SW846 6010B Dilution Factor: 1	Initial Wgt/Vol:	10/11-10/12/00 Final Wgt/Vol...: 0
Cadmium	ND	0.53	mg/kg	SW846 6010B Dilution Factor: 1	Initial Wgt/Vol:	10/11-10/12/00 Final Wgt/Vol...: 0
Chromium	ND	5.3	mg/kg	SW846 6010B Dilution Factor: 5	Initial Wgt/Vol:	10/11-10/12/00 Final Wgt/Vol...: 0
Silver	ND	1.1	mg/kg	SW846 6010B Dilution Factor: 1	Initial Wgt/Vol:	10/11-10/12/00 Final Wgt/Vol...: 0

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B-3-2

**General Chemistry**

**Lot-Sample #....:** B01300119-012    **Work Order #....:** DLCNC    **Matrix.....:** SOLID  
**Date Sampled....:** 09/29/00    **Date Received...:** 09/30/00  
**% Moisture.....:** 5.6

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH (solid)	8.3	0.10	No Units	SW846 9045A Dilution Factor: 1	Initial Wgt/Vol: 09/30/00	Final Wgt/Vol.: 0 0276317
Chloride	28.4	5.3	mg/kg	MCAWW 300.0A Dilution Factor: 1	Initial Wgt/Vol: 10 g	09/30-10/01/00 0276192 Final Wgt/Vol.: 100 mL
Fluoride	4.8	1.1	mg/kg	MCAWW 340.2 Dilution Factor: 1	Initial Wgt/Vol: 20 g	10/06/00 0283107 Final Wgt/Vol.: 100 mL
Nitrate as N	ND	2.6	mg/kg	MCAWW 300.0A Dilution Factor: 1	Initial Wgt/Vol: 10 g	09/30-10/01/00 0276193 Final Wgt/Vol.: 100 mL
Percent Solids	94.4	0.10	%	MCAWW 160.3 MOD Dilution Factor: 1	Initial Wgt/Vol:	10/04-10/05/00 0279160 Final Wgt/Vol.: 0
Sulfate	65.4	5.3	mg/kg	MCAWW 300.0A Dilution Factor: 1	Initial Wgt/Vol: 10 g	09/30-10/01/00 0276194 Final Wgt/Vol.: 100 mL

**NOTE (S) :**

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

CONOCO

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	
Prep Date.....: 10/11/00	Analysis Date...: 10/11/00	
Prep Batch #....: 0286175		
Dilution Factor: 1	Initial Wgt/Vol: 5.34 g	Final Wgt/Vol.: 5 mL
% Moisture.....: 7.4	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING	
		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

SURROGATE	PERCENT	RECOVERY	RECOVERY
			LIMITS
Bromofluorobenzene	107		(28 - 159)
1,2-Dichloroethane-d4	137		(51 - 168)
Toluene-d8	111		(66 - 152)
Dibromofluoromethane	140		(73 - 151)

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

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		
Prep Date.....:	09/30/00	Analysis Date...:	10/07/00		
Prep Batch #....:	0280279				
Dilution Factor:	1	Initial Wgt/Vol:	5.32 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	7.4	Method.....:	SW846 8015B		

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Gasoline Range Organics	ND	5.4	mg/kg
SURROGATE	PERCENT	RECOVERY	
	RECOVERY	LIMITS	
4-Bromofluorobenzene	105	(39 - 163)	

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B-1-1

GC/Semivolatiles

Lot-Sample# : B0130019-013 Work Order #.: DLCND102 Matrix...: SOLID  
Date Sampled : 09/29/00 Date Received.: 09/30/00  
Prep Date....: 10/02/00 Analysis Date...: 10/11/00  
Prep Batch #: 0276444  
Dilution Factor: 10 Initial Wgt/Vol: 29.99 g Final Wgt/Vol.: 1 mL  
% Moisture....: 7.4 Method.....: SW846 8015B

PARAMETER	REPORTING		UNITS
	RESULT	LIMIT	
Diesel Range Organics	1600	110	mg/kg
SURROGATE	PERCENT	RECOVERY	LIMITS
	RECOVERY	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.

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B-3-1

## TOTAL Metals

Lot-Sample #...: BOI300119-013

Matrix.....: SOL

Date Sampled...: 09/29/00

Date Received..: 09/30/00

% Moisture....: 7.4

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WOR ORD
<b>Prep Batch #...: 0285375</b>						
Mercury	ND	0.11	mg/kg	SW846 7471A	10/11/00	DLC
Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol...: 0						
<b>Prep Batch #...: 0285418</b>						
Arsenic	4.6	0.27	mg/kg	SW846 6010B	10/11-10/12/00	DLC
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol...: 0	
Lead	5.2	2.7	mg/kg	SW846 6010B	10/11-10/12/00	DLC
		Dilution Factor: 10		Initial Wgt/Vol:	Final Wgt/Vol...: 0	
Selenium	ND	2.7	mg/kg	SW846 6010B	10/11-10/12/00	DLC
		Dilution Factor: 10		Initial Wgt/Vol:	Final Wgt/Vol...: 0	
Barium	251	5.4	mg/kg	SW846 6010B	10/11-10/12/00	DLC
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol...: 0	
Cadmium	ND	0.54	mg/kg	SW846 6010B	10/11-10/12/00	DLC
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol...: 0	
Chromium	ND	10.8	mg/kg	SW846 6010B	10/11-10/12/00	DLC
		Dilution Factor: 10		Initial Wgt/Vol:	Final Wgt/Vol...: 0	
Silver	ND	1.1	mg/kg	SW846 6010B	10/11-10/12/00	DLC
		Dilution Factor: 1		Initial Wgt/Vol:	Final Wgt/Vol...: 0	

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: SOIL COMP

GC/MS Volatiles

Lot-Sample #....: B01300119-007    Work Order #....: DLCN6101    Matrix.....: SOLID  
Date Sampled....: 09/28/00    Date Received...: 09/30/00  
Prep Date.....: 10/11/00    Analysis Date...: 10/11/00  
Prep Batch #....: 0286175  
Dilution Factor: 1            Initial Wgt/Vol: 5.52 g    Final Wgt/Vol...: 5 mL  
% Moisture.....: 4.8            Method.....: SW846 8260B

PARAMETER	REPORTING		
	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	PERCENT	RECOVERY	LIMITS
	RECOVERY		
Bromofluorobenzene	73		(28 - 159)
1,2-Dichloroethane-d4	114		(51 - 168)
Toluene-d8	117		(66 - 152)
Dibromofluoromethane	114		(73 - 151)

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: SOIL COMP

GC Volatiles

Lot-Sample #....:	B0I300119-007	Work Order #....:	DLCN6103	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:	5.34 g	Final Wgt/Vol...:	5 mL
% Moisture.....:	4.8	Method.....:	SW846 8015B		

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
Gasoline Range Organics	ND	5.3	mg/kg
SURROGATE	PERCENT	RECOVERY	
	RECOVERY	LIMITS	(39 - 163)
4-Bromofluorobenzene	101		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: SOIL COMP

GC Semivolatiles

Lot-Sample #....: B01300119-007    Work Order #....: DLCN6102    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: 29.12 g    Final Wgt/Vol...: 1 mL  
% Moisture.....: 4.8            Method.....: SW846 8015B

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
Diesel Range Organics	47	11	mg/kg
SURROGATE	PERCENT	RECOVERY	LIMITS
	RECOVERY	(25 - 113)	
Tetratriacontane	66		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: SOIL COMP

## TOTAL Metals

Lot-Sample #...: B0I300119-007  
 Date Sampled...: 09/28/00  
 % Moisture....: 4.8

Matrix.....: SOLID

Date Received..: 09/30/00

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>			<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
		<u>LIMIT</u>	<u>UNITS</u>				
<b>Prep Batch #...: 0285375</b>							
Mercury	0.15	0.11	mg/kg		SW846 7471A	10/11/00	DLCN610C
Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol...: 0							
<b>Prep Batch #...: 0285418</b>							
Arsenic	1.2	0.26	mg/kg		SW846 6010B	10/11-10/12/00	DLCN6104
Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol...: 0							
Lead	3.4	0.26	mg/kg		SW846 6010B	10/11-10/12/00	DLCN6105
Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol...: 0							
Selenium	ND	0.26	mg/kg		SW846 6010B	10/11-10/12/00	DLCN6106
Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol...: 0							
Barium	38.9	5.3	mg/kg		SW846 6010B	10/11-10/12/00	DLCN6107
Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol...: 0							
Cadmium	ND	0.53	mg/kg		SW846 6010B	10/11-10/12/00	DLCN6108
Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol...: 0							
Chromium	31.6	1.1	mg/kg		SW846 6010B	10/11-10/12/00	DLCN6109
Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol...: 0							
Silver	ND	1.1	mg/kg		SW846 6010B	10/11-10/12/00	DLCN610A
Dilution Factor: 1 Initial Wgt/Vol: Final Wgt/Vol...: 0							

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

## CONOCO

Client Sample ID: B-3-1

## General Chemistry

Lot-Sample #....: B0I300119-013    Work Order #....: DLCND    Matrix.....: SOLID  
 Date Sampled...: 09/29/00    Date Received...: 09/30/00  
 % Moisture.....: 7.4

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

NOTE(S) :

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B-3-5

**GC/MS Volatiles**

Lot-Sample #....:	B0I300119-014	Work Order #....:	DLCNE101	Matrix.....:	SOLID
Date Sampled....:	09/29/00	Date Received..:	09/30/00		
Prep Date.....:	09/30/00	Analysis Date..:	10/11/00		
Prep Batch #....:	0286314				
Dilution Factor:	1	Initial Wgt/Vol:	5.65 g	Final Wgt/Vol..:	5 mL
% Moisture.....:	5.1	Method.....:	SW846 8260B		

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
Benzene	ND	260	ug/kg
Ethylbenzene	1800	260	ug/kg
Toluene	ND	260	ug/kg
Xylenes (total)	2700	260	ug/kg

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
1,2-Dichloroethane-d4	127	(57 - 132)
Bromofluorobenzene	118	(58 - 135)
Dibromofluoromethane	126	(57 - 130)
Toluene-d8	105	(61 - 133)

**NOTE(S) :**

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B-3-5

GC Volatiles

Lot-Sample #....: B01300119-014    Work Order #....: DLCNE103    Matrix.....: SOLID  
Date Sampled....: 09/29/00    Date Received...: 09/30/00  
Prep Date.....: 09/30/00    Analysis Date...: 10/09/00  
Prep Batch #....: 0280279  
Dilution Factor: 5            Initial Wgt/Vol: 5.27 g            Final Wgt/Vol...: 5 mL  
% Moisture.....: 5.1            Method.....: SW846 8015B

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
Gasoline Range Organics	150	26	mg/kg
SURROGATE	PERCENT	RECOVERY	LIMITS
	RECOVERY	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.

## CONOCO

Client Sample ID: B-3-5

## GC Semivolatiles

Lot-Sample #...: B01300119-014    Work Order #...: DLCNE102    Matrix.....: SOLID  
Date Sampled...: 09/29/00    Date Received...: 09/30/00  
Prep Date.....: 10/02/00    Analysis Date...: 10/11/00  
Prep Batch #...: 0276444  
Dilution Factor: 10    Initial Wgt/Vol: 29.8 g    Final Wgt/Vol.: 1 mL  
% Moisture.....: 5.1    Method.....: SW846 8015B

<u>PARAMETER</u>	<u>REPORTING</u>		
	<u>RESULT</u>	<u>LIMIT</u>	<u>UNITS</u>
Diesel Range Organics	1400	110	mg/kg
<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>	
	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.

CONOCO

Client Sample ID: B-3-5

## TOTAL Metals

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

Matrix.....: SOL

Date Sampled...: 09/29/00

Date Received..: 09/30/00

% Moisture.....: 5.1

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION- ANALYSIS DATE	WORK ORD:
		LIMIT	UNITS				
<b>Prep Batch #....: 0285375</b>							
Mercury	ND	0.11	mg/kg	SW846 7471A	Initial Wgt/Vol:	10/11/00	DLC:
Dilution Factor: 1 Final Wgt/Vol...: 0							
<b>Prep Batch #....: 0285418</b>							
Arsenic	1.1	0.26	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLC:
Dilution Factor: 1 Final Wgt/Vol...: 0							
Lead	2.2	0.26	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLC:
Dilution Factor: 1 Final Wgt/Vol...: 0							
Selenium	ND	0.26	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLC:
Dilution Factor: 1 Final Wgt/Vol...: 0							
Barium	27.8	5.3	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLC:
Dilution Factor: 1 Final Wgt/Vol...: 0							
Cadmium	ND	0.53	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLC:
Dilution Factor: 1 Final Wgt/Vol...: 0							
Chromium	2.6	1.1	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLC:
Dilution Factor: 1 Final Wgt/Vol...: 0							
Silver	ND	1.1	mg/kg	SW846 6010B	Initial Wgt/Vol:	10/11-10/12/00	DLC:
Dilution Factor: 1 Final Wgt/Vol...: 0							

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONOCO

Client Sample ID: B-3-5

## General Chemistry

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

Work Order #....: DLCNE

Matrix.....: SOLID

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

Date Received...: 09/30/00

% Moisture.....: 5.1

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREF BATCH
pH (solid)	8.6	0.10	No Units	SW846 9045A	09/30/00	0276
			Dilution Factor: 1	Initial Wgt/Vol:	Final Wgt/Vol...: 0	
Chloride	41.7	5.3	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276
			Dilution Factor: 1	Initial Wgt/Vol: 10 g	Final Wgt/Vol...: 100	
Fluoride	ND	1.1	mg/kg	MCAWW 340.2	10/06/00	0283
			Dilution Factor: 1	Initial Wgt/Vol: 20 g	Final Wgt/Vol...: 100	
Nitrate as N	ND	2.6	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276
			Dilution Factor: 1	Initial Wgt/Vol: 10 g	Final Wgt/Vol...: 100	
Percent Solids	94.9	0.10	%	MCAWW 160.3 MOD	10/04-10/05/00	0275
			Dilution Factor: 1	Initial Wgt/Vol:	Final Wgt/Vol...: 0	
Sulfate	7.8	5.3	mg/kg	MCAWW 300.0A	09/30-10/01/00	0276
			Dilution Factor: 1	Initial Wgt/Vol: 10 g	Final Wgt/Vol...: 100	

## NOTE(S) :

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

**METHOD BLANK REPORT****GC/MS Volatiles**

Client Lot #....: B0I300119  
MB Lot-Sample #: B0J120000-175  
  
Analysis Date..: 10/11/00  
Dilution Factor: 1

Work Order #....: DM1RH1AA

Matrix.....: SOLID

Prep Date.....: 10/11/00  
Prep Batch #....: 0286175  
Initial Wgt/Vol: 5 g

Final Wgt/Vol.: 5 mL

PARAMETER	REPORTING			
	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

SURROGATE	PERCENT	RECOVERY	
		RECOVERY	LIMITS
Bromofluorobenzene	93	(28	- 159)
1,2-Dichloroethane-d4	102	(51	- 168)
Toluene-d8	105	(66	- 152)
Dibromofluoromethane	99	(73	- 151)

**NOTE(S) :**

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

**METHOD: BLANK REPORT**

**GC/MS Volatiles**

Client Lot #....: B0I300119  
MB Lot-Sample #: B0J120000-314  
Analysis Date...: 10/11/00  
Dilution Factor: 1

Work Order #....: DM2GT1AA  
Prep Date.....: 09/30/00  
Prep Batch #....: 0286314  
Initial Wgt/Vol: 5 g

Matrix.....: SOLID

Final Wgt/Vol.: 5 mL

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
Benzene	ND	250	ug/kg
Ethylbenzene	ND	250	ug/kg
Toluene	ND	250	ug/kg
Xylenes (total)	ND	250	ug/kg

SURROGATE	PERCENT	RECOVERY
		LIMITS
1,2-Dichloroethane-d4	113	(57 - 132)
Bromofluorobenzene	104	(58 - 135)
Dibromofluoromethane	113	(57 - 130)
Toluene-d8	108	(61 - 133)

**NOTE(S) :**

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

**METHOD BLANK REPORT**

**GC Volatiles**

Client Lot #....: B0I300119  
MB Lot-Sample #: B0J060000-279  
Analysis Date...: 10/06/00  
Dilution Factor: 1

Work Order #....: DLNA9101  
Prep Date.....: 09/30/00  
Prep Batch #....: 0280279  
Initial Wgt/Vol: 5 g

Matrix.....: SOLID

Final Wgt/Vol.: 5 mL

PARAMETER	RESULT	REPORTING		METHOD
		LIMIT	UNITS	
Gasoline Range Organics	ND	5.0	mg/kg	SW846 8015B
SURROGATE	PERCENT	RECOVERY		
4-Bromofluorobenzene	RECOVERY	LIMITS		
	102	(39 - 163)		

**NOTE(S) :**

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

**METHOD BLANK REPORT**

**GC Semivolatiles**

Client Lot #...: B0I300119  
MB Lot-Sample #: B0J020000-444

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

Work Order #...: DLEEX101

Matrix.....: SOLID

Prep Date.....: 10/02/00  
Prep Batch #...: 0276444  
Initial Wgt/Vol: 30 g

Final Wgt/Vol.: 1 mL

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	METHOD
Diesel Range Organics	ND	10	mg/kg	SW846 8015B
SURROGATE	PERCENT	RECOVERY	LIMITS	
	RECOVERY	(25 - 113)		
Tetratriacontane	86			

**NOTE(S) :**

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

## METHOD BLANK REPORT

## TOTAL Metals

Client Lot #....: B0I300119

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
		LIMIT	UNITS				
<b>MB Lot-Sample #: B0J110000-375 Prep Batch #....: 0285375</b>							
Mercury	ND	0.10	mg/kg	SW846 7471A		10/11/00	DLXH5101
Dilution Factor: 1 Initial Wgt/Vol: 0 Final Wgt/Vol...: 0							
<b>MB Lot-Sample #: B0J110000-418 Prep Batch #....: 0285418</b>							
Arsenic	ND	0.25	mg/kg	SW846 6010B		10/11-10/12/00	DLXR1102
		Dilution Factor: 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) :

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

**METHOD BLANK REPORT**

**General Chemistry**

Client Lot #....: BOI300119

**Matrix.....: SOLID**

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	PREP	ANALYSIS DATE	BATCH #
		LIMIT	UNITS						
Chloride	ND	5.0	mg/kg		Work Order #: DLDKC101 MB Lot-Sample #: B0J020000-192 Dilution Factor: 1 Initial Wgt/Vol: 10 g Final Wgt/Vol.: 100 mL			09/30-10/01/00	0276192
Fluoride	ND	1.0	mg/kg		Work Order #: DLR2D101 MB Lot-Sample #: B0J090000-107 Dilution Factor: 1 Initial Wgt/Vol: 20 g Final Wgt/Vol.: 100 mL			10/06/00	0283107
Nitrate as N	ND	2.5	mg/kg		Work Order #: DLDKD101 MB Lot-Sample #: B0J020000-193 Dilution Factor: 1 Initial Wgt/Vol: 10 g Final Wgt/Vol.: 100 mL			09/30-10/01/00	0276193
Sulfate	ND	5.0	mg/kg		Work Order #: DLDKE101 MB Lot-Sample #: B0J020000-194 Dilution Factor: 1 Initial Wgt/Vol: 10 g Final Wgt/Vol.: 100 mL			09/30-10/01/00	0276194

**NOTE(S) :**

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

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## 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

<u>PARAMETER</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>RPD</u>	<u>LIMITS</u>	<u>METHOD</u>
	<u>RECOVERY</u>	<u>LIMITS</u>			
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

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
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.

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## 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

PARAMETER	PERCENT	RECOVERY	RPD		METHOD
	RECOVERY	LIMITS	RPD	LIMITS	
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

SURROGATE	PERCENT	RECOVERY	LIMITS	
	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.

Bold print denotes control parameters

## **LABORATORY CONTROL SAMPLE EVALUATION REPORT**

GC Volatiles

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
Gasoline Range Organics	115	(26 - 115)			SW846 8015B
	99	(26 - 115)	15	(0-25)	SW846 8015B
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>			
4-Bromofluorobenzene	110	(39 - 163)			
	98	(39 - 163)			

**NOTE (S) :**

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

**Bold print denotes control parameters**

**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

GC Semivolatiles

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

<u>SURROGATE</u>	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	86	(25 - 113)
	86	(25 - 113)

**NOTE (S) :**

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

**Bold print** denotes control parameters

**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

**TOTAL Metals**

**Client Lot #....:** B0I300119

**Matrix.....:** SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>LCS Lot-Sample#:</b> B0J110000-375 <b>Prep Batch #....:</b> 0285375					
Mercury	103	(90 - 110)	SW846 7471A	10/11/00	DLXH5102
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol...: 0
<b>LCS Lot-Sample#:</b> B0J110000-418 <b>Prep Batch #....:</b> 0285418					
Lead	99	(85 - 115)	SW846 6010B	10/11-10/12/00	DLXR110A
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol...: 0
Selenium	92	(85 - 115)	SW846 6010B	10/11-10/12/00	DLXR110C
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol...: 0
Arsenic	96	(85 - 115)	SW846 6010B	10/11-10/12/00	DLXR1109
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol...: 0
Barium	104	(85 - 115)	SW846 6010B	10/11-10/12/00	DLXR110D
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol...: 0
Cadmium	101	(85 - 115)	SW846 6010B	10/11-10/12/00	DLXR110E
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol...: 0
Chromium	99	(85 - 115)	SW846 6010B	10/11-10/12/00	DLXR110F
		Dilution Factor: 1		Initial Wgt/Vol: 0	Final Wgt/Vol...: 0
Silver	95	(85 - 115)	SW846 6010B	10/11-10/12/00	DLXR1108
		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.

**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

**General Chemistry**

**Lot-Sample #....: B0I300119**

**Matrix.....: SOLID**

PARAMETER	PERCENT	RECOVERY	RPD	METHOD	PREPARATION-	PREP
	RECOVERY	LIMITS	RPD		ANALYSIS DATE	BATCH #
pH (solid)			WO#:DLE4R101-LCS/DLE4R102-LCSD	LCS	Lot-Sample#: B0J020000-317	
	100	(99 - 101)		SW846 9045A	09/30/00	0276317
	100	(99 - 101) 0.28 (0-20)		SW846 9045A	09/30/00	0276317
		Dilution Factor: 1		Initial Wgt/Vol:		Final Wgt/Vol.: 0
Chloride			WO#:DLDKC102-LCS/DLDKC103-LCSD	LCS	Lot-Sample#: B0J020000-192	
	95	(85 - 110)		MCAWW 300.0A	09/30-10/01/00	0276192
	94	(85 - 110) 0.25 (0-10)		MCAWW 300.0A	09/30-10/01/00	0276192
		Dilution Factor: 1		Initial Wgt/Vol: 10 g		Final Wgt/Vol.: 100 mL
Fluoride			WO#:DLR2D102-LCS/DLR2D103-LCSD	LCS	Lot-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: 20 g		Final Wgt/Vol.: 100 mL
Nitrate as N			WO#:DLDKD102-LCS/DLDKD103-LCSD	LCS	Lot-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: 10 g		Final Wgt/Vol.: 100 mL
Sulfate			WO#:DLDKE102-LCS/DLDKE103-LCSD	LCS	Lot-Sample#: B0J020000-194	
	98	(82 - 115)		MCAWW 300.0A	09/30-10/01/00	0276194
	98	(82 - 115) 0.28 (0-10)		MCAWW 300.0A	09/30-10/01/00	0276194
		Dilution Factor: 1		Initial Wgt/Vol: 10 g		Final Wgt/Vol.: 100 mL

**NOTE (S) :**

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

**MATRIX SPIKE SAMPLE EVALUATION REPORT**

**TOTAL Metals**

**Client Lot #....:** BOI300119  
**Date Sampled....:** 09/28/00

**Matrix.....: SOLID**

**Date Received..:** 09/30/00

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>MS Lot-Sample #: BOI300119-001 Prep Batch #...: 0285418</b>							
Arsenic	88	(85 - 115)			SW846 6010B	10/11-10/12/00	DLCMW10M
	87	(85 - 115) 0.29 (0-10)			SW846 6010B	10/11-10/12/00	DLCMW10N
		Dilution Factor: 1			Initial Wgt/Vol: 0		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 Factor: 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 (0-10)			SW846 6010B	10/11-10/12/00	DLCMW10T
		Dilution Factor: 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 Factor: 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 Factor: 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 Factor: 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 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.

N Spiked analyte recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

NC The recovery and/or RPD were not calculated.

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

\* 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

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
<b>MS Lot-Sample #:</b> B0I290183-008 <b>Prep Batch #:</b> 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.

Results and reporting limits have been adjusted for dry weight.

**MATRIX SPIKE SAMPLE EVALUATION REPORT****General Chemistry**

Client Lot #...: BOI300119  
Date Sampled...: 09/29/00

Matrix.....: SOLID  
Date Received..: 09/30/00

PARAMETER	PERCENT	RECOVERY	RPD			PREPARATION-	PREP
	RECOVERY	LIMITS	RPD	LIMITS	METHOD	ANALYSIS DATE	BATCH #
Chloride			WO#: DLCNE10K-MS/DLCNE10L-MSD	MS	Lot-Sample #: BOI300119-014		
	108	(85 - 110)		MCAWW 300.0A		09/30-10/01/00	0276192
	109	(85 - 110)	0.31 (0-10)	MCAWW 300.0A		09/30-10/01/00	0276192
			Dilution Factor: 1		Initial Wgt/Vol: 10 g		Final Wgt/Vol.: 100 mL
Fluoride			WO#: DLCNC10M-MS/DLCNC10N-MSD	MS	Lot-Sample #: BOI300119-012		
	102	(90 - 110)		MCAWW 340.2		10/06/00	0283107
	100	(90 - 110)	0.71 (0-10)	MCAWW 340.2		10/06/00	0283107
			Dilution Factor: 1		Initial Wgt/Vol: 20 g		Final Wgt/Vol.: 100 mL
Nitrate as N			WO#: DLCNE10M-MS/DLCNE10N-MSD	MS	Lot-Sample #: BOI300119-014		
	100	(90 - 110)		MCAWW 300.0A		09/30-10/01/00	0276193
	100	(90 - 110)	0.04 (0-11)	MCAWW 300.0A		09/30-10/01/00	0276193
			Dilution Factor: 1		Initial Wgt/Vol: 10 g		Final Wgt/Vol.: 100 mL
Sulfate			WO#: DLCNE10P-MS/DLCNE10Q-MSD	MS	Lot-Sample #: BOI300119-014		
	101	(82 - 115)		MCAWW 300.0A		09/30-10/01/00	0276194
	102	(82 - 115)	0.46 (0-10)	MCAWW 300.0A		09/30-10/01/00	0276194
			Dilution Factor: 1		Initial Wgt/Vol: 10 g		Final Wgt/Vol.: 100 mL

**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.

## SAMPLE DUPLICATE EVALUATION REPORT

## General Chemistry

Client Lot #....: B0I300119

Work Order #....: DLCNE-SMP

DLCNE-DUP

Matrix.....: SOLID

Date Sampled...: 09/29/00

Date Received..: 09/30/00

% Moisture.....: 5.1

PARAM	RESULT	DUPPLICATE	RPD	LIMIT	METHOD	PREPARATION-	PREP
		RESULT				UNITS	ANALYSIS DATE
pH (solid)	8.6	No Units	0.0	(0-20)	SD Lot-Sample #: B0I300119-014 SW846 9045A	09/30/00	027631
		Dilution Factor:	1		Initial 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	027916
		Dilution Factor:	1		Initial Wgt/Vol:	Final Wgt/Vol...: 0	

# SEVERN TRENT LABS

## TAMPA LABORATORY CONDITION UPON RECEIPT FORM

Client (name or ID): Maxim

Project name: Malgan

Date received: 9/30/00

Lot number:

Received by: Carol McNulty

CUR completed by: Carol McNulty

### Cooler/Shipping Information:

Type:  Cooler  Box  Other (describe) \_\_\_\_\_

Cooler temperature: Identify the cooler and document the temperature blank or ice water measurement

Cooler ID/Track #					
Temp (°C)	<u>50</u>				
Cooler ID/Track #					
Temp (°C)					

### Other Information:

Any "NO" responses or discrepancies should be explained in the "Comments" section below. If an NCM was initiated, write the NCM number in the appropriate space.

#### CHECKLIST

YES NO NA NCM #

1. Were custody seals on shipping container(s) intact? Check "NA" if hand delivered. If "Yes," check one: <input type="checkbox"/> CUSTODY SEAL SAVED <input type="checkbox"/> UNABLE TO SAVE CUSTODY SEAL				
2. Were custody papers properly included with samples?				
3. Were custody papers properly filled out (ink, signed, match labels)?				
4. Did all bottles arrive in good condition (unbroken)?				
5. Were all bottle labels complete (sample #, date, signed, analysis, preservatives)?				
6. Were correct bottles used for the tests indicated?				
7. Were proper sample preservation techniques indicated?				
8. Were samples received within holding times? If "No," NCM required.				
9. Were all VOA bottles checked for the presence of air bubbles? If air bubbles were found, indicate in comment section.				
10. Were samples in direct contact with wet ice? If "No," check one: <input type="checkbox"/> NO ICE <input type="checkbox"/> BLUE ICE				
11. Were the samples received with a temperature blank? RECORD TEMPERATURE ABOVE If "No," check one: <input type="checkbox"/> Unable to determine temp <input type="checkbox"/> Taken from ice/water near samples				
12. Was the cooler temperature less than 6°C?				
13. Were sample pHs checked and recorded by Sample control? <i>NOTE: VOA samples are checked by laboratory analysts.</i>				
14. Were samples accepted into the laboratory?				

### Comments:

B-3-2 listed twice in COC, only one  
sample taken for B-3-2.

Project Manager initials/date reviewed:

10-2-00 NLR

**Chain of  
Custody Record**

OUA-4124 0797



Client Address	Maxim Technologies			Project Manager	Christie Yancey		Date	9/29/00	Chain of Custody Number	J-1560		
City	10601 Lomas NE Suite 100			Telephone Number (Area Code)/Fax Number	505 - 237 - 8440		Lab Number		Page	1 or 2		
Project Name	Albuquerque	State	NM	Zip Code	87112	Site Contact	Lab Contact					
Contract/Purchase Order/Quote No.				Carrier/Mail Number			Analysis (Attach list if more space is needed)					
(Containers for each sample may be combined on one line)			Date	Time	Matrix	Containers & Preservatives	Special Instructions/ Conditions of Receipt					
			Aqueous	Sed.	Soil	Unpres.					H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>
B1	9/28			9:15	X	X	X	X	X	X	X	8260
B2	9/28			10:53	X	X	X	X	X	X	X	GRO
B3	9/28			11:30	X	X	X	X	X	X	X	DRO
B4	9/28			13:20	X	X	X	X	X	X	X	metals
B5	9/28			14:50	X	X	X	X	X	X	X	chloride
B6	9/28			14:45	X	X	X	X	X	X	X	304
soil comp.	9/28			—	X	X	X	X	X	X	X	NO <sub>3</sub>
B7	9/28			15:50	X	X	X	X	X	X	X	F
B8	9/28			15:10	X	X	X	X	X	X	X	pH
B9	9/28			15:00	X	X	X	X	X	X	X	
B10	9/28			14:40	X	X	X	X	X	X	X	
B -3 - 2	9/29			05:00	X	X	X	X	X	X	X	
Sample Disposal												
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months    (A fee may be assessed if samples are retained longer than 3 months)												
Turn Around Time Required												
<input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 7 Days <input type="checkbox"/> 14 Days <input type="checkbox"/> 21 Days <input type="checkbox"/> Other _____												
OC Requirements (Specify)												
1. Relinquished By												
<p><i>J. H. Hart</i></p> <p>Date: 16/00 Time: 9/29/00</p>												
1. Received By												
<p><i>Carol Mc Nullity</i></p> <p>Date: 9/30/00 Time: 10:30</p>												
2. Received By												
3. Received By												
Comments												

**Chain of  
Custody Record**

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

**Certificate of  
Analysis**

**STL Austin**  
14046 Summit Drive  
Austin, Texas 78728

Tel: 512 244 0855  
Fax: 512 244 0160  
[www.stl-inc.com](http://www.stl-inc.com)

**SEVERN  
TRENT  
SERVICES**

**STL Austin**

1/114

**ANALYTICAL REPORT**

**PROJECT NO. MALIJAMAR NM**

**NG00001 Maljamar Gas Plant**

**Lot #: I1E230224**

**Clyde Yancey**

**Maxim Technologies  
10601 Lomas NE Ste 106  
Albuquerque, NM 87112**

**SEVERN TRENT LABORATORIES, INC.**

  
**Carla M. Butler**  
Project Manager

**June 19, 2001**

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories

STL Austin is a part of Severn Trent Laboratories, Inc.

## CASE NARRATIVE

IIE230224

Samples received in good condition within acceptable cooler temperature.

Because pH was not performed at the time of collection, the analysis is considered out of hold time.

Results that exceeded the calibration range are flagged with an E. Reanalysis to provide results within range are flagged with a D to indicate a dilution run.

For the 8260B analysis, some target compounds are non-detect at elevated reporting limits due to matrix required dilutions for samples 001, 002, and 004.

For the 8270 analysis of 004, two surrogate recoveries were out of control due to demonstrated matrix effect.

For the SPLP 8270 analysis of 006, surrogate recoveries for nitrobenzene-d5, 2-fluorobiphenyl, and 2,4,6-tribromophenol were slightly below recovery limits. All analytes non-detect.

Surrogate recoveries for the DRO analysis of samples 005 and 006 are reported as NC, DIL because dilutions or the presence of interfering analytes prevented calculations.

One surrogate recovery was out of control due to coelution for the 8021B analysis of sample 006

Ethylbenzene at 0.11 mg/L and toluene at 0.048 mg/L were detected in two analysis of the SPLP 8260 method blank. Results for these two compounds detected in associated analytical samples are flagged with a B. Note that the SPLP 8260 results are reported in mg/L and the SPLP 8270 results are reported in ug/L.

Recoveries of some compounds and/or surrogates were outside limits for:

8260B batch 1155372, Matrix Spike/Matrix Spike Duplicate of 001

8021B batch 1157484, Matrix Spike/Matrix Spike Duplicate of 006

8270C batch 1144522, Matrix Spike/Matrix Spike Duplicate of 004

Recoveries of some compounds were outside limits for the Matrix Spike/Matrix Spike Duplicate of the non-project specific QC samples for 8021B batch 1157433 and DRO batch 1144504.

Recoveries of mercury were reported as NC (not calculated) because the sample amount was greater than four times the spike amount for the Matrix Spike/Matrix Spike Duplicate of the non-project specific QC sample for batch 1151174.

## EXECUTIVE SUMMARY - Detection Highlights

I1E230224

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-1 05/21/01 19:40 001				
Arsenic	0.16	0.010	mg/L	SW846 6010B
Barium	1.2	0.20	mg/L	SW846 6010B
Calcium	178	5.0	mg/L	SW846 6010B
Chromium	0.055	0.0050	mg/L	SW846 6010B
Magnesium	42.2	5.0	mg/L	SW846 6010B
Sodium	114	5.0	mg/L	SW846 6010B
Lead	0.082	0.0030	mg/L	SW846 6010B
Phenol	17	10	ug/L	SW846 8270C
Benzene	1300 E	10	ug/L	SW846 8260B
Benzene	1600 D	50	ug/L	SW846 8260B
Ethylbenzene	95	10	ug/L	SW846 8260B
m-Xylene & p-Xylene	43	10	ug/L	SW846 8260B
pH (liquid)	7.4 H	0.10	No Units	MCAWW 150.1
Total Dissolved Solids	736	40.0	mg/L	MCAWW 160.1
Chloride	232	100	mg/L	MCAWW 300.0A
Sulfate	30.1	1.0	mg/L	MCAWW 300.0A
Bicarbonate	405	5.0	mg/L	MCAWW 310.1
Alkalinity				
Total Alkalinity	405	5.0	mg/L	MCAWW 310.1
MW-3 05/21/01 18:30 002				
Arsenic	0.40	0.010	mg/L	SW846 6010B
Barium	0.89	0.20	mg/L	SW846 6010B
Calcium	345	5.0	mg/L	SW846 6010B
Chromium	0.053	0.0050	mg/L	SW846 6010B
Magnesium	77.4	5.0	mg/L	SW846 6010B
Sodium	122	5.0	mg/L	SW846 6010B
Lead	0.0075	0.0030	mg/L	SW846 6010B
Phenol	65	10	ug/L	SW846 8270C
Benzene	31000 E	250	ug/L	SW846 8260B
Benzene	35000 D	1000	ug/L	SW846 8260B
Ethylbenzene	710	250	ug/L	SW846 8260B
Toluene	2200	250	ug/L	SW846 8260B
m-Xylene & p-Xylene	290	250	ug/L	SW846 8260B
pH (liquid)	7.0 H	0.10	No Units	MCAWW 150.1
Total Dissolved Solids	1670	40.0	mg/L	MCAWW 160.1
Chloride	590	100	mg/L	MCAWW 300.0A
Sulfate	25.5	1.0	mg/L	MCAWW 300.0A
Bicarbonate	430	5.0	mg/L	MCAWW 310.1
Alkalinity				

(Continued on next page)

## EXECUTIVE SUMMARY - Detection Highlights

I1E230224

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-3 05/21/01 18:30 002				
Total Alkalinity	430	5.0	mg/L	MCAWW 310.1
MW-2 05/21/01 17:30 004				
Arsenic	0.051	0.010	mg/L	SW846 6010B
Barium	1.3	0.20	mg/L	SW846 6010B
Calcium	327	5.0	mg/L	SW846 6010B
Chromium	0.024	0.0050	mg/L	SW846 6010B
Magnesium	57.9	5.0	mg/L	SW846 6010B
Sodium	64.1	5.0	mg/L	SW846 6010B
Lead	0.017	0.0030	mg/L	SW846 6010B
2-Methylnaphthalene	13	10	ug/L	SW846 8270C
Naphthalene	16	10	ug/L	SW846 8270C
Benzene	26000 E	250	ug/L	SW846 8260B
Benzene	30000 D	1000	ug/L	SW846 8260B
1,2-Dichloroethane	1100	250	ug/L	SW846 8260B
Ethylbenzene	630	250	ug/L	SW846 8260B
Toluene	8300	250	ug/L	SW846 8260B
o-Xylene	220	120	ug/L	SW846 8260B
m-Xylene & p-Xylene	670	250	ug/L	SW846 8260B
pH (liquid)	7.0 H	0.10	No Units	MCAWW 150.1
Total Dissolved Solids	1220	40.0	mg/L	MCAWW 160.1
Chloride	315	100	mg/L	MCAWW 300.0A
Sulfate	32.5	1.0	mg/L	MCAWW 300.0A
Bicarbonate	443	5.0	mg/L	MCAWW 310.1
Alkalinity				
Total Alkalinity	443	5.0	mg/L	MCAWW 310.1
B-12-B 6-9 05/21/01 13:00 005				
Diesel Range Organics	4200000	17000	ug/kg	SW846 8015B
Gasoline Range Organics	410000	9900	ug/kg	SW846 8015B
Benzene	340	99	ug/kg	SW846 8021B
Ethylbenzene	11000	99	ug/kg	SW846 8021B
Toluene	420	99	ug/kg	SW846 8021B
Xylenes (total)	10000	300	ug/kg	SW846 8021B
Benzene	0.015	0.0050	mg/L	SW846 8260B
n-Butylbenzene	0.0063	0.0050	mg/L	SW846 8260B
sec-Butylbenzene	0.0065	0.0050	mg/L	SW846 8260B
Ethylbenzene	0.028 B	0.0050	mg/L	SW846 8260B
Isopropylbenzene	0.031	0.0050	mg/L	SW846 8260B
Naphthalene	0.032	0.0050	mg/L	SW846 8260B

(Continued on next page)

## EXECUTIVE SUMMARY - Detection Highlights

I1E230224

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
B-12-B 6-9 05/21/01 13:00 005				
n-Propylbenzene	0.036	0.0050	mg/L	SW846 8260B
Toluene	0.022 B	0.0050	mg/L	SW846 8260B
1,2,4-Trimethylbenzene	0.085	0.0050	mg/L	SW846 8260B
1,3,5-Trimethylbenzene	0.021	0.0050	mg/L	SW846 8260B
Percent Moisture	13.0	0.50	%	ASTM D 2216-90
B-12-B 11-14 05/21/01 13:00 006				
Diesel Range Organics	1900000	17000	ug/kg	SW846 8015B
Gasoline Range Organics	17000	480	ug/kg	SW846 8015B
Xylenes (total)	950	14	ug/kg	SW846 8021B
Benzene	12	4.8	ug/kg	SW846 8021B
Ethylbenzene	870	4.8	ug/kg	SW846 8021B
Toluene	29	4.8	ug/kg	SW846 8021B
n-Butylbenzene	0.0059	0.0050	mg/L	SW846 8260B
Ethylbenzene	0.037 B	0.0050	mg/L	SW846 8260B
Isopropylbenzene	0.010	0.0050	mg/L	SW846 8260B
Naphthalene	0.012	0.0050	mg/L	SW846 8260B
n-Propylbenzene	0.015	0.0050	mg/L	SW846 8260B
1,2,4-Trimethylbenzene	0.023	0.0050	mg/L	SW846 8260B
1,3,5-Trimethylbenzene	0.0060	0.0050	mg/L	SW846 8260B
Percent Moisture	14.9	0.50	%	ASTM D 2216-90
B-13-B 05/21/01 13:00 007				
Diesel Range Organics	1600000	17000	ug/kg	SW846 8015B
Gasoline Range Organics	380000	9900	ug/kg	SW846 8015B
Benzene	110	99	ug/kg	SW846 8021B
Ethylbenzene	11000	99	ug/kg	SW846 8021B
Toluene	390	99	ug/kg	SW846 8021B
Xylenes (total)	12000	300	ug/kg	SW846 8021B
Benzene	0.0053	0.0050	mg/L	SW846 8260B
n-Butylbenzene	0.011	0.0050	mg/L	SW846 8260B
sec-Butylbenzene	0.0085	0.0050	mg/L	SW846 8260B
Ethylbenzene	0.18 B	0.0050	mg/L	SW846 8260B
Hexachlorobutadiene	0.011	0.0050	mg/L	SW846 8260B
Isopropylbenzene	0.025	0.0050	mg/L	SW846 8260B
p-Isopropyltoluene	0.0062	0.0050	mg/L	SW846 8260B
Naphthalene	0.033	0.0050	mg/L	SW846 8260B
n-Propylbenzene	0.031	0.0050	mg/L	SW846 8260B
Toluene	0.016 B	0.0050	mg/L	SW846 8260B
1,2,3-Trichlorobenzene	0.0070	0.0050	mg/L	SW846 8260B
1,2,4-Trichloro- benzene	0.0077	0.0050	mg/L	SW846 8260B

(Continued on next page)

## EXECUTIVE SUMMARY - Detection Highlights

IIE230224

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
B-13-B 05/21/01 13:00 007				
1, 2, 4-Trimethylbenzene	0.080	0.0050	mg/L	SW846 8260B
1, 3, 5-Trimethylbenzene	0.024	0.0050	mg/L	SW846 8260B
Percent Moisture	12.8	0.50	%	ASTM D 2216-90
B-11-B 05/21/01 13:00 008				
Diesel Range Organics	3100	1700	ug/kg	SW846 8015B
Percent Moisture	12.4	0.50	%	ASTM D 2216-90

## ANALYTICAL METHODS SUMMARY

I1E230224

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>
pH (Electrometric)	MCAWW 150.1
Alkalinity	MCAWW 310.1
Bicarbonate Alkalinity	MCAWW 310.1
Carbonate Alkalinity	MCAWW 310.1
Chloride	MCAWW 300.0A
Extractable Petroleum Hydrocarbons	SW846 8015B
Filterable Residue (TDS)	MCAWW 160.1
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A
Method for Determination of Water Content of Soil	ASTM D 2216-90
Nitrate as N	MCAWW 300.0A
Semivolatile Organic Compounds by GC/MS	SW846 8270C
Sulfate	MCAWW 300.0A
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Volatile Organics by GC/MS	SW846 8260B
Volatile Petroleum Hydrocarbons	SW846 8015B
Volatiles by GC	SW846 8021B

### References:

- ASTM Annual Book Of ASTM Standards.
- MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

## SAMPLE SUMMARY

I1E230224

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
EDTF6	001	MW-1	05/21/01	19:40
EDTGD	002	MW-3	05/21/01	18:30
EDTGG	003	TRIP BLANK	05/21/01	
EDTGJ	004	MW-2	05/21/01	17:30
EDTGQ	005	B-12-B 6-9	05/21/01	13:00
EDTHE	006	B-12-B 11-14	05/21/01	13:00
EDTHH	007	B-13-B	05/21/01	13:00
EDTHJ	008	B-11-B	05/21/01	13:00

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.

CONOCO INC.

Client Sample ID: B-12-B 6-9

GC Semivolatiles

Lot-Sample #....: I1E230224-005 Work Order #....: EDTGQ1AA Matrix.....: SOLID  
Date Sampled....: 05/21/01 13:00 Date Received...: 05/23/01 MS Run #.....: 1144278  
Prep Date.....: 05/24/01 Analysis Date...: 06/04/01  
Prep Batch #....: 1144504 Analysis Time...: 19:04  
Dilution Factor: 10  
% Moisture.....: 13 Method.....: SW846 8015B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Diesel Range Organics	4200000	17000	ug/kg
SURROGATE	PERCENT	RECOVERY	
o-Terphenyl	RECOVERY	LIMITS	
	NC,DIL	(40 - 144)	
Dotriacontane	NC,DIL	(42 - 159)	

NOTE(S) :

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

CONOCO INC.

Client Sample ID: B-12-B 6-9

GC Volatiles

Lot-Sample #....: I1E230224-005 Work Order #....: EDTGQ1AD Matrix.....: SOLID  
Date Sampled...: 05/21/01 13:00 Date Received...: 05/23/01 MS Run #.....: 1157220  
Prep Date.....: 06/04/01 Analysis Date...: 06/04/01  
Prep Batch #....: 1157448 Analysis Time...: 19:47  
Dilution Factor: 1.98  
% Moisture.....: 13 Method.....: SW846 8015B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Gasoline Range Organics	410000	9900	ug/kg
SURROGATE	PERCENT	RECOVERY	
	RECOVERY	LIMITS	
Bromofluorobenzene	140	(14 - 165)	

## CONOCO INC.

Client Sample ID: B-12-B 6-9

## SPLP GC/MS Volatiles

Lot-Sample #....: I1E230224-005 Work Order #....: EDTGQ1AF Matrix.....: SOLID  
 Date Sampled....: 05/21/01 13:00 Date Received...: 05/23/01 MS Run #.....: 1158057  
 Leach Date.....: 05/28/01 Prep Date.....: 06/05/01 Analysis Date...: 06/05/01  
 Leach Batch #..: P114904 Prep Batch #....: 1158166 Analysis Time...: 20:29  
 Dilution Factor: 1  
 % Moisture.....: 13 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Benzene	0.015	0.0050	mg/L
Bromobenzene	ND	0.0050	mg/L
Bromochloromethane	ND	0.0050	mg/L
Bromodichloromethane	ND	0.0050	mg/L
Bromoform	ND	0.0050	mg/L
Bromomethane	ND	0.010	mg/L
n-Butylbenzene	0.0063	0.0050	mg/L
sec-Butylbenzene	0.0065	0.0050	mg/L
tert-Butylbenzene	ND	0.0050	mg/L
Carbon tetrachloride	ND	0.0050	mg/L
Chlorobenzene	ND	0.0050	mg/L
Chlorodibromomethane	ND	0.0050	mg/L
Chloroethane	ND	0.010	mg/L
Chloroform	ND	0.0050	mg/L
Chloromethane	ND	0.010	mg/L
2-Chlorotoluene	ND	0.0050	mg/L
4-Chlorotoluene	ND	0.0050	mg/L
1,2-Dibromo-3-chloro-	ND	0.010	mg/L
propane			
1,2-Dibromoethane	ND	0.0050	mg/L
Dibromomethane	ND	0.0050	mg/L
1,2-Dichlorobenzene	ND	0.0050	mg/L
1,3-Dichlorobenzene	ND	0.0050	mg/L
1,4-Dichlorobenzene	ND	0.0050	mg/L
Dichlorodifluoromethane	ND	0.010	mg/L
1,1-Dichloroethane	ND	0.0050	mg/L
1,2-Dichloroethane	ND	0.0050	mg/L
1,1-Dichloroethene	ND	0.0050	mg/L
cis-1,2-Dichloroethene	ND	0.0050	mg/L
trans-1,2-Dichloroethene	ND	0.0050	mg/L
1,2-Dichloropropane	ND	0.0050	mg/L
1,3-Dichloropropane	ND	0.0050	mg/L
2,2-Dichloropropane	ND	0.0050	mg/L
1,1-Dichloropropene	ND	0.0050	mg/L
Ethylbenzene	0.028 B	0.0050	mg/L
Hexachlorobutadiene	ND	0.0050	mg/L
Isopropylbenzene	0.031	0.0050	mg/L
p-Isopropyltoluene	ND	0.0050	mg/L

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CONOCO INC.

Client Sample ID: B-12-B 6-9

SPLP GC/MS Volatiles

Lot-Sample #....: I1E230224-005 Work Order #....: EDTGQ1AF Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	0.0050	mg/L
Naphthalene	0.032	0.0050	mg/L
n-Propylbenzene	0.036	0.0050	mg/L
Styrene	ND	0.0050	mg/L
1,1,1,2-Tetrachloroethane	ND	0.0050	mg/L
1,1,2,2-Tetrachloroethane	ND	0.0050	mg/L
Tetrachloroethene	ND	0.0050	mg/L
Toluene	0.022 B	0.0050	mg/L
1,2,3-Trichlorobenzene	ND	0.0050	mg/L
1,2,4-Trichloro- benzene	ND	0.0050	mg/L
1,1,1-Trichloroethane	ND	0.0050	mg/L
1,1,2-Trichloroethane	ND	0.0050	mg/L
Trichloroethene	ND	0.0050	mg/L
Trichlorofluoromethane	ND	0.010	mg/L
1,2,3-Trichloropropane	ND	0.0050	mg/L
1,2,4-Trimethylbenzene	0.085	0.0050	mg/L
1,3,5-Trimethylbenzene	0.021	0.0050	mg/L
Vinyl chloride	ND	0.010	mg/L
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS	
4-Bromofluorobenzene	107	(42 - 183)	
Toluene-d8	99	(69 - 128)	
Dibromofluoromethane	94	(63 - 141)	
1,2-Dichloroethane-d4	94	(58 - 141)	

NOTE(S) :

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

## CONOCO INC.

Client Sample ID: B-12-B 6-9

## SPLP GC/MS Semivolatiles

Lot-Sample #....: I1E230224-005 Work Order #....: EDTGQ1AG Matrix.....: SOLID  
 Date Sampled...: 05/21/01 13:00 Date Received...: 05/23/01 MS Run #.....: 1152093  
 Leach Date.....: 05/29/01 Prep Date.....: 06/01/01 Analysis Date..: 06/07/01  
 Leach Batch #...: P115011 Prep Batch #....: 1152226 Analysis Time..: 01:22  
 Dilution Factor: 5  
 % Moisture.....: 13 Method.....: SW846 8270C

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Acenaphthene	ND	50	ug/L
Acenaphthylene	ND	50	ug/L
Anthracene	ND	50	ug/L
Benz(a)anthracene	ND	50	ug/L
Benzo(b)fluoranthene	ND	50	ug/L
Benzo(k)fluoranthene	ND	50	ug/L
Benzo(ghi)perylene	ND	50	ug/L
Benzo(a)pyrene	ND	50	ug/L
bis(2-Chloroethoxy) methane	ND	50	ug/L
bis(2-Chloroethyl)- ether	ND	50	ug/L
bis(2-Chloroisopropyl)- ether	ND	50	ug/L
bis(2-Ethylhexyl) phthalate	ND	50	ug/L
4-Bromophenyl phenyl ether	ND	50	ug/L
Butyl benzyl phthalate	ND	50	ug/L
4-Chloroaniline	ND	50	ug/L
4-Chloro-3-methylphenol	ND	50	ug/L
2-Chloronaphthalene	ND	50	ug/L
2-Chlorophenol	ND	50	ug/L
4-Chlorophenyl phenyl ether	ND	50	ug/L
Chrysene	ND	50	ug/L
Dibenz(a,h)anthracene	ND	50	ug/L
Dibenzofuran	ND	50	ug/L
Di-n-butyl phthalate	ND	50	ug/L
1,2-Dichlorobenzene	ND	50	ug/L
1,3-Dichlorobenzene	ND	50	ug/L
1,4-Dichlorobenzene	ND	50	ug/L
3,3'-Dichlorobenzidine	ND	250	ug/L
2,4-Dichlorophenol	ND	50	ug/L
Diethyl phthalate	ND	50	ug/L
2,4-Dimethylphenol	ND	50	ug/L
Dimethyl phthalate	ND	50	ug/L
4,6-Dinitro- 2-methylphenol	ND	250	ug/L

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CONOCO INC.

Client Sample ID: B-12-B 6-9

## SPLP GC/MS Semivolatiles

Lot-Sample #...: I1E230224-005 Work Order #...: EDTGQ1AG Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
2,4-Dinitrophenol	ND	250	ug/L
2,4-Dinitrotoluene	ND	50	ug/L
2,6-Dinitrotoluene	ND	50	ug/L
Di-n-octyl phthalate	ND	50	ug/L
Fluoranthene	ND	50	ug/L
Fluorene	ND	50	ug/L
Hexachlorobenzene	ND	50	ug/L
Hexachlorobutadiene	ND	50	ug/L
Hexachlorocyclopenta-diene	ND	250	ug/L
Hexachloroethane	ND	50	ug/L
Indeno(1,2,3-cd)pyrene	ND	50	ug/L
Isophorone	ND	50	ug/L
2-Methylnaphthalene	ND	50	ug/L
2-Methylphenol	ND	50	ug/L
4-Methylphenol	ND	50	ug/L
Naphthalene	ND	50	ug/L
2-Nitroaniline	ND	250	ug/L
3-Nitroaniline	ND	250	ug/L
4-Nitroaniline	ND	250	ug/L
Nitrobenzene	ND	50	ug/L
2-Nitrophenol	ND	50	ug/L
4-Nitrophenol	ND	250	ug/L
N-Nitrosodiphenylamine	ND	50	ug/L
N-Nitrosodi-n-propyl-amine	ND	50	ug/L
Pentachlorophenol	ND	250	ug/L
Phenanthrene	ND	50	ug/L
Phenol	ND	50	ug/L
Pyrene	ND	50	ug/L
1,2,4-Trichlorobenzene	ND	50	ug/L
2,4,5-Trichlorophenol	ND	50	ug/L
2,4,6-Trichlorophenol	ND	50	ug/L

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Nitrobenzene-d5	79	(58 - 125)
2-Fluorobiphenyl	80	(58 - 118)
Terphenyl-d14	96	(47 - 142)
2-Fluorophenol	78	(48 - 116)
Phenol-d5	81	(51 - 122)
2,4,6-Tribromophenol	78	(52 - 137)

(Continued on next page)

CONOCO INC.

Client Sample ID: B-12-B 6-9

SPLP GC/MS Semivolatiles

Lot-Sample #....: I1E230224-005 Work Order #....: EDTGQ1AG Matrix.....: SOLID

NOTE (S) :

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

CONOCO INC.

Client Sample ID: B-12-B 6-9

GC Volatiles

Lot-Sample #....: I1E230224-005 Work Order #....: EDTGQ1AC Matrix.....: SOLID  
Date Sampled....: 05/21/01 13:00 Date Received...: 05/23/01 MS Run #.....: 1157250  
Prep Date.....: 06/04/01 Analysis Date...: 06/04/01  
Prep Batch #....: 1157484 Analysis Time...: 19:47  
Dilution Factor: 1.98  
% Moisture.....: 13 Method.....: SW846 8021B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Benzene	340	99	ug/kg
Ethylbenzene	11000	99	ug/kg
Toluene	420	99	ug/kg
Xylenes (total)	10000	300	ug/kg

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Bromofluorobenzene	91	(70 - 130)

## CONOCO INC.

Client Sample ID: B-12-B 11-14

## GC Semivolatiles

Lot-Sample #....: I1E230224-006 Work Order #....: EDTHE1AA Matrix.....: SOLID  
Date Sampled....: 05/21/01 13:00 Date Received...: 05/23/01 MS Run #.....: 1144278  
Prep Date.....: 05/24/01 Analysis Date...: 06/04/01  
Prep Batch #....: 1144504 Analysis Time...: 19:48  
Dilution Factor: 10  
% Moisture.....: 15 Method.....: SW846 8015B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Diesel Range Organics	1900000	17000	ug/kg
SURROGATE	PERCENT	RECOVERY	LIMITS
o-Terphenyl	NC, DIL	(40 - 144)	
Dotriacontane	NC, DIL	(42 - 159)	

NOTE(S) :

NC The recovery and/or RPD were not calculated.

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

CONOCO INC.

Client Sample ID: B-12-B 11-14

GC Volatiles

Lot-Sample #....: I1E230224-006 Work Order #....: EDTHE1AD Matrix.....: SOLID  
Date Sampled...: 05/21/01 13:00 Date Received...: 05/23/01  
Prep Date.....: 06/04/01 Analysis Date...: 06/04/01  
Prep Batch #....: 1157435  
Dilution Factor: 4.76  
% Moisture.....: 15 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Gasoline Range Organics	17000	480	ug/kg
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	
Bromofluorobenzene	74	(14 - 165)	

## CONOCO INC.

Client Sample ID: B-12-B 11-14

## SPLP GC/MS Volatiles

Lot-Sample #....: I1E230224-006 Work Order #....: EDTHE1AF Matrix.....: SOLID  
 Date Sampled....: 05/21/01 13:00 Date Received...: 05/23/01 MS Run #.....: 1158057  
 Leach Date.....: 05/28/01 Prep Date.....: 06/05/01 Analysis Date...: 06/05/01  
 Leach Batch #...: P114904 Prep Batch #....: 1158166 Analysis Time...: 20:58  
 Dilution Factor: 1  
 % Moisture.....: 15 Method.....: SW846 8260B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	<u>LIMIT</u>	<u>UNITS</u>
Benzene	ND		0.0050	mg/L
Bromobenzene	ND		0.0050	mg/L
Bromochloromethane	ND		0.0050	mg/L
Bromodichloromethane	ND		0.0050	mg/L
Bromoform	ND		0.0050	mg/L
Bromomethane	ND		0.010	mg/L
n-Butylbenzene	0.0059		0.0050	mg/L
sec-Butylbenzene	ND		0.0050	mg/L
tert-Butylbenzene	ND		0.0050	mg/L
Carbon tetrachloride	ND		0.0050	mg/L
Chlorobenzene	ND		0.0050	mg/L
Chlorodibromomethane	ND		0.0050	mg/L
Chloroethane	ND		0.010	mg/L
Chloroform	ND		0.0050	mg/L
Chloromethane	ND		0.010	mg/L
2-Chlorotoluene	ND		0.0050	mg/L
4-Chlorotoluene	ND		0.0050	mg/L
1,2-Dibromo-3-chloro-	ND		0.010	mg/L
propane				
1,2-Dibromoethane	ND		0.0050	mg/L
Dibromomethane	ND		0.0050	mg/L
1,2-Dichlorobenzene	ND		0.0050	mg/L
1,3-Dichlorobenzene	ND		0.0050	mg/L
1,4-Dichlorobenzene	ND		0.0050	mg/L
Dichlorodifluoromethane	ND		0.010	mg/L
1,1-Dichloroethane	ND		0.0050	mg/L
1,2-Dichloroethane	ND		0.0050	mg/L
1,1-Dichloroethene	ND		0.0050	mg/L
cis-1,2-Dichloroethene	ND		0.0050	mg/L
trans-1,2-Dichloroethene	ND		0.0050	mg/L
1,2-Dichloropropane	ND		0.0050	mg/L
1,3-Dichloropropane	ND		0.0050	mg/L
2,2-Dichloropropane	ND		0.0050	mg/L
1,1-Dichloropropene	ND		0.0050	mg/L
Ethylbenzene	0.037 B		0.0050	mg/L
Hexachlorobutadiene	ND		0.0050	mg/L
Isopropylbenzene	0.010		0.0050	mg/L
p-Isopropyltoluene	ND		0.0050	mg/L

(Continued on next page)

CONOCO INC.

Client Sample ID: B-12-B 11-14

SPLP GC/MS Volatiles

Lot-Sample #...: IIE230224-006 Work Order #...: EDTHE1AF Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	0.0050	mg/L
Naphthalene	0.012	0.0050	mg/L
n-Propylbenzene	0.015	0.0050	mg/L
Styrene	ND	0.0050	mg/L
1,1,1,2-Tetrachloroethane	ND	0.0050	mg/L
1,1,2,2-Tetrachloroethane	ND	0.0050	mg/L
Tetrachloroethene	ND	0.0050	mg/L
Toluene	ND	0.0050	mg/L
1,2,3-Trichlorobenzene	ND	0.0050	mg/L
1,2,4-Trichloro- benzene	ND	0.0050	mg/L
1,1,1-Trichloroethane	ND	0.0050	mg/L
1,1,2-Trichloroethane	ND	0.0050	mg/L
Trichloroethene	ND	0.0050	mg/L
Trichlorofluoromethane	ND	0.010	mg/L
1,2,3-Trichloropropane	ND	0.0050	mg/L
1,2,4-Trimethylbenzene	0.023	0.0050	mg/L
1,3,5-Trimethylbenzene	0.0060	0.0050	mg/L
Vinyl chloride	ND	0.010	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	100	(42 - 183)
Toluene-d8	96	(69 - 128)
Dibromofluoromethane	89	(63 - 141)
1,2-Dichloroethane-d4	89	(58 - 141)

NOTE(S) :

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

## CONOCO INC.

Client Sample ID: B-12-B 11-14

## SPLP GC/MS Semivolatiles

Lot-Sample #....: I1E230224-006 Work Order #....: EDTHE1AG Matrix.....: SOLID  
 Date Sampled....: 05/21/01 13:00 Date Received...: 05/23/01 MS Run #.....: 1152093  
 Leach Date.....: 05/29/01 Prep Date.....: 06/01/01 Analysis Date..: 06/08/01  
 Leach Batch #...: P115011 Prep Batch #....: 1152226 Analysis Time..: 22:41  
 Dilution Factor: 5  
 % Moisture.....: 15 Method.....: SW846 8270C

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Acenaphthene	ND	50	ug/L
Acenaphthylene	ND	50	ug/L
Anthracene	ND	50	ug/L
Benz(a)anthracene	ND	50	ug/L
Benzo(b)fluoranthene	ND	50	ug/L
Benzo(k)fluoranthene	ND	50	ug/L
Benzo(ghi)perylene	ND	50	ug/L
Benzo(a)pyrene	ND	50	ug/L
bis(2-Chloroethoxy) methane	ND	50	ug/L
bis(2-Chloroethyl)- ether	ND	50	ug/L
bis(2-Chloroisopropyl) ether	ND	50	ug/L
bis(2-Ethylhexyl) phthalate	ND	50	ug/L
4-Bromophenyl phenyl ether	ND	50	ug/L
Butyl benzyl phthalate	ND	50	ug/L
4-Chloroaniline	ND	50	ug/L
4-Chloro-3-methylphenol	ND	50	ug/L
2-Chloronaphthalene	ND	50	ug/L
2-Chlorophenol	ND	50	ug/L
4-Chlorophenyl phenyl ether	ND	50	ug/L
Chrysene	ND	50	ug/L
Dibenz(a,h)anthracene	ND	50	ug/L
Dibenzo-furan	ND	50	ug/L
Di-n-butyl phthalate	ND	50	ug/L
1,2-Dichlorobenzene	ND	50	ug/L
1,3-Dichlorobenzene	ND	50	ug/L
1,4-Dichlorobenzene	ND	50	ug/L
3,3'-Dichlorobenzidine	ND	250	ug/L
2,4-Dichlorophenol	ND	50	ug/L
Diethyl phthalate	ND	50	ug/L
2,4-Dimethylphenol	ND	50	ug/L
Dimethyl phthalate	ND	50	ug/L
4,6-Dinitro- 2-methylphenol	ND	250	ug/L

(Continued on next page)

## CONOCO INC.

Client Sample ID: B-12-B 11-14

## SPLP GC/MS Semivolatiles

Lot-Sample #...: I1E230224-006 Work Order #...: EDTHE1AG Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
2,4-Dinitrophenol	ND	250	ug/L
2,4-Dinitrotoluene	ND	50	ug/L
2,6-Dinitrotoluene	ND	50	ug/L
Di-n-octyl phthalate	ND	50	ug/L
Fluoranthene	ND	50	ug/L
Fluorene	ND	50	ug/L
Hexachlorobenzene	ND	50	ug/L
Hexachlorobutadiene	ND	50	ug/L
Hexachlorocyclopenta- diene	ND	250	ug/L
Hexachloroethane	ND	50	ug/L
Indeno(1,2,3-cd)pyrene	ND	50	ug/L
Isophorone	ND	50	ug/L
2-Methylnaphthalene	ND	50	ug/L
2-Methylphenol	ND	50	ug/L
4-Methylphenol	ND	50	ug/L
Naphthalene	ND	50	ug/L
2-Nitroaniline	ND	250	ug/L
3-Nitroaniline	ND	250	ug/L
4-Nitroaniline	ND	250	ug/L
Nitrobenzene	ND	50	ug/L
2-Nitrophenol	ND	50	ug/L
4-Nitrophenol	ND	250	ug/L
N-Nitrosodiphenylamine	ND	50	ug/L
N-Nitrosodi-n-propyl- amine	ND	50	ug/L
Pentachlorophenol	ND	250	ug/L
Phenanthrene	ND	50	ug/L
Phenol	ND	50	ug/L
Pyrene	ND	50	ug/L
1,2,4-Trichloro- benzene	ND	50	ug/L
2,4,5-Trichloro- phenol	ND	50	ug/L
2,4,6-Trichloro- phenol	ND	50	ug/L

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Nitrobenzene-d5	50 *	(58 - 125)
2-Fluorobiphenyl	49 *	(58 - 118)
Terphenyl-d14	59	(47 - 142)
2-Fluorophenol	48	(48 - 116)
Phenol-d5	52	(51 - 122)
2,4,6-Tribromophenol	46 *	(52 - 137)

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CONOCO INC.

Client Sample ID: B-12-B 11-14

SPLP GC/MS Semivolatiles

Lot-Sample #...: I1E230224-006 Work Order #...: EDTHE1AG Matrix.....: SOLID

NOTE (S) :

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

\* Surrogate recovery is outside stated control limits.

CONOCO INC.

Client Sample ID: B-12-B 11-14

GC Volatiles

Lot-Sample #....: I1E230224-006 Work Order #....: EDTHE1AC Matrix.....: SOLID  
Date Sampled....: 05/21/01 13:00 Date Received...: 05/23/01 MS Run #.....: 1157212  
Prep Date.....: 06/04/01 Analysis Date...: 06/04/01  
Prep Batch #....: 1157433 Analysis Time...: 19:00  
Dilution Factor: 4.76  
% Moisture.....: 15 Method.....: SW846 8021B

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
Benzene	12	4.8	ug/kg
Ethylbenzene	870	4.8	ug/kg
Toluene	29	4.8	ug/kg
Xylenes (total)	950	14	ug/kg

SURROGATE	PERCENT RECOVERY		RECOVERY
	RECOVERY	LIMITS	LIMITS
Bromofluorobenzene	80	(70 - 130)	
a,a,a-Trifluorotoluene (TFT)	1370 *	(40 - 159)	

NOTE(S) :

\* Surrogate recovery is outside stated control limits.

Surrogate a,a,a-TFT high due to coelution.

CONOCO INC.

Client Sample ID: B-13-B

GC Semivolatiles

Lot-Sample #....: I1E230224-007 Work Order #....: EDTHH1AA  
Date Sampled....: 05/21/01 13:00 Date Received...: 05/23/01  
Prep Date.....: 05/24/01 Analysis Date...: 06/04/01  
Prep Batch #....: 1144504 Analysis Time...: 20:31  
Dilution Factor: 10  
% Moisture.....: 13 Method.....: SW846 8015B

Matrix.....: SOLID  
MS Run #.....: 1144278

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Diesel Range Organics	1600000	17000	ug/kg
SURROGATE	PERCENT RECOVERY	RECOVERY	
		LIMITS	
o-Terphenyl	114	(40 - 144)	
Dotriacontane	142	(42 - 159)	

CONOCO INC.

Client Sample ID: B-13-B

GC Volatiles

Lot-Sample #....: I1E230224-007 Work Order #....: EDTHH1AD  
Date Sampled....: 05/21/01 13:00 Date Received...: 05/23/01  
Prep Date.....: 06/04/01 Analysis Date...: 06/04/01  
Prep Batch #....: 1157448 Analysis Time...: 20:27  
Dilution Factor: 1.98  
% Moisture.....: 13 Method.....: SW846 8015B

Matrix.....: SOLID  
MS Run #....: 1157220

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
Gasoline Range Organics	380000	9900	ug/kg
SURROGATE	PERCENT	RECOVERY	LIMITS
	RECOVERY	(14 - 165)	
Bromofluorobenzene	156		

## CONOCO INC.

Client Sample ID: B-13-B

## SPLP GC/MS Volatiles

Lot-Sample #....: I1E230224-007 Work Order #....: EDTHH1AF Matrix.....: SOLID  
 Date Sampled....: 05/21/01 13:00 Date Received...: 05/23/01 MS Run #.....: 1158057  
 Leach Date.....: 05/28/01 Prep Date.....: 06/05/01 Analysis Date...: 06/05/01  
 Leach Batch #...: P114904 Prep Batch #....: 1158166 Analysis Time...: 22:25  
 Dilution Factor: 1  
 % Moisture.....: 13 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Benzene	0.0053	0.0050	mg/L
Bromobenzene	ND	0.0050	mg/L
Bromochloromethane	ND	0.0050	mg/L
Bromodichloromethane	ND	0.0050	mg/L
Bromoform	ND	0.0050	mg/L
Bromomethane	ND	0.010	mg/L
n-Butylbenzene	0.011	0.0050	mg/L
sec-Butylbenzene	0.0085	0.0050	mg/L
tert-Butylbenzene	ND	0.0050	mg/L
Carbon tetrachloride	ND	0.0050	mg/L
Chlorobenzene	ND	0.0050	mg/L
Chlorodibromomethane	ND	0.0050	mg/L
Chloroethane	ND	0.010	mg/L
Chloroform	ND	0.0050	mg/L
Chloromethane	ND	0.010	mg/L
2-Chlorotoluene	ND	0.0050	mg/L
4-Chlorotoluene	ND	0.0050	mg/L
1,2-Dibromo-3-chloro-propane	ND	0.010	mg/L
1,2-Dibromoethane	ND	0.0050	mg/L
Dibromomethane	ND	0.0050	mg/L
1,2-Dichlorobenzene	ND	0.0050	mg/L
1,3-Dichlorobenzene	ND	0.0050	mg/L
1,4-Dichlorobenzene	ND	0.0050	mg/L
Dichlorodifluoromethane	ND	0.010	mg/L
1,1-Dichloroethane	ND	0.0050	mg/L
1,2-Dichloroethane	ND	0.0050	mg/L
1,1-Dichloroethene	ND	0.0050	mg/L
cis-1,2-Dichloroethene	ND	0.0050	mg/L
trans-1,2-Dichloroethene	ND	0.0050	mg/L
1,2-Dichloropropane	ND	0.0050	mg/L
1,3-Dichloropropane	ND	0.0050	mg/L
2,2-Dichloropropane	ND	0.0050	mg/L
1,1-Dichloropropene	ND	0.0050	mg/L
Ethylbenzene	0.18 B	0.0050	mg/L
Hexachlorobutadiene	0.011	0.0050	mg/L
Isopropylbenzene	0.025	0.0050	mg/L
p-Isopropyltoluene	0.0062	0.0050	mg/L

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CONOCO INC.

Client Sample ID: B-13-B

SPLP GC/MS Volatiles

Lot-Sample #...: IIE230224-007 Work Order #...: EDTHH1AF Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Methylene chloride	ND	0.0050	mg/L
Naphthalene	0.033	0.0050	mg/L
n-Propylbenzene	0.031	0.0050	mg/L
Styrene	ND	0.0050	mg/L
1,1,1,2-Tetrachloroethane	ND	0.0050	mg/L
1,1,2,2-Tetrachloroethane	ND	0.0050	mg/L
Tetrachloroethene	ND	0.0050	mg/L
Toluene	0.016 B	0.0050	mg/L
1,2,3-Trichlorobenzene	0.0070	0.0050	mg/L
1,2,4-Trichloro- benzene	0.0077	0.0050	mg/L
1,1,1-Trichloroethane	ND	0.0050	mg/L
1,1,2-Trichloroethane	ND	0.0050	mg/L
Trichloroethene	ND	0.0050	mg/L
Trichlorofluoromethane	ND	0.010	mg/L
1,2,3-Trichloropropane	ND	0.0050	mg/L
1,2,4-Trimethylbenzene	0.080	0.0050	mg/L
1,3,5-Trimethylbenzene	0.024	0.0050	mg/L
Vinyl chloride	ND	0.010	mg/L
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	
4-Bromofluorobenzene	101	(42 - 183)	
Toluene-d8	94	(69 - 128)	
Dibromofluoromethane	85	(63 - 141)	
1,2-Dichloroethane-d4	88	(58 - 141)	

NOTE(S) :

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

## CONOCO INC.

Client Sample ID: B-13-B

## SPLP GC/MS Semivolatiles

Lot-Sample #....: I1E230224-007 Work Order #....: EDTHH1AG Matrix.....: SOLID  
 Date Sampled....: 05/21/01 13:00 Date Received...: 05/23/01 MS Run #.....: 1152093  
 Leach Date.....: 05/29/01 Prep Date.....: 06/01/01 Analysis Date..: 06/18/01  
 Leach Batch #...: P115011 Prep Batch #....: 1152226 Analysis Time..: 14:08  
 Dilution Factor: 5  
 % Moisture.....: 13 Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	50	ug/L
Acenaphthylene	ND	50	ug/L
Anthracene	ND	50	ug/L
Benz(a)anthracene	ND	50	ug/L
Benzo(b)fluoranthene	ND	50	ug/L
Benzo(k)fluoranthene	ND	50	ug/L
Benzo(ghi)perylene	ND	50	ug/L
Benzo(a)pyrene	ND	50	ug/L
bis(2-Chloroethoxy) methane	ND	50	ug/L
bis(2-Chloroethyl)- ether	ND	50	ug/L
bis(2-Chloroisopropyl) ether	ND	50	ug/L
bis(2-Ethylhexyl) phthalate	ND	50	ug/L
4-Bromophenyl phenyl ether	ND	50	ug/L
Butyl benzyl phthalate	ND	50	ug/L
4-Chloroaniline	ND	50	ug/L
4-Chloro-3-methylphenol	ND	50	ug/L
2-Chloronaphthalene	ND	50	ug/L
2-Chlorophenol	ND	50	ug/L
4-Chlorophenyl phenyl ether	ND	50	ug/L
Chrysene	ND	50	ug/L
Dibenz(a, h) anthracene	ND	50	ug/L
Dibenzofuran	ND	50	ug/L
Di-n-butyl phthalate	ND	50	ug/L
1, 2-Dichlorobenzene	ND	50	ug/L
1, 3-Dichlorobenzene	ND	50	ug/L
1, 4-Dichlorobenzene	ND	50	ug/L
3, 3'-Dichlorobenzidine	ND	250	ug/L
2, 4-Dichlorophenol	ND	50	ug/L
Diethyl phthalate	ND	50	ug/L
2, 4-Dimethylphenol	ND	50	ug/L
Dimethyl phthalate	ND	50	ug/L
4, 6-Dinitro- 2-methylphenol	ND	250	ug/L

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## CONOCO INC.

Client Sample ID: B-13-B

SPLP GC/MS Semivolatiles

Lot-Sample #....: I1E230224-007 Work Order #....: EDTHH1AG Matrix.....: SOLID

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
2,4-Dinitrophenol	ND	250	ug/L
2,4-Dinitrotoluene	ND	50	ug/L
2,6-Dinitrotoluene	ND	50	ug/L
Di-n-octyl phthalate	ND	50	ug/L
Fluoranthene	ND	50	ug/L
Fluorene	ND	50	ug/L
Hexachlorobenzene	ND	50	ug/L
Hexachlorobutadiene	ND	50	ug/L
Hexachlorocyclopenta-diene	ND	250	ug/L
Hexachloroethane	ND	50	ug/L
Indeno(1,2,3-cd)pyrene	ND	50	ug/L
Isophorone	ND	50	ug/L
2-Methylnaphthalene	ND	50	ug/L
2-Methylphenol	ND	50	ug/L
4-Methylphenol	ND	50	ug/L
Naphthalene	ND	50	ug/L
2-Nitroaniline	ND	250	ug/L
3-Nitroaniline	ND	250	ug/L
4-Nitroaniline	ND	250	ug/L
Nitrobenzene	ND	50	ug/L
2-Nitrophenol	ND	50	ug/L
4-Nitrophenol	ND	250	ug/L
N-Nitrosodiphenylamine	ND	50	ug/L
N-Nitrosodi-n-propyl-amine	ND	50	ug/L
Pentachlorophenol	ND	250	ug/L
Phenanthrene	ND	50	ug/L
Phenol	ND	50	ug/L
Pyrene	ND	50	ug/L
1,2,4-Trichlorobenzene	ND	50	ug/L
2,4,5-Trichlorophenol	ND	50	ug/L
2,4,6-Trichlorophenol	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY	
		LIMITS	
Nitrobenzene-d5	81	(58	- 125)
2-Fluorobiphenyl	81	(58	- 118)
Terphenyl-d14	71	(47	- 142)
2-Fluorophenol	79	(48	- 116)
Phenol-d5	84	(51	- 122)
2,4,6-Tribromophenol	94	(52	- 137)

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CONOCO INC.

Client Sample ID: B-13-B

SPLP GC/MS Semivolatiles

Lot-Sample #...: I1E230224-007 Work Order #...: EDTHH1AG Matrix.....: SOLID

NOTE(S) :

Analysis performed in accordance with USEPA Synthetic Precipitation Leaching Procedure Method 1312

CONOCO INC.

Client Sample ID: B-13-B

GC Volatiles

Lot-Sample #....: I1E230224-007 Work Order #....: EDTHH1AC Matrix.....: SOLID  
Date Sampled....: 05/21/01 13:00 Date Received...: 05/23/01 MS Run #.....: 1157250  
Prep Date.....: 06/04/01 Analysis Date...: 06/04/01  
Prep Batch #....: 1157484 Analysis Time...: 20:27  
Dilution Factor: 1.98  
% Moisture.....: 13 Method.....: SW846 8021B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Benzene	110	99	ug/kg
Ethylbenzene	11000	99	ug/kg
Toluene	390	99	ug/kg
Xylenes (total)	12000	300	ug/kg

SURROGATE	PERCENT RECOVERY	RECOVERY	
		LIMITS	(70 - 130)
Bromofluorobenzene	96		

CONOCO INC.

Client Sample ID: B-11-B

GC Semivolatiles

Lot-Sample #....: I1E230224-008 Work Order #....: EDTHJ1AA Matrix.....: SOLID  
Date Sampled....: 05/21/01 13:00 Date Received...: 05/23/01 MS Run #.....: 1144278  
Prep Date.....: 05/24/01 Analysis Date...: 06/04/01  
Prep Batch #....: 1144504 Analysis Time...: 18:21  
Dilution Factor: 1  
% Moisture.....: 12 Method.....: SW846 8015B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Diesel Range Organics	3100	1700	ug/kg
SURROGATE	PERCENT	RECOVERY	LIMITS
o-Terphenyl	107	(40 - 144)	
Dotriacontane	106	(42 - 159)	

CONOCO INC.

Client Sample ID: B-11-B

GC Volatiles

Lot-Sample #....: I1E230224-008 Work Order #....: EDTHJ1AD Matrix.....: SOLID  
Date Sampled....: 05/21/01 13:00 Date Received...: 05/23/01 MS Run #.....: 1157213  
Prep Date.....: 06/04/01 Analysis Date...: 06/04/01  
Prep Batch #....: 1157435 Analysis Time...: 18:18  
Dilution Factor: 1  
% Moisture.....: 12 Method.....: SW846 8015B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Gasoline Range Organics	ND	100	ug/kg
SURROGATE	PERCENT	RECOVERY	
	RECOVERY	LIMITS	
a,a,a-Trifluorotoluene (TFT)	93	(75 - 125)	
Bromofluorobenzene	62	(14 - 165)	

## CONOCO INC.

Client Sample ID: B-11-B

## GC Volatiles

Lot-Sample #....: I1E230224-008 Work Order #....: EDTHJ1AC Matrix.....: SOLID  
 Date Sampled....: 05/21/01 13:00 Date Received...: 05/23/01 MS Run #.....: 1157212  
 Prep Date.....: 06/04/01 Analysis Date...: 06/04/01  
 Prep Batch #....: 1157433 Analysis Time...: 18:18  
 Dilution Factor: 1  
 % Moisture.....: 12 Method.....: SW846 8021B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Benzene	ND	1.0	ug/kg
Ethylbenzene	ND	1.0	ug/kg
Toluene	ND	1.0	ug/kg
Xylenes (total)	ND	3.0	ug/kg
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	
Bromofluorobenzene	92	(70 - 130)	
a,a,a-Trifluorotoluene (TFT)	101	(40 - 159)	



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**REPORTS**

**YEAR(S):**

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**2000**