# SOIL ASSESSMENT REPORT AND SOIL REMEDIATION WORKPLAN

## STATE G LEASE ADJACENT ABANDONED TANK BATTERY
## UNIT LETTER J (SITE B)
## SECTION 9, TOWNSHIP 14 SOUTH, RANGE 33 EAST
## LEA COUNTY, NEW MEXICO

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## UNIT LETTER J (SITE B)
## SECTION 9, TOWNSHIP 14 SOUTH, RANGE 33 EAST
## LEA COUNTY, NEW MEXICO

Prepared For:
Chevron Environmental Management Company
1400 Smith St
Houston, Texas 77002

**Prepared by:**
**Conestoga-Rovers & Associates**

2135 S Loop 250 West
Midland, Texas 79703

Office: 432-686-0086
Fax: 432-686-0186

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TABLE OF CONTENTS



LIST OF FIGURES



LIST OF TABLES

## LIST OF APPENDICES

## 1.0 INTRODUCTION

At the request of the New Mexico State Land Office (NMSLO) in a correspondence dated May 10, 2005, Chevron Environmental Management Company (CEMC) on behalf of Chevron North America Exploration and Production Company (Chevron) investigated surface impacts from an apparent leak of an above ground storage tank at the State G Lease (Site A). CEMC retained Conestoga-Rovers & Associates (CRA) to investigate the site and develop a soil assessment report and remediation work plan.

Chevron received a notification letter (APPENDIX A) dated May 10, 2005 from the NMSLO detailing a leaking storage tank at the State Trust SWD-032 Business Lease (State G Lease Release Site). The NMSLO requested that Chevron conduct a Site inspection and enforce corrective action measures at the Site. On May 23, 2005, Chevron submitted a New Mexico Oil Conservation Division (NMOCD) Release Notification and Corrective Action Form C-141 (APPENDIX B) to the NMOCD Hobbs District Office detailing an estimated two barrels of oil were released at the State G Lease, Site A location with no recovery.

CRA and CEMC personnel conducted a Site visit on June 10, 2005 to evaluate surface impacts at the State G Lease Site A location. Additionally, an abandoned tank battery with visible soil surface staining was discovered approximately 1,000-feet west of the State G Lease. According to the CEMC representative, operations at this adjacent abandoned tank battery were associated with the State G Lease Site A. This State G Lease abandoned tank battery location is referred to as Site B. Although the Site B location was not addressed in the NMSLO correspondence, CEMC voluntarily elected to evaluate surface impacts at the Site.

Site B is located approximately 13.7-miles north of the intersection of Highway 457 and US Highway 82 along Highway 457 in Unit Letter J, Section 9, Township 14 South, Range 33 East, Lea County, Mexico. Site B is located approximately 1000 feet west of the State G Lease release Site A in which a soil assessment report and soil remediation work plan is being submitted independent of this document. The coordinates for Site B are 33° 07′ 01″ North Latitude and 103° 36′ 57″ West Longitude. A Site Location Map is provided as FIGURE 1.

The Soil Assessment portion of this report presents soil boring data collected from the State G Lease Adjacent Abandoned Tank Battery (Site B) release Site by CRA on behalf of CEMC. The soil assessment activities described within this report were performed on August 24, 2005. The soil borings were installed by White Drilling Company under the direct supervision of a CRA geologist.

Sections 2.0 and Section 3.0 of this report summarize the regulatory framework and soil assessment activities, respectively. Figures, tables, and appendices are provided to support the results associated with the soil assessment activities. Section 4.0 presents proposed soil remediation and site restoration tasks designed to facilitate Site B closure (as appropriate) in coordination with the NMOCD & NMSLO.

## 2.0 REGULATORY FRAMEWORK

The NMOCD has regulatory jurisdiction over oil and gas production operations including crude oil pipeline spills and closure activities in the State of New Mexico. This project is being conducted under the regulatory guidance of the NMOCD, which requires that hydrocarbon-affected soils be remediated in such a manner that the potential for future affects to groundwater or the environment are minimized. The NMOCD clean up levels are determined on a site-by-site basis, and are based on ranking criteria, which is outlined in the NMOCD "*Guidelines for Remediation of Spills, Leaks, and Releases*", dated August 13, 1993. These ranking criteria guidelines are based on site characteristics consisting of: depth–to-groundwater (from base of affected soil), well head protection (useable water sources), and distance to surface water.

Currently, there are no monitoring wells or water wells on Site to determine site-specific depths-to-groundwater. CRA reviewed the New Mexico Office of the State Engineer and the Interstate Stream Commission document "New Mexico Water Resource Atlas" dated December 2002. Plate 10 of this document shows the Site is situated between the groundwater elevation contours 4,100- and 4,200-feet above sea level. For site ranking purposes, the groundwater elevation at the Site is interpolated to be approximately 4,150-feet above sea level. The surface elevation is approximately 4,220-to 4,225-feet above sea level. Therefore, the estimated depths-to-groundwater based on the above information is approximately 70-to 75-feet below ground surface (bgs).

Site B is located in a relatively flat area of oil and gas production and mostly vegetated by native range grass. In general, adjacent properties consist of rangeland, oil and gas leases, and are relatively flat with a low relief, hilly, sandy and dry topography. The topographic map of the area does not indicate any surface water within one mile of the Site. Well head protection areas appear to be greater than 1,000-feet from the release site.

The table below illustrates the ranking criteria used by the NMOCD and includes site-specific characteristics:

**Ranking Criteria and Scoring**

| CHARACTERISTIC | SELECTION | SCORE |
|---|---|---|
| Depth to Groundwater | 50-99 feet | 10 |
| Well head Protection Area | >1,000 feet | 0 |
| Distance to Surface Water | >1,000 feet | 0 |

**Total Score= 10**

**Soil Recommended Remediation Action Levels**

| Contaminant of Concern | >19 Score | 10-19 Score | 0-9 Score |
|---|---|---|---|
| Benzene (mg/kg) | 10 | 10 | 10 |
| Total BTEX (mg/kg) | 50 | 50 | 50 |
| Total TPH (mg/kg) | 100 | 1,000 | 5,000 |

Based on Site characteristics and the "*Guidelines for Remediation of Spills, Leaks, and Releases*", Site B has a ranking score of 10. Consequently, the ranking criteria Recommended Remediation Action Levels (RRALs) of 10 mg/kg Benzene, 50 mg/kg total Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX), and 1,000 mg/kg TPH are adopted for remediation activities at the Site.

In addition to the NMOCD criteria, the NMSLO also references remediation criteria outlined in State Land Office Rules 19.2.100.66 NMAC and 19.2.100.67 NMAC stating "minimum requirements for surface operations and reclamation on state leases" in a correspondence dated May 10, 2005 provided in APPENDIX A.

CRA proposes to conduct remedial activities in accordance with the aforementioned NMOCD and NMSLO guideline requirements. As appropriate, CRA will subsequently request closure on behalf of CEMC.

## 3.0 SOIL ASSESSMENT

Prior to commencement of soil assessment activities, a Site-specific Health and Safety Plan (HASP) was developed by CRA. CRA and all subcontractors onsite conducted a daily tailgate safety meeting that included discussions of work being performed and any job hazards associated with the assessment activities. CRA notified both the NMOCD and NMSLO 48-hours prior to commencing activities.

Assessment activities described within the following section include the installation of two soil borings and subsurface soil sampling. The locations of the Site B soil borings are illustrated in FIGURES 3.

### 3.1 SOIL BORING INSTALLATIONS AND SAMPLING

Both soil boring locations were approved by CEMC personnel and marked appropriately. The utility notification service was also notified and provided 48 hours to mark their utilities if present.

Both soil borings (SB1 and SB2) were installed by White Drilling Company using the air-rotary method on August 24, 2005 in the general vicinity of the crude oil release. Both soil borings SB1 and SB2 were advanced to 21-feet bgs.

Sampling Methodology

Discrete soil samples were collected on 5-foot intervals. Half of each sample was containerized in a Zip-Loc® bag; the other half was containerized in a labeled, laboratory-supplied sample jar. After the bagged samples were allowed sufficient time to volatilize, headspace readings were recorded with a photo-ionization detector (PID) to measure the relative concentration of volatile organic compounds (VOCs) in the samples. A CRA geologist continuously recorded the soil sample lithologic data and drill cuttings on boring logs for each location. The jarred soil samples were immediately placed on ice in insulated coolers and chilled to a temperature of approximately 4°C (40° F). Soil samples collected for laboratory analyses were based on physical observations and field VOC measurements. The selected samples were submitted to Pace Analytical Laboratories, Inc. (Pace) in New Orleans, Louisiana, and analyzed for TPH concentrations by EPA Method 8015B modified for diesel range organics (DRO) and gasoline range organics (GRO), BTEX concentrations by EPA Method 8021B and Chloride concentrations by EPA Method 325.2. The coolers were sealed for shipment and proper chain-of-custody documentation accompanied the samples. Analytical samples for TPH were extracted outside the holding time limits and BTEX samples were analyzed outside holding limits due to conditions associated with Hurricane Katrina.

Copies of the certified analytical reports, chain-of-custody documentation, and detailed case narratives describing holding times are attached as APPENDIX C.

After drilling and sampling activities were completed, the borings were permanently plugged with a bentonite/grout mixture to prevent subsurface impact from surface runoff. Boring Log Legend and Notes, Site B Logs and Details for Soil Borings SB1 and SB2 (including PID measurements), and Site B Soil Boring Analytical Results - August 2005 are presented on FIGURES 4, 5, & 6, respectfully. In addition, the driller's logs for each boring are provided in APPENDIX D.

## 3.2 SUBSURFACE LITHOLOGY

Soil samples were logged by a CRA field geologist and the general subsurface lithologies observed in the samples are presented below. The appropriate interval thicknesses, depths, and occurrences for the following soil types are presented within the boring logs and details for each soil boring (FIGURES 4 & 5). The subsurface soil types encountered during the assessment include the following descriptions:

- Soil Type #1 is a Silt, minor cobbles, loose, moist;
- Soil Type #2 is a Silty Sand, white, calcareous, friable with interbedded thin caliche layers; and
- Soil Type #3 is a Silty Sand, loose, with silt.

## 3.3 SOIL ASSESSMENT RESULTS

A total of seven soil samples including a duplicate sample were collected from varying depths within the two soil borings and submitted to Pace for BTEX, TPH (DRO/GRO), and Chloride analyses. The submitted samples were selected to evaluate the potentially highest hydrocarbon contaminant concentration(s) based on PID measurements in each soil boring and to assess the vertical and horizontal extent of hydrocarbon and chloride impacts. In addition to the seven soil samples collected, a background sample was collected and analyzed for Chlorides only.

Soil analytical data collected during the soil assessment is summarized in TABLE I. Detections in bold print indicate concentrations above analytical quantification limits and shaded/highlighted detections represent concentrations exceeding NMOCD RRALs. TPH exceedances and chloride analyses are discussed below:

- Total TPH (GRO/DRO) was detected above NMOCD RRALs in two samples (SB1 1-2 and SB2 1-2). TPH exceedances are confined to the upper 5-feet based on analytical data collected from the 5- to 6-feet intervals; and
- Chloride concentrations were detected above analytical quantification limits in four of the seven samples collected including the duplicate. The chloride concentrations ranged from 317 mg/kg in SB2 1-2 to 1,310 mg/kg in SB1 5-6.

NMOCD has not established soil remediation action levels for chloride concentrations. Analytical results for chlorides at Site B demonstrate concentrations were below analytical quantification limits in both soil borings at depth (20-21); Analytical samples for TPH were extracted outside the holding time limits and BTEX samples were analyzed outside holding limits due to conditions associated with Hurricane Katrina. Copies of the certified analytical reports, chain-of-custody documentation, and detailed case narratives describing holding times are attached as APPENDIX C.

Based on site-specific clean up goals administered by the NMOCD and analytical results from the soil assessment activities, the vertical extent of the hydrocarbon-impacted soils has been delineated at the sampled locations. Based on visual observations, the horizontal extent of the hydrocarbon-impacted soils appears to be limited to an area adjacent to the soil boring locations.

Planned remedial activities detailed in Section 4.0 include soil excavation and soil sampling activities. These tasks will further evaluate the nature and extent of impacts at the release locations.

## 4.0 SOIL REMEDIATION WORKPLAN

This portion of the report describes proposed soil remediation activities to remove hydrocarbon-affected soils exhibiting concentrations above NMOCD RRAL's and perform Site B restoration activities. This Soil Remediation Workplan is based upon existing Site conditions, consultation with CEMC personnel and associated NMOCD guidance documents.

The primary objective of this Soil Remediation Workplan is to present procedures for NMOCD and NMSLO review and approval to remove the affected soils exhibiting hydrocarbon concentrations above NMOCD regulatory guidelines. In addition and as appropriate, CEMC will request written acknowledgement from the NMOCD and NMSLO for no further action upon completion of proposed and approved soil remediation activities at the Site. Excavated soils are scheduled for transportation under manifest to a nearby NMOCD permitted waste disposal facility.

The following sections outline the general tasks proposed for this Soil Remediation Workplan. The findings of the remediation activities will be presented in a Site Closure Report.

### 4.1 TASK 1 - PROJECT DEVELOPMENT

Several project development activities are identified for this portion of the work scope. The activities include: a) updating of Site-specific HASP; b) task-specific Job Safety Analysis (JSA's); c) client communication; d) regulatory liaison; e) field activity preparation; and f) generation of the soil remediation work scope as presented in this document.

The project specific Health and Safety Plan (HASP) will be refined by CRA prior to conducting the soil excavation, removal, and backfilling activities. CRA will submit a copy of the HASP to CEMC for approval prior to commencement of Site activities. Safety and health issues associated with this project include working around excavations, heavy equipment, hydrocarbon and chloride-affected soils, and the presence of exposed crude oil pipelines in the general vicinity of the excavation. Stop Work Authority will also be discussed and exercised during any questionable or unsafe work condition. Immediate and prompt corrective actions will be implemented to eliminate any hazard. A trained excavation-competent CRA onsite representative will implement the HASP and task-specific JSA's on a daily basis and more frequently as site and job task conditions dictate. Tailgate safety meetings will be administered each morning prior to beginning work activities in accordance with HASP objectives.

Prior to initiating excavation activities, the Site will be thoroughly inspected by the competent person for any conditions requiring precautionary safety measures. In addition, the location of underground/above-ground utilities and pipelines will be clearly identified and marked. The appropriate utility companies must be identified prior to commencement of excavation activities.

CRA understands that CEMC will have obtained all necessary authorizations for access to the Site to enable the following on-site activities. CRA will notify the NMOCD and the NMSLO approximately 48 hours prior to conducting any activities at the Site.

## 4.2 TASK 2 – EXCAVATION PLAN

Subsequent to appropriate NMOCD, NMSLO and CEMC authorizations to proceed, excavation activities will commence. Based on results of the soil assessment activities and existing Site conditions, the proposed remedial excavation will include excavating the visible hydrocarbon-impacted soil material to approximately 3-feet bgs. Based on analytical results presented in TABLE I, the depth of the proposed remedial excavation is not anticipated to exceed 5-feet bgs. Hydrocarbon-affected material from within the excavation will be removed utilizing heavy equipment and will be placed in a designated Soil Staging Area (SSA).

Soil samples will be periodically collected from within the proposed remedial excavation at various depths and locations based on visual observations and the judgment of CRA field personnel to assess the completeness of the soil removal activities. The soil samples will be field screened utilizing a PID calibrated to a 100-ppm isobutylene standard. Each soil sample will be placed in resealable plastic bags leaving a headspace for VOCs to collect. After sufficient time has been allowed for volatilization, the headspace in each bagged sample will be measured using the PID. Areas exhibiting excessive VOC concentrations and/or visual impacts will be over-excavated and field tested until reduced VOC concentrations and/or limited visual impacts are documented. Consequently, soil confirmation samples will then be collected and analyzed for TPH and Chlorides to document hydrocarbon and chloride concentrations at existing sampled locations.

## 4.3 TASK 3 – SOIL STAGING AND HAULING ACTIVITIES

Hydrocarbon-affected soils removed from the proposed remedial excavation will be staged at the proposed SSA as shown in FIGURES 7. All soil stockpiles onsite identified for offsite transport to an NMOCD-permitted waste disposal facility will be sampled (see Task 4 - Confirmation Soil Sampling Plan & Task 5 - Waste Management). The materials will be loaded into trailer and dump trucks from the prescribed SSA.

Materials deemed appropriate for backfill, whether it be overburden material generated during excavation activities or material imported from an agreed upon location for the express purpose of backfilling, will be stockpiled adjacent to the excavation areas. Appropriate Site-specific documentation including manifests and/or bills-of-lading will be maintained for all soils transported offsite and backhauled onsite.

## 4.4 TASK 4 – CONFIRMATION SOIL SAMPLING PLAN

Sidewall and floor areas of the proposed Site B remedial excavation and the SSA will be identified for confirmation soil sampling activities. The sample locations as shown on FIGURE 7 will be based on the professional judgment of the CRA geologist, the geometry of the proposed remedial excavations and the quantities of the SSA material. The selected soil samples will be submitted to Pace for TPH (GRO/DRO) analysis by EPA Method 8015 (modified), BTEX analyses by EPA Method 8021B and Chlorides by EPA Method 325.2. Each container will be labeled, placed on ice in an insulated cooler, and chilled to a temperature of approximately 40°F (4°C). The cooler will be sealed for shipment to the laboratory. Proper chain-of-custody documentation will accompany the samples to the laboratory.

For planning purposes, a minimum of one grab sample from the proposed excavation floor (Site B Excavation Floor) and four grab samples from the sidewalls of the proposed remedial excavation (Site B NW wall, Site B NE wall, Site B SW wall, Site B SE wall) is planned. In addition, one five-part composite sample from the SSA stockpile is planned.

Based upon the analytical results of the SSA, the material will either be transported to an NMOCD permitted waste disposal facility, or utilized as backfill material (if TPH and BTEX results exhibit concentrations below NMOCD RRALS.)

Site-specific NMOCD ranking criteria cleanup levels of 10 mg/kg benzene, 50 mg/kg total BTEX and 1,000 mg/kg TPH are adopted for remedial and closure activities. Soil samples will also be collected from any soil material deemed appropriate for backfill including but not limited to overburden material generated during excavation activities. Soils exhibiting concentrations below NMOCD RRALs will be utilized for backfilling purposes. Soils exhibited concentrations above NMOCD RRALS will be treated onsite by blending or aeration techniques if feasible or transported to a NMOCD permitted waste disposal facility.

## 4.5 TASK 5 – WASTE MANAGEMENT

Waste characterization analytical data is provided in TABLE II. A submittal and approval of NMOCD Form C-138 and Certificate of Waste Status (APPENDIX E) will be obtained prior to the offsite removal of the hydrocarbon-affected soils. Hydrocarbon-affected soils removed from the Site will be identified for offsite disposal at a NMOCD-permitted waste facility. The estimated volume of soils targeted for transport is anticipated to be approximately 50-cubic yards from the Site. Manifests and bills-of-lading documentation will be maintained to track the actual amount of soil removed from the Site.

## 4.6 TASK 6 – SITE RESTORATION

Subsequently, soils will be imported from an agreed upon location to the Site and will be used to backfill the Site B remedial excavation to existing surface grade. All backfill material will be compacted using the tracks of a bulldozer or similar heavy equipment. Final grading of construction-related surface areas will be performed to mitigate wind erosion and facilitate re-vegetation. A Site Restoration Plan in accordance with the State Land Office Rules 19.2.100.66 NMAC and 19.2.100.67 NMAC will be submitted to the NMSLO for approval. The Site will be reseeded with a grass/seed mixture as designated by the NMSLO.

## 4.7 TASK 7 – SITE CLOSURE REPORT

A document summarizing the activities of the approved Site B Soil Remedial Workplan activities will be submitted to the NMOCD Hobbs District 1 office and the NMSLO in Santa Fe in the form of a Site Remediation/Closure Report. The report will summarize soil excavation/staging activities, confirmation sampling results, as well as providing documentation of waste management and Site restoration activities. Site figures, certified laboratory reports, manifests, bills-of-lading, and/or other relevant project information will be provided in the report. If the findings of the report indicate that the Site is eligible for closure, a Site closure request is proposed for submittal to the NMOCD and the NMSLO for consideration of the approved soil remediation activities. As appropriate, the proposed document will request written acknowledgement from the NMOCD and NMSLO for no further action regarding remedial activities at the Site.

CRA is prepared to begin work on this project subsequent to NMOCD and NMSLO approval (with any modifications) of this Soil Remediation Workplan and CEMC's notification to proceed.

If you have any questions, comments, or require additional information, please contact us at (432) 686-0086.

All of Which is Respectfully Submitted,
Conestoga-Rovers & Associates

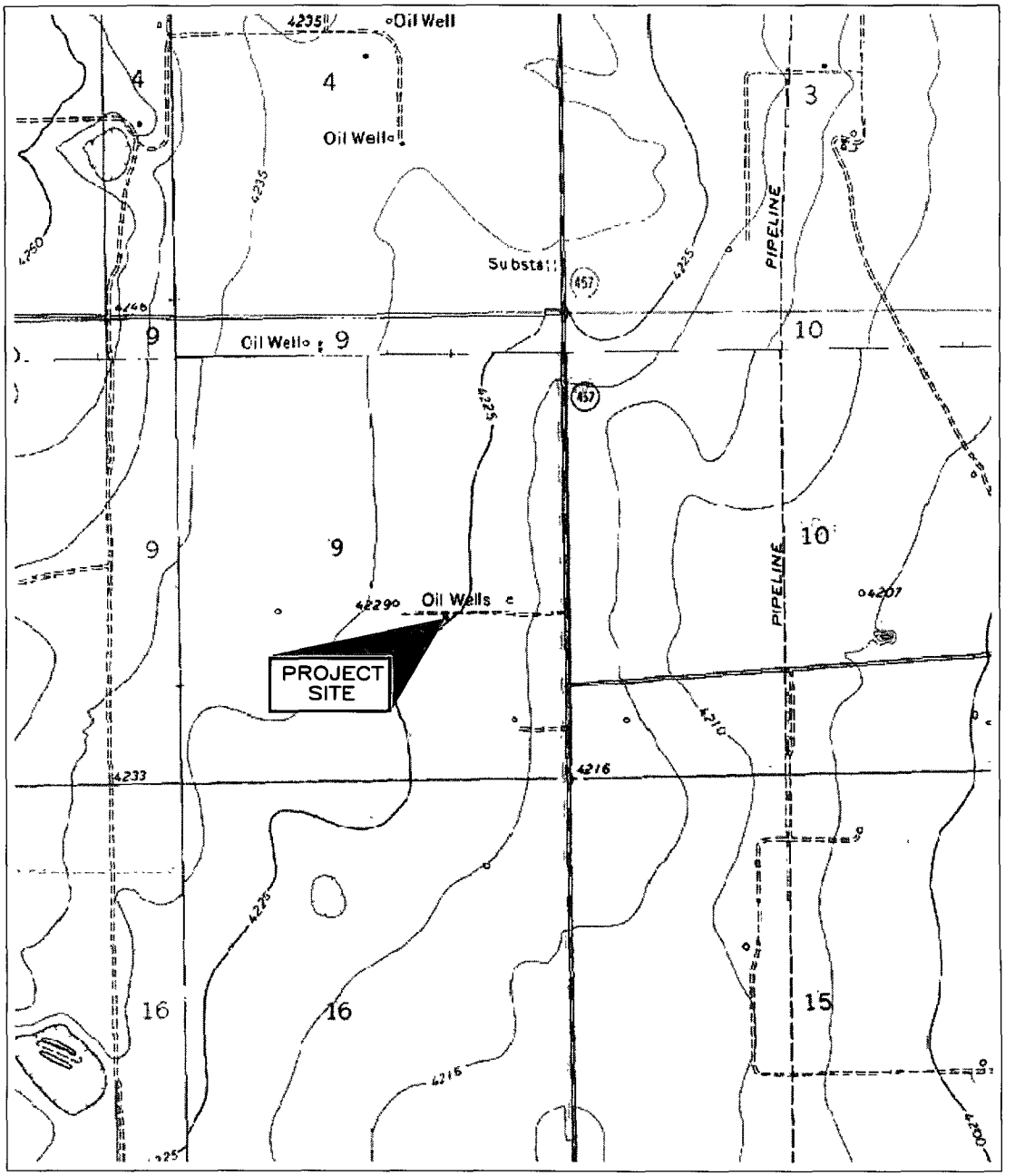
James Ornelas
Project Manager

Thomas C. Larson
Operations Manager

# FORT RANCH QUADRANGLE
# NEW MEXICO

LAT= 33° 07' 01" N
LONG= 103° 36' 57" W

PHOTOREVISED 1973




MAP SERIES 1:24000

0 1/2 1 2
(Miles)

0 2000 4000 6000 8000
(Feet)

CONTOUR INTERVAL 5 FEET

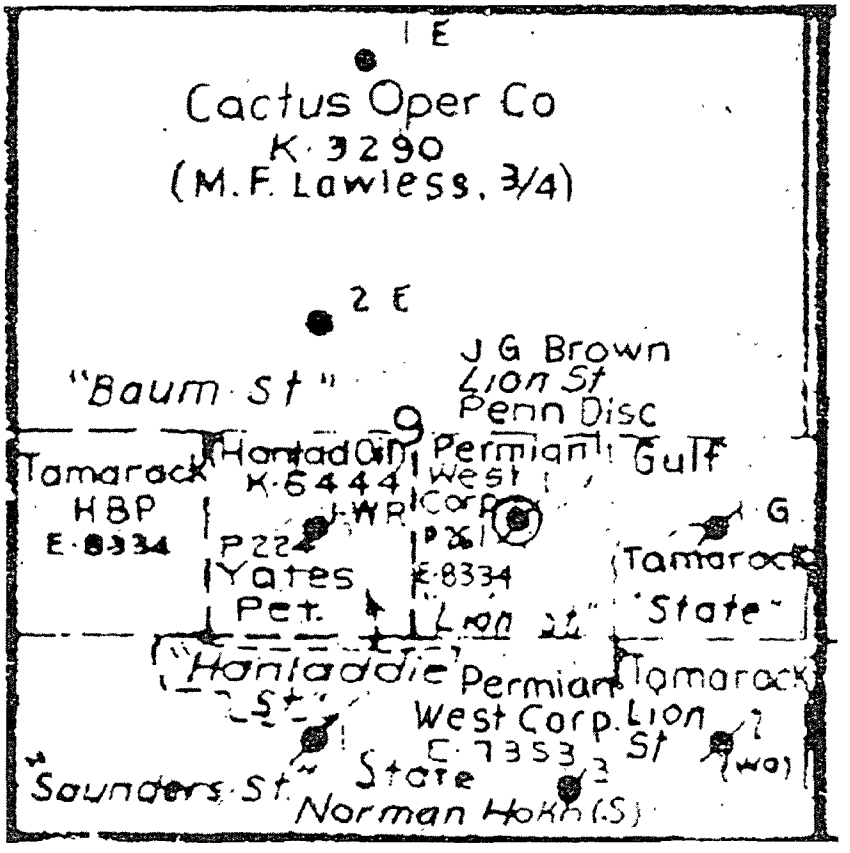
NORTH

042079B SLR 032206

| LOCATION MAP – ADJACENT ABANDONED TANK BATTERY<br>CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY<br>SITE B – STATE G LEASE ADJACENT ABANDONED TANK BATTERY<br>LEA COUNTY, NEW MEXICO | JOB No.<br>042079<br>FIGURE<br>1 |
|---|---|

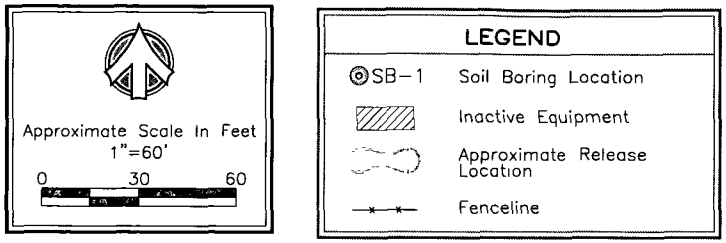
NOT TO SCALE

SECTION 9, T 14 S, R 33 E
LEA COUNTY, NEW MEXICO



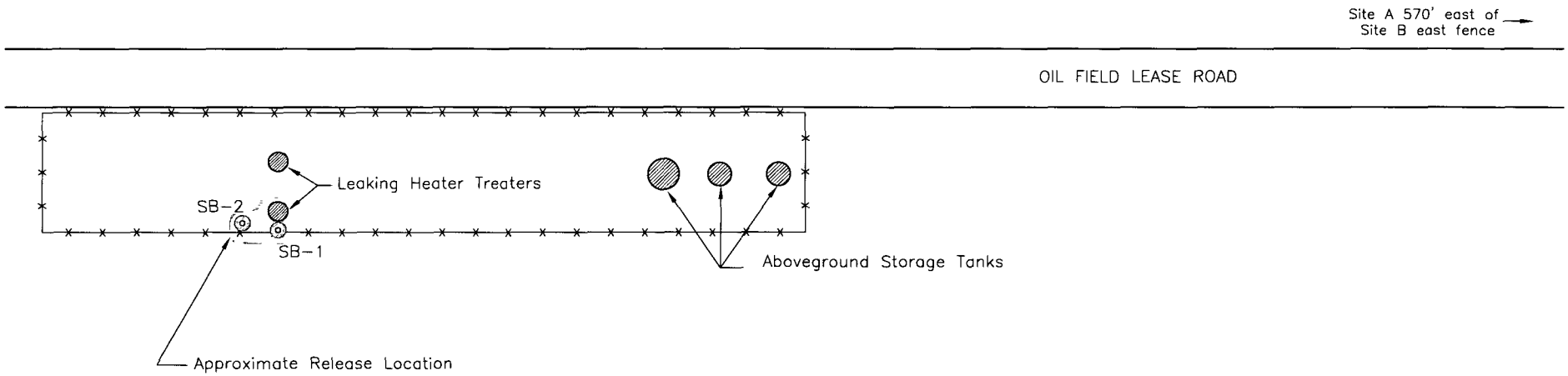

042079B SLR 032206

| | |
|---|---|
| LEASE OWNERSHIP MAP OF SECTION 9, T-14-S, R-33-E<br>CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY<br>SITE B – STATE G LEASE ADJACENT ABANDONED TANK BATTERY<br>LEA COUNTY, NEW MEXICO | JOB No.<br>042079<br>FIGURE<br>2 |










042079B SLR 032206

| | | |
|---|---|---|
| | SITE DETAILS | JOB No. 042079 |
| | CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY<br>SITE B – STATE G LEASE ADJACENT ABANDONED TANK BATTERY LEA COUNTY, NEW MEXICO | FIGURE 3 |

## SOIL TYPE

Calcareous Silty Sand (SM) – White, friable (caliche).

Calcareous Silt (ML) (caliche) – Minor cobbles, loose moist.

Silty Sand (SM) – Loose, with silt.

Oil saturated soil.

Indicates sample selected for laboratory analysis.

Indicates sample interval. Sample was obtained by shovel.

Indicates sample interval. Sample was obtained by auger cuttings.

Indicates sample interval. Sample was obtained by split spoon.

M Indicates Slight to Medium Staining

H Indicates Heavy Staining

B Benzene Concentration (mg/kg)

BTEX Benzene, Toluene, Ethylbenzene and Xylenes Concentration (mg/kg)

TPH1 TPH (DRO) Concentration (mg/kg)

TPH2 TPH (GRO) Concentration (mg/kg)

TPH3 Total Petroleum Hydrocarbons Concentration (mg/kg)

Cl Chloride Concentration (mg/kg)

BDL Below Method Detection Limits

PID Head-space readings in ppm obtained with a photo-ionization detector.

## NOTES

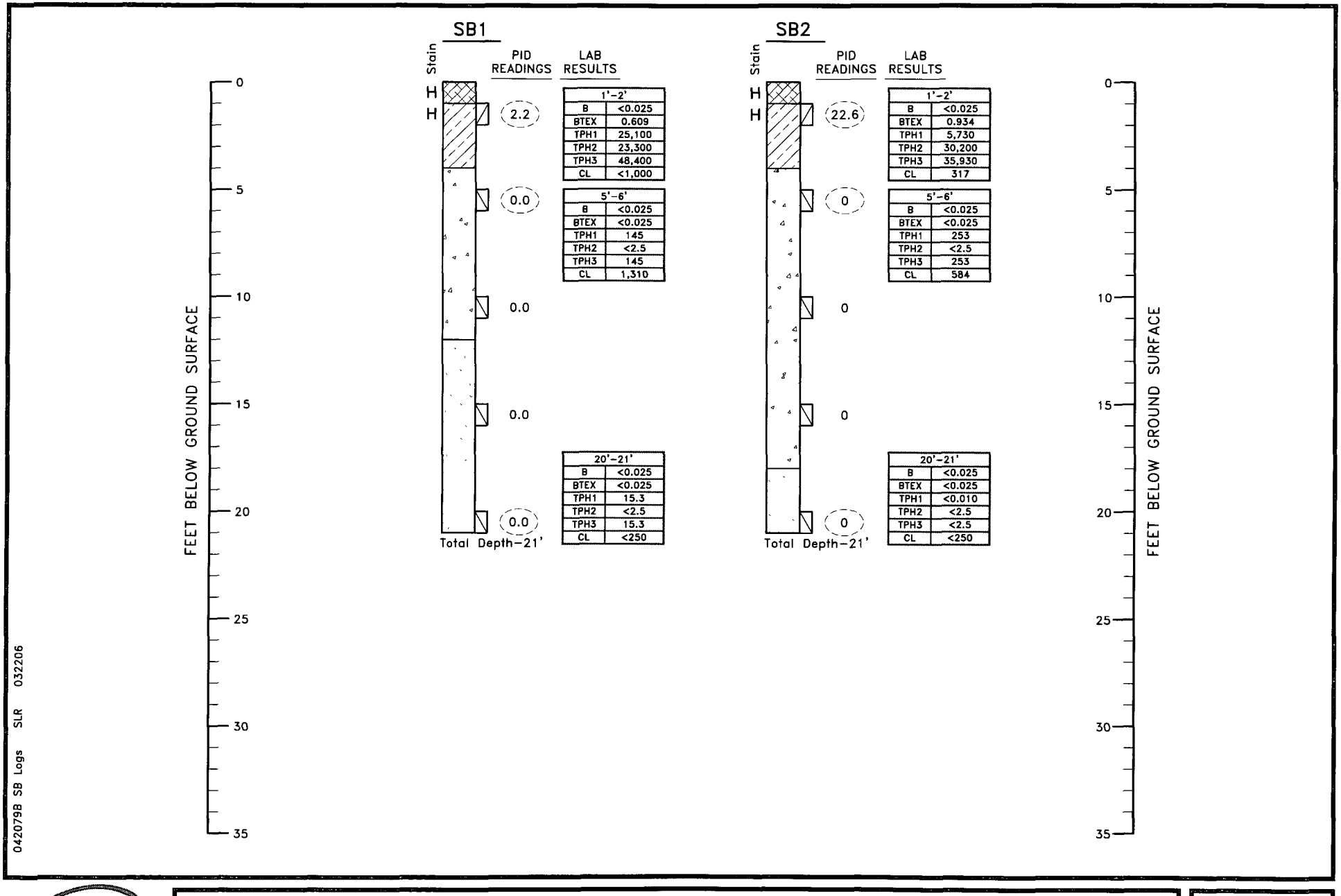
1. The soil borings were drilled on August 24, 2005.
2. The lines between soil types indicated on the logs represent approximate boundaries. Actual transitions may be gradual.
3. The depths indicated are referenced from the ground surface.
4. Soil borings were plugged with hydrated bentonite.
5. Shaded/highlighted detections represent concentrations above NMOCD RRAL's.

042079B SB Logs SLR 032206

**SOIL BORINGS LEGEND AND NOTES**
**CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY**
**SITE B – STATE G LEASE ADJACENT ABANDONED TANK BATTERY**
**LEA COUNTY, NEW MEXICO**

**JOB No. 042079**

**FIGURE 4**




LOGS AND DETAILS FOR SOIL BORINGS SB1 & SB2

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY

SITE B – STATE G LEASE ADJACENT ABANDONED TANK BATTERY LEA COUNTY, NEW MEXICO

JOB No. 042079

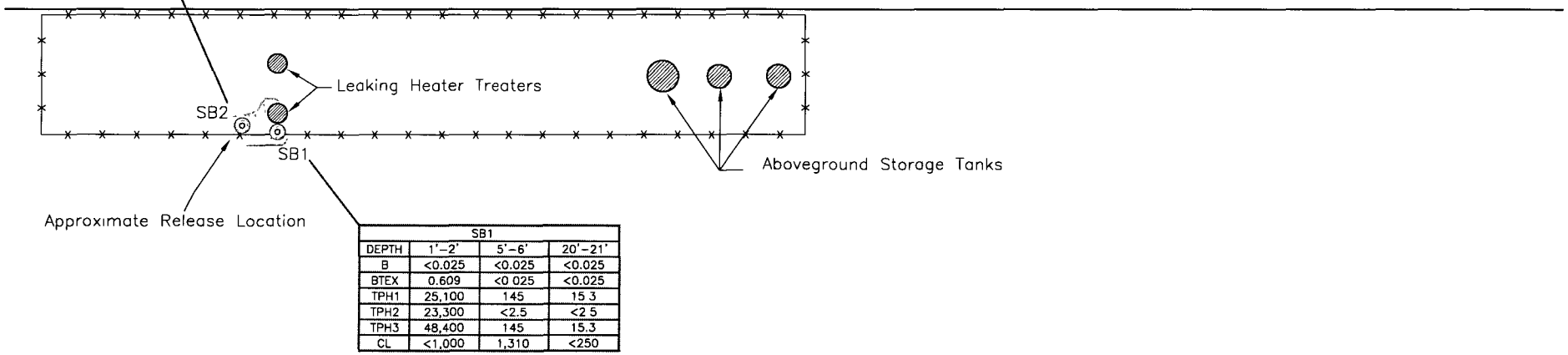
FIGURE 5

Approximate Scale In Feet
1"=60'
0 30 60

## LEGEND

| | | | |
|---|---|---|---|
| ⊙SB−1 | Soil Boring Location | B | Benzene Concentration (mg/kg) |
| Ø | Dryhole Marker (Former State "G" Well) | BTEX | Benzene, Toluene, Ethylbenzene and Xylenes Concentration (mg/kg) |
| | Former Location of Aboveground Storage Tank | TPH1 | TPH (DRO) Concentration (mg/kg) |
| | | TPH2 | TPH (GRO) Concentration (mg/kg) |
| | Approximate Release Location | TPH3 | Total Petroleum Hydrocarbons Concentration (mg/kg) |
| | | Cl | Chloride Concentration (mg/kg) |

| SB2 | | | | |
|---|---|---|---|---|
| DEPTH | 1'−2' | 5'−6' | DUP(5'−6') | 20'−21' |
| B | <0 025 | <0.025 | <0.025 | <0.025 |
| BTEX | 0.934 | <0.025 | <0 025 | <0.025 |
| TPH1 | 5,730 | 253 | 331 | <0 010 |
| TPH2 | 30,200 | <2.5 | <2.5 | <2 5 |
| TPH3 | 35,930 | 253 | 331 | <2.5 |
| CL | 317 | 584 | 693 | <250 |




| SB1 | | | |
|---|---|---|---|
| DEPTH | 1'−2' | 5'−6' | 20'−21' |
| B | <0.025 | <0.025 | <0.025 |
| BTEX | 0.609 | <0 025 | <0.025 |
| TPH1 | 25,100 | 145 | 15 3 |
| TPH2 | 23,300 | <2.5 | <2 5 |
| TPH3 | 48,400 | 145 | 15.3 |
| CL | <1,000 | 1,310 | <250 |

**NOTE**

Shaded/highlighted detections represent concentrations above NMOCD Recommended Remediation Action Levels (Total Ranking Score = 10).

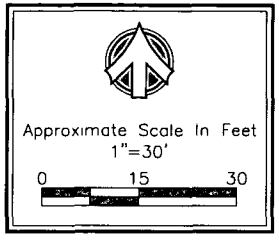
042079B SLR 032206

SOIL BORING ANALYTICAL RESULTS – AUGUST 2005

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
SITE B – STATE G LEASE ADJACENT ABANDONED TANK BATTERY LEA COUNTY, NEW MEXICO

JOB No. 042079

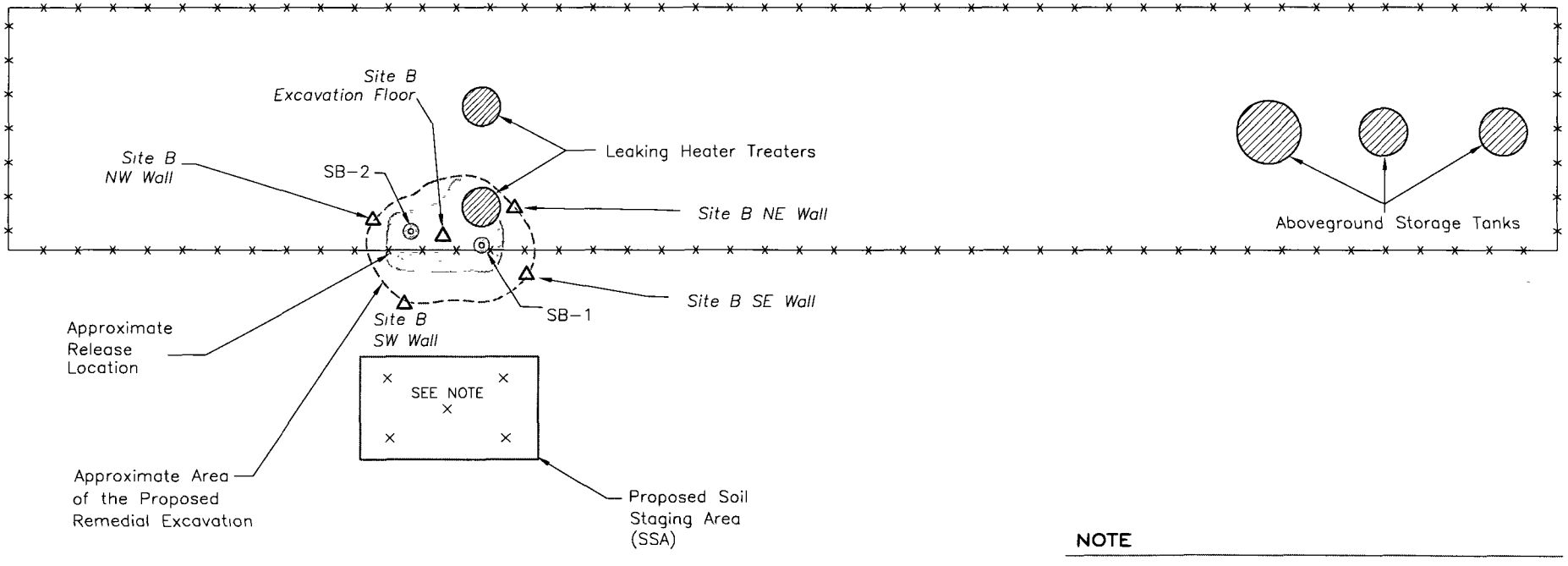
FIGURE 6




## LEGEND

| | |
|---|---|
| ◎SB-1 | Soil Boring Location |
| ⌀ | Dryhole Marker (Former State "G" Well) |
| | Former Location of Aboveground Storage Tank |
| | Approximate Release Location |
| | Approximate Area of the Proposed Remedial Excavation |
| △*Site B* | Proposed Grab Sample Location |
| × | Proposed Composite Sample Location |

OIL FIELD LEASE ROAD




**NOTE**

One five-part composite sample from the proposed Soil Staging Area is planned.

042079B SLR 032206

CRA

PROPOSED EXCAVATION AND SOIL CONFIRMATION SAMPLE LOCATION MAP

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY

SITE B – STATE G LEASE ADJACENT ABANDONED TANK BATTERY LEA COUNTY, NEW MEXICO

JOB No. 042079

FIGURE 7

# TABLE I
# SOIL ANALYTICAL SUMMARY
# CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
# SITE B
# STATE G LEASE ADJACENT ABANDONED TANK BATTERY
# LEA COUNTY, NEW MEXICO

| Sample ID | Depth (feet) | Sample Date | Benzene (mg/kg) | Toluene (mg/kg) | Ethyl-Benzene (mg/kg) | Total Xylenes (mg/kg) | TOTAL BTEX (mg/kg) | TPH (8015B Modified) DRO (mg/kg) | TPH (8015B Modified) GRO (mg/kg) | TPH (8015B Modified) (GRO/DRO) (mg/kg) | Chlorides (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NMOCD Recommended Remediation Action Levels (Total Ranking Score = 10) | | | | | | | | | | | |
| | | | 10 mg/kg | --- mg/kg | --- mg/kg | --- mg/kg | 50 mg/kg | --- mg/kg | --- mg/kg | 1000 mg/kg | --- mg/kg |
| SB1 | (1-2) | 8/24/05 | <0.025 | <0.025 | **0.193** | **0.416** | **0.609** | **25,100** | **23,300** | **48,400** | <1000 |
| | (5-6) | 8/24/05 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | **145** | <2.5 | **145** | **1,310** |
| | (20-21) | 8/24/05 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | **15.3** | <2.5 | **15.3** | <250 |
| SB2 | (1-2) | 8/24/05 | <0.025 | <0.025 | **0.141** | **0.793** | **0.934** | **5,730** | **30,200** | **35,930** | **317** |
| | (5-6) | 8/24/05 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | **253** | <2.5 | **253** | **584** |
| Duplicate | (5-6) | 8/24/05 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | **331** | <2.5 | **331** | **693** |
| | (20-21) | 8/24/05 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.010 | <2.5 | <2.5 | <250 |
| Background | | 8/24/05 | NS | NS | NS | NS | NS | NS | NS | NS | <250 |

**Notes:**

1. BTEX analyses by EPA Method 8021B.
2. TPH analyzed by EPA Method 8015B Mod.
3. Chlorides analyzed by EPA Method 325.2
4. Bold concentrations above lab reporting limits.
5. Highlighted cells indicated concentrations above regulatory limits
6. NS - Not sampled

# TABLE II
# WASTE CHARACTERIZATION
# SUMMARY
# CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
# SITE B
# STATE G LEASE ADJACENT ABANDONED TANK BATTERY
# LEA COUNTY, NEW MEXICO

| Sample ID | Sample Date | Benzene (mg/kg) | Toluene (mg/kg) | Ethyl-Benzene (mg/kg) | Total Xylenes (mg/kg) | TOTAL BTEX (mg/kg) | TPH (8015B Modified) DRO (mg/kg) | GRO (mg/kg) | (GRO/DRO) (mg/kg) | RCI Reactive Sulfide (mg/kg) | Reactive Cyanide (mg/kg) | Corrosivity pH units | Ignitability °C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NMOCD Recommended Remediation Action Levels (Total Ranking Score = 10) | | | | | | | | | | | | | |
| | | 10 mg/kg | --- mg/kg | --- mg/kg | --- mg/kg | 50 mg/kg | --- mg/kg | --- mg/kg | 1000 mg/kg | | | | |
| Site B Soil Chara | 8/24/05 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | **17,700** | <2.5 | **17,700** | **150** | <25.0 | **8.06** | **0.00** |

Notes:

1. BTEX analyses by EPA Method 8021B.
2. TPH analyzed by EPA Method 8015B Mod
4. Bold concentrations above lab reporting limits.
5. Highlighted cells indicated concentrations above regulatory limits

# APPENDIX A

## State of New Mexico Commission of Public Lands Correspondence dated May 10, 2005

PATRICK H. LYONS
COMMISSIONER

# State of New Mexico
# Commissioner of Public Lands

310 OLD SANTA FE TRAIL
P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S OFFICE
Phone (505) 827-5760
Fax (505) 827-5766
www.nmstatelands.org

May 10, 2005

**CERTIFIED MAIL,**
**RETURN RECEIPT REQUESTED**

Chevron USA, Incorporated
HCR 60, Box 423
Lovington, NM 88260

ATTN: Phillip W. Minchew

Re: New Mexico Oil and Gas Lease No. B-10363-0
Eclipse Oil and Gas, Inc. - State D SWD Well No. 1
Unit Letter I, Section 9, Township 14 South, Range 33 East
Lea County, New Mexico

Mr. Minchew:

It has come to our attention that certain unacceptable damages to the surface exist in Section 9, Township 14 South, Range 33 East, Lea County, New Mexico. The State District Resource Manager has indicated that there is a leaking storage tank that has affected the surface on the above described lease.

Attached for your review are State Land Office Rules 19.2.100.66 NMAC and 19.2.100.67 NMAC. These rules outline minimum requirements for surface operations and reclamation on state leases. As the lessee of record, you have incurred certain obligations, which require protection of the surface estate, including livestock, watercourses, soil, vegetation, and surface improvements.

You are requested to inspect your leasehold and to enforce corrective action within ninety (90) days from the date of this letter. Please coordinate your plans with our District Resource Manager Myra Meyers, whose phone number is (505) 392-8736. If you have any questions, please feel free to contact me.

Sincerely,

**PATRICK H. LYONS**
**COMMISSIONER OF PUBLIC LANDS**

JAMI BAILEY, Director
Oil, Gas, & Minerals Division
(505) 827-5745

PHL/JB/sd

Pc: Myra Meyers, NMSLO District Resource Manager, Hobbs, NM - Attachments

TITLE 19 NATURAL RESOURCES AND WILDLIFE
CHAPTER 2 STATE TRUST LANDS
PART 100 RELATING TO OIL AND GAS LEASES

**19.2.100.66 SURFACE OPERATIONS ON STATE OIL AND GAS LEASES:**

A. Purpose and Application of 19.2.100.66 NMAC: The purpose of 19.2.100.66 NMAC is to establish minimum procedures for protecting the surface affected by operation and development activities on state oil and gas leases. 19.2.100.66 NMAC applies to all operations conducted after its effective date on state oil and gas leases, the surface of which is held in trust by the commissioner of public lands.

B. Operation Requirements:

(1) Surface Trash and Debris: All operators shall remove all surface trash and debris caused by their operations from the lease and shall keep such premises free and clear of such trash and debris. As used in 19.2.100.66 NMAC, "surface trash and debris" means all nonoperational and/or nonessential equipment resulting from the drilling and/or producing operation of oil and gas leases and includes, but is not limited to, garbage, rubbish, junk or scrap.

(2) Pits:

(a) Pits shall not be located in, or hazardously near, water drainages. Pits shall be constructed to prevent contamination of the surface and the subsurface by seepage or flowage; including, if necessary, lining with impermeable materials as provided by Rules and regulations of the oil conservation division. Under no circumstances shall pits be used for disposal, dumping or storage of off-lease fluids. Subject to all applicable state and federal laws, and if the operator agrees to accept all liability therefore; garbage, junk, waste or other inorganic debris may be disposed of in the caliche or burn pit located on the side of the reserve pit when the reserve pit is reclaimed.

(b) All pits shall be fenced. The type of fence used must be specific to the class of livestock in the area. Fencing shall remain in place for the life of the pit and be maintained to keep livestock out. All fences shall be braced or constructed in such a manner as to keep wires tight with no sagging between posts. State land office personnel will inspect and, if necessary, notify operators or lessees of necessary repairs or requirements for maintaining the required condition of all fences associated with leases. Fencing shall comply with all other state and federal requirements.

(c) If a pit is lined, the liner shall be installed and maintained to prevent ingestion by livestock and wildlife.

(d) Drilling fluids and drill cuttings shall be disposed of in a manner to prevent contamination to the surface. Rules of the oil conservation division which relate to the disposal of drilling fluids and drill cuttings shall be complied with.

(3) Site Development:

(a) All access roads shall be built, maintained and reclaimed in accordance with 19.2.20 NMAC.

(b) All trees and/or wood over three inches in diameter removed for site preparation shall be disposed of on site as determined by the state land office.

(c) Where required by the federal Clean Water Act, other applicable federal or state law, or regulations promulgated pursuant thereto, production and storage tanks shall be surrounded with an earthen berm in compliance with such applicable law and regulations. In addition, such a berm may be required by the state land office if a particular tank has a history of repeated leaks.

(4) Spills:

(a) All new spills shall be treated and cleaned up immediately. All surface affected by such spills and leaks shall be reclaimed. Reclamation of the area involved shall be implemented in consultation with the state land office.

(b) All spills shall be reported in accordance with the regulations of the oil conservation division.

(5) Pipelines: If practicable, lines placed on top of the surface shall be placed to take advantage of existing roads and/or alongside other lines already on top of the ground. If regular maintenance and inspection by vehicle is necessary, and a permanent road required, the road shall be constructed and maintained in accordance with 19.2.20 NMAC. All other traffic shall be kept to a minimum.

C. Closeout and Operation Plan:

(1) A reclamation and/or operation plan may be submitted to the state land office for review. If approved, the plan shall substitute for the reclamation and/or operation requirements of 19.2.100.66 NMAC and/or 19.2.100.67 NMAC.

(2) The plan shall consist of reclamation and operation specifics for compliance with the regulations concerning reclamation and operations, with an additional section that sets out the schedule of implementation on a continuing basis during the life of the lease relative to operation, maintenance, spills, leaks, cleanup and revegetation.

D. Review and Inspection:

(1) State land office personnel and/or oil conservation division personnel may, from time to time, recommend actions necessary to comply with reasonable use of the surface and prudent operator standards.

(2) These recommendations shall be made either to state land office administrators and/or the commissioner's office, or to the lessee directly.

E. Exemptions and Appeal Procedure:

(1) The commissioner, or his qualified designated representative, may grant an exemption to any or all of the requirements of this Rule when a lessee provides a state land office approved reclamation and/or operation plan, or demonstrates that compliance would be impracticable or has occurred naturally. Any such exemption granted shall be in writing addressed to the lessee or operator requesting the exemption.

(2) Any lessee or operator aggrieved or adversely affected by a determination or interpretation of the state land office under 19.2.100.66 NMAC may, within sixty days of the receipt of such determination or interpretation, request a hearing before the commissioner of public lands. Within thirty days after receiving such a request, the commissioner shall convene a hearing at which the lessee or operator and the commissioner's staff may present evidence. Within fifteen days of the hearing, the commissioner shall enter his decision on the matter. Any decision of the commissioner may be appealed pursuant to Section 19-10-23 NMSA 1978.

[19.2.100.66 NMAC – Rn, SLO Rule 1, Section 1.068, 12/13/2002]

**19.2.100.67 SURFACE RECLAMATION ON STATE OIL AND GAS LEASES:**

A. Purpose and Application of 19.2.100.67 NMAC:

(1) The purpose of 19.2.100.67 NMAC is to establish minimum procedures to follow in reclaiming surface disturbances resulting from development and production on state oil and gas leases, the surface of which is held in trust by the commissioner of public lands.

(2) 19.2.100.67 NMAC applies to areas disturbed by operations conducted under all existing and future leases. However, current lessees will not be held responsible for reclaiming areas disturbed under a lease which has previously expired or been terminated and for which the current lessee is not a successor-in-interest. Also, a prudent operator standard will be applied to the reclamation of other conditions existing on the effective date of this Rule. In this regard, lessees are expected to comply with all requirements concerning removal of debris and improvements; however, specific requirements relating to ripping and reseeding will be developed by consultation and planning between the lessee and the state land office, using accepted industry standards such as those established by the bureau of land management.

B. Definitions, as used in 19.2.100.67 NMAC:

(1) "temporary abandonment" occurs if a well is no longer usable for beneficial purposes; has been continuously inactive for more than one year; and has been approved for temporary abandonment by the oil conservation division.

(2) "permanent abandonment" occurs if a well is no longer usable for beneficial purposes; has been continuously inactive for more than one year; and has not been approved for temporary abandonment by the oil conservation division.

C. Reclamation Requirements:

(1) Surface Sites and Off-Lease Storage Areas:

(a) Surface sites and off-lease storage areas, upon temporary or permanent abandonment, shall be cleared of junk and debris and, if necessary, be bermed or water-barred in order to stabilize the site and prevent erosion. Within one year of permanent abandonment, the sites and areas shall be ripped through to the underlying material and reseeded.

(b) Where available, topsoil removed from surface sites shall be stored for use in future reclamation of the site. Pads, within one year of permanent abandonment, shall have all caliche ripped through to the underlying material, any remaining stored topsoil replaced and the site reseeded.

(2) Roads: Roads shall be left in place only if authorized by the state land office. If any road is not needed, then, within one year of permanent abandonment, it shall be ripped, reseeded, bermed (closed) at the entrance, and water bars shall be constructed as directed or approved by the state land office. 19.2.20 NMAC shall be followed for specifics relating to road construction, maintenance and reclamation.

(3) Spills and Leaks: Within one year of permanent abandonment, all surface affected by spills and leaks shall be reclaimed. Reclamation of the area involved shall be implemented in consultation with the state land office.

(4) Pits (Operating/Drilling and Other):

(a) All pits, within one year of permanent abandonment or within a reasonable time of nonuse, shall be dried and leveled to restore as much of the original contour as is practical to minimize erosion. The pits shall be reseeded as required by this Section.

(b) All lining materials (plastics or otherwise) shall be removed from the surrounding area, cut off and permanently buried below the surface or removed from the area.

(5) Pipelines:

(a) Buried pipelines may be left in place and the surface ripped, water-barred and reseeded according to the specifics of the site.

(b) Within one year of permanent abandonment, surface lines shall be removed and the surface reclaimed as specified in Subparagraph (a) of Paragraph (5) of Subsection C of 19.2.100.67 NMAC.

(6) Debris: All oil and gas lease related surface trash and debris shall be removed upon temporary or permanent abandonment or disposed of in the manner permitted in 19.2.100.66 NMAC. As used in 19.2.100.67 NMAC, "surface trash and debris" means all nonoperational and/or nonessential equipment resulting from the drilling and/or producing operation of oil and gas leases and includes, but is not limited to, garbage, rubbish, junk or scrap.

(7) Revegetation:

(a) For all reseeding required by this Section, the state land office will approve seeding rates and seed mixtures, or approve site-specific recommendations. When possible, the state land office will recommend such approved rates and mixtures, but will not require seed varieties in its mixtures which are not in common use in the area.

(b) All required reseeding shall be planned and completed with a goal of revegetation consistent with local natural vegetation density. After a failed attempt to revegetate an area, a second reseeding may be required by the state land office, but in no event shall such second reseeding be required more than two years after the initial one.

(8) Lessee's Improvements: The lessee or operator shall remove all improvements placed or erected on the premises within sixty days after the expiration or termination of an oil and gas lease. Any improvements remaining at the end of such sixty-day period shall be deemed abandoned for the purposes of Sections 19-7-14 and 19-10-28 NMSA 1978 and no payments shall be due for such remaining improvements pursuant to those Sections.

D. Release Upon Permanent Abandonment and Grant of Access: Upon state land office approval and release, a lessee's reclamation responsibilities are terminated. The state land office shall issue a reclamation permit for access to complete reclamation after expiration or termination of an oil and gas lease. The reclamation permit shall be a standard form developed after consultation with interested industry groups.

E. Closeout and Operation Plan:

(1) A reclamation and/or operation plan may be submitted to the state land office for review. If approved, the plan shall substitute for the reclamation and/or operation requirements of this Section and/or 19.2.100.66 NMAC.

(2) The plan shall consist of reclamation and operation specifics for compliance with the regulations concerning reclamation and operations, with an additional section that sets out the schedule of implementation on a continuing basis during the life of the lease relative to operation, maintenance, spills, leaks, cleanup and reseeding.

F. Exemptions and Appeal Procedure:

(1) The commissioner, or his qualified designated representative, may grant an exemption to any or all of the requirements of 19.2.100.67 NMAC when a lessee provides a state land office approved reclamation and/or operation plan, or demonstrates that compliance would be impracticable or has occurred naturally. Any such exemption granted shall be in writing addressed to the lessee or operator requesting the exemption.

(2) Any lessee or operator aggrieved or adversely affected by a determination or interpretation of the state land office under 19.2.100.67 NMAC may, within sixty days of the receipt of such determination or interpretation, request a hearing before the commissioner of public lands. Within thirty days after receiving such a request, the commissioner shall convene a hearing at which the lessee or operator and the commissioner's staff may present evidence. Within fifteen days of the hearing, the commissioner shall enter his decision on the matter. Any decision of the commissioner may be appealed pursuant to Section 19-10-23 NMSA 1978.

G. Temporary Provision -- Phase-In: Lessees or operators of leases which contain conditions existing on the effective date of 19.2.100.67 NMAC, otherwise requiring immediate reclamation under 19.2.100.67 NMAC, shall have five years to complete reclamation of such conditions if they demonstrate steady progress toward such completion pursuant to an approved reclamation plan or the requirements of 19.2.100.67 NMAC.

[19.2.100.67 NMAC – Rn, SLO Rule 1, Section 1.069, 12/13/2002]

# APPENDIX B

## New Mexico Oil Conservation Division Form C-141

District I
1625 N. French Dr , Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

# Release Notification and Corrective Action

## OPERATOR

☒ Initial Report ☐ Final Report

| | |
|---|---|
| Name of Company Chevron USA | Contact Wayne Minchew |
| Address HCR60 Box 423 Lovington, NM 88260 | Telephone No. 505 396 4414 |
| Facility Name State D SWD Well #1 | Facility Type Salt Water Disposal |

| | | |
|---|---|---|
| Surface Owner STATE OF NM | Mineral Owner State | Lease No. B-10363-0 |

API 30.025.36171

## LOCATION OF RELEASE

| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
|---|---|---|---|---|---|---|---|---|
| I | 9 | 14 South | 33 East | | | | | Lea |

**Latitude**_____ **Longitude**_____

FORMER ECLISPE OIL & GAS
SWD ORDER # SWD 27

## NATURE OF RELEASE

| | | |
|---|---|---|
| Type of Release Oil | Volume of Release 2 Bbl. | Volume Recovered 0 Bbl. |
| Source of Release Tank with holes | Date and Hour of Occurrence May 10 | Date and Hour of Discovery May 10 |
| Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required | If YES, To Whom? | |
| By Whom? | Date and Hour | |
| Was a Watercourse Reached? ☐ Yes ☒ No | If YES, Volume Impacting the Watercourse. | |

WTR L/100'

If a Watercourse was Impacted, Describe Fully.*

WELL P&A 10.18.06
DRILLED MAY 1961 FOR SWD

Describe Cause of Problem and Remedial Action Taken.*
Lease abandoned by Eclipse and Tamarack – Original State Land lease belongs to Gulf Oil – Notification by letter from State Land Office dated 5/10/2005

RECEIVED
FEB 20 2008
HOBBS OCD

Describe Area Affected and Cleanup Action Taken.*
Road and caliche pad on location – Tank will be emptied and cleaned. Testing and remediation on site.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations

| | |
|---|---|
| Signature: | OIL CONSERVATION DIVISION |
| Printed Name: P.W. Minchew | Approved by District Supervisor: ENVIRONMENTAL ENGINEER |
| Title: Operations Supervisor | Approval Date: 2.20.08 Expiration Date: 6.20.08 |
| E-mail Address: pminchew@chevrontexaco.com | Conditions of Approval: Attached ☐ |
| Date: 5/23/2005 Phone: 396-4414 | . TEST ENTIRE SITE FOR CHLORIDES IRP# 1791 |

* Attach Additional Sheets If Necessary

. TO CLOSE, ALL EQUIPMENT MUST BE REMOVED
. NOTIFY OCD PRIOR TO ALL ACTIVITIES

fCOHD 805229283

# APPENDIX C

## Certified Laboratory Reports, Chains-of-Custody, and Case Narratives

Pace Analytical®
New Orleans Laboratory

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

October 07, 2005

James Ornelas
CRA
2135 S. Loop 250 West
Midland, TX 79703

RE: Project: 2053619
RE: Project ID: STATE G SITE B

Dear James Ornelas:

Enclosed are the analytical results for sample(s) received by the laboratory on August 26, 2005. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Cindy Olavesen

Cindy Olavesen

*Pace Analytical Services, Inc.*
*1000 Riverbend Blvd. Suite F*
*St. Rose, LA 70087*
*Phone: 504.469.0333*
*Fax: 504.469.0555*
*LELAP # 02006*

Pace Analytical®
New Orleans Laboratory

# Report of Laboratory Analysis

# Project Number: 2053619

ACCREDITED IN ACCORDANCE WITH nelac



10/7/2005 07:23:01

Pace Analytical
New Orleans Laboratory

# Sample Cross Reference Report

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Client:** CRA

**Project:** STATE G SITE B

**Project No.:** 2053619

| Sample ID | Lab ID | Matrix | Collection Date/Time | Received Date/Time |
|---|---|---|---|---|
| SB1-1-2' | 20399421 | Soil | 08/24/2005 11:15 | 08/26/2005 10:15 |
| SB1-5-6' | 20399422 | Soil | 08/24/2005 11:20 | 08/26/2005 10:15 |
| SB1-20-21' | 20399423 | Soil | 08/24/2005 11:35 | 08/26/2005 10:15 |
| SB2-1-2' | 20399424 | Soil | 08/24/2005 11:47 | 08/26/2005 10:15 |
| SB2-5-6' | 20399425 | Soil | 08/24/2005 11:50 | 08/26/2005 10:15 |
| SB2-20-21' | 20399426 | Soil | 08/24/2005 11:55 | 08/26/2005 10:15 |
| DUPLICATE | 20399427 | Soil | 08/24/2005 | 08/26/2005 10:15 |
| TRIP BLANK | 20399428 | Water | 08/24/2005 | 08/26/2005 10:15 |

Pace Analytical®
New Orleans Laboratory

# Report of Laboratory Analysis

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

| | | | | | |
|---|---|---|---|---|---|
| | | **Client:** | CRA | | |
| **Client ID:** | SB1-1-2' | **Site:** | None | | |
| **Project:** | STATE G SITE B | **Project No.:** | 2053619 | **Sample Qu:** | |
| **Lab ID:** | 20399421 | **Matrix:** | Soil | **% Moisture:** | Not Corrected |
| **Description:** | None | **Prep Level:** | Soil | **Batch:** | 64656 |
| **Method:** | SW 8015B TPH Diesel & Oil Range Organics | **Units:** | mg/kg | **Target List:** | TPHLOW |
| | | **Collected:** | 08/24/05 | **Received:** | 08/26/05 |
| **Prep Factor:** | 10 **Leached:** n/a | **Prepared:** | 09/29/05 | **Analyzed:** | 10/03/05 22:46 NCM (1) |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| | TPH - Diesel Range Organics (C10-C28) | 10 | 25100 | N P2 | 1000 | |

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit denotes an actual regulatory limit or a client-requested notification limit.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

10/7/2005 07:23:01

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water - LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health, Environmental/ELWHW - E-10268
U.S. Dept. of Agricultural Animal & Plant Health Inspection Services
USDA Foreign Soil Import (U.S Territories) - S-47270

Pace Analytical®
New Orleans Laboratory

# Report of Laboratory Analysis

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

| | | | |
|---|---|---|---|
| | | **Client:** CRA | |
| **Client ID:** SB1-1-2' | | **Site:** None | |
| **Project:** STATE G SITE B | | **Project No.:** 2053619 | **Sample Qu:** |
| **Lab ID:** 20399421 | | **Matrix:** Soil | **% Moisture:** Not Corrected |
| **Description:** None | | **Prep Level:** Soil | **Batch:** 64637 |
| **Method:** SW 8015B TPH Gasoline Range Organics (C6-C10) | | **Units:** ug/kg | **Target List:** TPHGPTMED |
| | | **Collected:** 08/24/05 | **Received:** 08/26/05 |
| **Prep Factor:** 1 | **Leached:** n/a | **Prepared:** 09/29/05 | **Analyzed:** 10/03/05 12:41 cww (1) |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| | TPH - Gasoline Range Organics (C6-C10) | 1 | 23300 | N | 2500 | |

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit denotes an actual regulatory limit or a client-requested notification limit.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

10/7/2005 07:23:01

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (LELAP)/Drinking Water - LA000005
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health Environmental/ELWHW - E-10266
U.S. Dept. of Agricultural Animal & Plant Health Inspection Services
USDA Foreign Soil Import (U.S Territories) - S-47270

Pace Analytical®
New Orleans Laboratory

# Report of Laboratory Analysis

Pace Analytical Services, Inc.
1000 Riverbend Blvd, Suite F
St. Rose, LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

Client: CRA

Client ID: SB1-1-2'
Site: None
Project: STATE G SITE B
Project No.: 2053619
Sample Qu:
Lab ID: 20399421
Matrix: Soil
% Moisture: Not Corrected
Description: None
Prep Level: Soil
Batch: 64631
Method: SW 8021 BTEX
Units: ug/kg
Target List: BTEXMED
Collected: 08/24/05
Received: 08/26/05
Prep Factor: 1
Leached: n/a
Prepared: 09/29/05
Analyzed: 10/03/05 12:41 cww:n

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | 1 | ND | N | 25.0 | |
| 100-41-4 | Ethylbenzene | 1 | 193. | N | 25.0 | |
| 108-88-3 | Toluene | 1 | ND | N | 25.0 | |
| 1330-20-7 | m,p-Xylene | 1 | 136. | N | 50.0 | |
| 95-47-6 | o-Xylene | 1 | 280. | N | 25.0 | |

5 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
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10/7/2005 07:23:01

New Orleans Laboratory Certifications
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LELAP # 02006

| | | | | | |
|---|---|---|---|---|---|
| | | **Client:** | CRA | | |
| **Client ID:** | SB1-5-6' | **Site:** | None | | |
| **Project:** | STATE G SITE B | **Project No.:** | 2053619 | **Sample Qu:** | |
| **Lab ID:** | 20399422 | **Matrix:** | Soil | **% Moisture:** | Not Corrected |
| **Description:** | None | **Prep Level:** | Soil | **Batch:** | 64656 |
| **Method:** | SW 8015B TPH Diesel & Oil Range Organics | **Units:** | mg/kg | **Target List:** | TPHLOW |
| | | **Collected:** | 08/24/05 | **Received:** | 08/26/05 |
| **Prep Factor:** | 1 **Leached:** n/a | **Prepared:** | 09/29/05 | **Analyzed:** | 09/30/05 14:10 NCM (1) |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| | TPH - Diesel Range Organics (C10-C28) | 1 | 145. | N | 10.0 | |

1 compound(s) reported

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10/7/2005 07:23:01

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Fax: 504.469.0555
LELAP # 02006

| | | | | | |
|---|---|---|---|---|---|
| | | **Client:** | CRA | | |
| **Client ID:** | SB1-5-6' | **Site:** | None | | |
| **Project:** | STATE G SITE B | **Project No.:** | 2053619 | **Sample Qu:** | |
| **Lab ID:** | 20399422 | **Matrix:** | Soil | **% Moisture:** | Not Corrected |
| **Description:** | None | **Prep Level:** | Soil | **Batch:** | 64637 |
| **Method:** | SW 8015B TPH Gasoline Range Organics (C6-C10) | **Units:** | ug/kg | **Target List:** | TPHGPTMED |
| | | **Collected:** | 08/24/05 | **Received:** | 08/26/05 |
| **Prep Factor:** | 1 **Leached:** n/a | **Prepared:** | 09/29/05 | **Analyzed:** | 09/30/05 18:54 CWW (1) |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| | TPH - Gasoline Range Organics (C6-C10) | 1 | ND | N | 2500 | |

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
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Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
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10/7/2005 07:23:01

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St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

| | | | | | |
|---|---|---|---|---|---|
| | | Client: | CRA | | |
| Client ID: | SB1-5-6' | Site: | None | | |
| Project: | STATE G SITE B | Project No.: | 2053619 | Sample Qu: | |
| Lab ID: | 20399422 | Matrix: | Soil | % Moisture: | Not Corrected |
| Description: | None | Prep Level: | Soil | Batch: | 64631 |
| Method: | SW 8021 BTEX | Units: | ug/kg | Target List: | BTEXMED |
| | | Collected: | 08/24/05 | Received: | 08/26/05 |
| Prep Factor: | 1 | Leached: n/a | Prepared: 09/29/05 | Analyzed: | 09/30/05 18:54 cww:tj |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | 1 | ND | N | 25.0 | |
| 100-41-4 | Ethylbenzene | 1 | ND | N | 25.0 | |
| 108-88-3 | Toluene | 1 | ND | N | 25.0 | |
| 1330-20-7 | m,p-Xylene | 1 | ND | N | 50.0 | |
| 95-47-6 | o-Xylene | 1 | ND | N | 25.0 | |

5 compound(s) reported

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10/7/2005 07:23:02

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water - LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health Environmental/ELW/HW - E-10266
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LELAP # 02006

| | | | | | |
|---|---|---|---|---|---|
| | | **Client:** | CRA | | |
| **Client ID:** | SB1-20-21' | **Site:** | None | | |
| **Project:** | STATE G SITE B | **Project No.:** | 2053619 | **Sample Qu:** | |
| **Lab ID:** | 20399423 | **Matrix:** | Soil | **% Moisture:** | Not Corrected |
| **Description:** | None | **Prep Level:** | Soil | **Batch:** | 64656 |
| **Method:** | SW 8015B TPH Diesel & Oil Range Organics | **Units:** | mg/kg | **Target List:** | TPHLOW |
| | | **Collected:** | 08/24/05 | **Received:** | 08/26/05 |
| **Prep Factor:** | 1 | **Leached:** n/a | **Prepared:** | 09/29/05 | **Analyzed:** 09/30/05 14:35 NCM (1) |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| | TPH - Diesel Range Organics (C10-C28) | 1 | 15.3 | N | 10.0 | |

1 compound(s) reported.

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10/7/2005 07:23:02

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LELAP # 02006

| | | | | | |
|---|---|---|---|---|---|
| | | **Client:** | CRA | | |
| **Client ID:** | SB1-20-21' | **Site:** | None | | |
| **Project:** | STATE G SITE B | **Project No.:** | 2053619 | **Sample Qu:** | |
| **Lab ID:** | 20399423 | **Matrix:** | Soil | **% Moisture:** | Not Corrected |
| **Description:** | None | **Prep Level:** | Soil | **Batch:** | 64637 |
| **Method:** | SW-8015B TPH Gasoline Range Organics (C6-C10) | **Units:** | ug/kg | **Target List:** | TPHGPTMED |
| | | **Collected:** | 08/24/05 | **Received:** | 08/26/05 |
| **Prep Factor:** | 1 **Leached:** n/a | **Prepared:** | 09/29/05 | **Analyzed:** | 09/30/05 21:58 CWW (1) |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| | TPH - Gasoline Range Organics (C6-C10) | 1 | ND | N | 2500 | |

1 compound(s) reported.

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10/7/2005 07:23:03

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
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# Report of Laboratory Analysis

Pace Analytical Services, Inc.
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St. Rose , LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

| | | | | | |
|---|---|---|---|---|---|
| | | **Client:** | CRA | | |
| **Client ID:** | SB1-20-21' | **Site:** | None | | |
| **Project:** | STATE G SITE B | **Project No.:** | 2053619 | **Sample Qu:** | |
| **Lab ID:** | 20399423 | **Matrix:** | Soil | **% Moisture:** | Not Corrected |
| **Description:** | None | **Prep Level:** | Soil | **Batch:** | 64631 |
| **Method:** | SW 8021 BTEX | **Units:** | ug/kg | **Target List:** | BTEXMED |
| | | **Collected:** | 08/24/05 | **Received:** | 08/26/05 |
| **Prep Factor:** | 1 | **Leached:** n/a | **Prepared:** | 09/29/05 | **Analyzed:** 09/30/05 21:58 CWW (1) |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | 1 | ND | N | 25.0 | |
| 100-41-4 | Ethylbenzene | 1 | ND | N | 25.0 | |
| 108-88-3 | Toluene | 1 | ND | N | 25.0 | |
| 1330-20-7 | m,p-Xylene | 1 | ND | N | 50.0 | |
| 95-47-6 | o-Xylene | 1 | ND | N | 25.0 | |

5 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
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10/7/2005 07:23:02

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
Puerto Rico - 3449
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Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health, Environmental/EL WHW - E-10266
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USDA Foreign Soil Import (U.S Territories) - S-47270

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St. Rose , LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

| | | | | | |
|---|---|---|---|---|---|
| | | **Client:** | CRA | | |
| **Client ID:** | SB2-1-2' | **Site:** | None | | |
| **Project:** | STATE G SITE B | **Project No.:** | 2053619 | **Sample Qu:** | |
| **Lab ID:** | 20399424 | **Matrix:** | Soil | **% Moisture:** | Not Corrected |
| **Description:** | None | **Prep Level:** | Soil | **Batch:** | 64656 |
| **Method:** | SW 8015B TPH Diesel & Oil Range Organics | **Units:** | mg/kg | **Target List:** | TPHLOW |
| | | **Collected:** | 08/24/05 | **Received:** | 08/26/05 |
| **Prep Factor:** | 1 **Leached:** n/a | **Prepared:** | 09/29/05 | **Analyzed:** | 10/03/05 21:56 NCM (1) |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| | TPH - Diesel Range Organics (C10-C28) | 10 | 5730 | N DI | 100. | |

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
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10/7/2005 07:23:02

New Orleans Laboratory Certifications
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Kansas Dept. of Health- Environmental/ELWHW - E-10266
U.S. Dept. of Agricultural Animal & Plant Health Inspection Services
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Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

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New Orleans Laboratory

| | | | | | |
|---|---|---|---|---|---|
| | | **Client:** | CRA | | |
| **Client ID:** | SB2-1-2' | **Site:** | None | | |
| **Project:** | STATE G SITE B | **Project No.:** | 2053619 | **Sample Qu:** | |
| **Lab ID:** | 20399424 | **Matrix:** | Soil | **% Moisture:** | Not Corrected |
| **Description:** | None | **Prep Level:** | Soil | **Batch:** | 64637 |
| **Method:** | SW 8015B TPH Gasoline Range Organics (C6-C10) | **Units:** | ug/kg | **Target List:** | TPHGPTMED |
| | | **Collected:** | 08/24/05 | **Received:** | 08/26/05 |
| **Prep Factor:** | 1 **Leached:** n/a | **Prepared:** | 09/29/05 | **Analyzed:** | 10/03/05 13:04 cww(1) |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| | TPH - Gasoline Range Organics (C6-C10) | 1 | 30200 | N | 2500 | |

1 compound(s) reported

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Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
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10/7/2005 07:23:02

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Phone: 504.469.0333
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LELAP # 02006

Pace Analytical* New Orleans Laboratory

| | | | | | |
|---|---|---|---|---|---|
| | | **Client:** CRA | | | |
| **Client ID:** SB2-1-2' | | **Site:** None | | | |
| **Project:** STATE G SITE B | | **Project No.:** 2053619 | | **Sample Qu:** | |
| **Lab ID:** 20399424 | | **Matrix:** Soil | | **% Moisture:** Not Corrected | |
| **Description:** None | | **Prep Level:** Soil | | **Batch:** 64631 | |
| **Method:** SW 8021 BTEX | | **Units:** ug/kg | | **Target List:** BTEXMED | |
| | | **Collected:** 08/24/05 | | **Received:** 08/26/05 | |
| **Prep Factor:** 1 | **Leached:** n/a | **Prepared:** 09/29/05 | | **Analyzed:** 10/03/05 13:04 cww (1) | |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | 1 | ND | N | 25.0 | |
| 100-41-4 | Ethylbenzene | 1 | 141. | N | 25.0 | |
| 108-88-3 | Toluene | 1 | ND | N | 25.0 | |
| 1330-20-7 | m,p-Xylene | 1 | 329. | N | 50.0 | |
| 95-47-6 | o-Xylene | 1 | 464. | N | 25.0 | |

5 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit denotes an actual regulatory limit or a client-requested notification limit.
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10/7/2005 07:23:02

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Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

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| | | | |
|---|---|---|---|
| **Client:** | CRA | | |
| **Client ID:** | SB2-5-6' | **Site:** | None |
| **Project:** | STATE G SITE B | **Project No.:** | 2053619 |
| **Sample Qu:** | | | |
| **Lab ID:** | 20399425 | **Matrix:** | Soil |
| **% Moisture:** | Not Corrected | | |
| **Description:** | None | **Prep Level:** | Soil |
| **Batch:** | 64656 | | |
| **Method:** | SW 8015B TPH Diesel & Oil Range Organics | **Units:** | mg/kg |
| **Target List:** | TPHLOW | | |
| | | **Collected:** | 08/24/05 |
| **Received:** | 08/26/05 | | |
| **Prep Factor:** | 1 | **Leached:** | n/a |
| **Prepared:** | 09/29/05 | **Analyzed:** | 09/30/05 15:00 NCM (1) |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| | TPH - Diesel Range Organics (C10-C28) | 1 | 253. | N | 10.0 | |

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit denotes an actual regulatory limit or a client-requested notification limit.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (8) subcontract or field.

10/7/2005 07:23:02

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water - LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87596
Kansas Dept. of Health Environmental/ELWHW - E-10266
U.S. Dept. of Agricultural Animal & Plant Health Inspection Services
USDA Foreign Soil Import (U.S Territories) - S-47270

Pace Analytical®
New Orleans Laboratory

# Report of Laboratory Analysis

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

| | | | | | |
|---|---|---|---|---|---|
| | | **Client:** | CRA | | |
| **Client ID:** | SB2-5-6' | **Site:** | None | | |
| **Project:** | STATE G-SITE B | **Project No.:** | 2053619 | **Sample Qu:** | |
| **Lab ID:** | 20399425 | **Matrix:** | Soil | **% Moisture:** | Not Corrected |
| **Description:** | None | **Prep Level:** | Soil | **Batch:** | 64637 |
| **Method:** | SW 8015B TPH Gasoline Range Organics (C6-C10) | **Units:** | ug/kg | **Target List:** | TPHGPTMED |
| | | **Collected:** | 08/24/05 | **Received:** | 08/26/05 |
| **Prep Factor:** | 1 **Leached:** n/a | **Prepared:** | 09/29/05 | **Analyzed:** | 09/30/05 23:07 CWW (1) |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| | TPH - Gasoline Range Organics (C6-C10) | 1 | ND | N | 2500 | |

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit denotes an actual regulatory limit or a client-requested notification limit.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Brasher City, (4) Houston, or (0) subcontract or field.

10/7/2005 07:23:02

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
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Fax: 504.469.0555
LELAP # 02006

| | | | | | |
|---|---|---|---|---|---|
| | | **Client:** | CRA | | |
| **Client ID:** | SB2-5-6' | **Site:** | None | | |
| **Project:** | STATE G SITE B | **Project No.:** | 2053619 | **Sample Qu:** | |
| **Lab ID:** | 20399425 | **Matrix:** | Soil | **% Moisture:** | Not Corrected |
| **Description:** | None | **Prep Level:** | Soil | **Batch:** | 64631 |
| **Method:** | SW 8021 BTEX | **Units:** | ug/kg | **Target List:** | BTEXMED |
| | | **Collected:** | 08/24/05 | **Received:** | 08/26/05 |
| **Prep Factor:** | 1 | **Leached:** n/a | **Prepared:** | 09/29/05 | **Analyzed:** 09/30/05 23:07 cww (1) |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | 1 | ND | N | 25.0 | |
| 100-41-4 | Ethylbenzene | 1 | ND | N | 25.0 | |
| 108-88-3 | Toluene | 1 | ND | N | 25.0 | |
| 1330-20-7 | m,p-Xylene | 1 | ND | N | 50.0 | |
| 95-47-6 | o-Xylene | 1 | ND | N | 25.0 | |

5 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit denotes an actual regulatory limit or a client-requested notification limit.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

10/7/2005 07:23:02

New Orleans Laboratory Certifications
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Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
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LELAP # 02006

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| | | | |
|---|---|---|---|
| **Client:** CRA | | | |
| **Client ID:** SB2-20-21' | **Site:** None | | |
| **Project:** STATE G SITE B | **Project No.:** 2053619 | **Sample Qu:** | |
| **Lab ID:** 20399426 | **Matrix:** Soil | **% Moisture:** | Not Corrected |
| **Description:** None | **Prep Level:** Soil | **Batch:** | 64656 |
| **Method:** SW 8015B TPH Diesel & Oil Range Organics | **Units:** mg/kg | **Target List:** | TPHLOW |
| | **Collected:** 08/24/05 | **Received:** | 08/26/05 |
| **Prep Factor:** 1 **Leached:** n/a | **Prepared:** 09/29/05 | **Analyzed:** | 09/30/05 15:24 NCM (1) |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| | TPH - Diesel Range Organics (C10-C28) | 1 | ND | N | 10.0 | |

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit denotes an actual regulatory limit or a client-requested notification limit.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

10/7/2005 07:23:02

New Orleans Laboratory Certifications
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LELAP # 02006

| | | | | | |
|---|---|---|---|---|---|
| | | **Client:** | CRA | | |
| **Client ID:** | SB2-20-21' | **Site:** | None | | |
| **Project:** | STATE G SITE B | **Project No.:** | 2053619 | **Sample Qu:** | |
| **Lab ID:** | 20399426 | **Matrix:** | Soil | **% Moisture:** | Not Corrected |
| **Description:** | None | **Prep Level:** | Soil | **Batch:** | 64637 |
| **Method:** | SW 8015B TPH Gasoline Range Organics (C6-C10) | **Units:** | ug/kg | **Target List:** | TPHGPTMED |
| | | **Collected:** | 08/24/05 | **Received:** | 08/26/05 |
| **Prep Factor:** | 1 | **Leached:** n/a | **Prepared:** | 09/29/05 | **Analyzed:** 09/30/05 23:30 CWW (1) |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| | TPH - Gasoline Range Organics (C6-C10) | 1 | ND | N | 2500 | |

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size, Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and w/o denotes not applicable.
Regulatory limit denotes an actual regulatory limit or a client-requested notification limit.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

10/7/2005 07:23:02

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
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Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health, Environmental/EL WHW - E-10268
U.S. Dept. of Agricultural Animal & Plant Health Inspection Services
USDA Foreign Soil Import (U.S Territories) - S-47270

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Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

| | | | | | |
|---|---|---|---|---|---|
| | | **Client:** | CRA | | |
| **Client ID:** | SB2-20-21' | **Site:** | None | | |
| **Project:** | STATE G SITE B | **Project No.:** | 2053619 | **Sample Qu:** | |
| **Lab ID:** | 20399426 | **Matrix:** | Soil | **% Moisture:** | Not Corrected |
| **Description:** | None | **Prep Level:** | Soil | **Batch:** | 64631 |
| **Method:** | SW 8021 BTEX | **Units:** | ug/kg | **Target List:** | BTEXMED |
| | | **Collected:** | 08/24/05 | **Received:** | 08/26/05 |
| **Prep Factor:** | 1 | **Leached:** n/a | **Prepared:** | 09/29/05 | **Analyzed:** 09/30/05 23:30 cww (1) |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | 1 | ND | N | 25.0 | |
| 100-41-4 | Ethylbenzene | 1 | ND | N | 25.0 | |
| 108-88-3 | Toluene | 1 | ND | N | 25.0 | |
| 1330-20-7 | m,p-Xylene | 1 | ND | N | 50.0 | |
| 95-47-6 | o-Xylene | 1 | ND | N | 25.0 | |

$ compound(s) reported

10/7/2005 07:23:02

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
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Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit denotes an actual regulatory limit or a client-requested notification limit.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

New Orleans Laboratory Certifications
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Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
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Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

Client: CRA

Client ID: DUPLICATE
Site: None
Project: STATE G SITE B
Project No.: 2053619
Sample Qu:
Lab ID: 20399427
Matrix: Soil
% Moisture: Not Corrected
Description: None
Prep Level: Soil
Batch: 64656
Method: SW 8015B TPH Diesel & Oil Range Organics
Units: mg/kg
Target List: TPHLOW
Collected: 08/24/05
Received: 08/26/05
Prep Factor: 1
Leached: n/a
Prepared: 09/29/05
Analyzed: 09/30/05 15:49 NCM(1)

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| | TPH - Diesel Range Organics (C10-C28) | 1 | 331. | N | 10.0 | |

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit denotes an actual regulatory limit or a client-requested certification limit.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (9) subcontract or field.

10/7/2005 07:23:02

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (LELAP)/Drinking Water - LA000008
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health, Environmental/EL WHW - E-10266
U.S. Dept. of Agricultural Animal & Plant Health Inspection Services
USDA Foreign Soil Import (U.S Territories) - S-47270

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New Orleans Laboratory

# Report of Laboratory Analysis

Pace Analytical Services, Inc.
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St. Rose , LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

| | | | | | |
|---|---|---|---|---|---|
| | | **Client:** | CRA | | |
| **Client ID:** | DUPLICATE | **Site:** | None | | |
| **Project:** | STATE G SITE B | **Project No.:** | 2053619 | **Sample Qu:** | |
| **Lab ID:** | 20399427 | **Matrix:** | Soil | **% Moisture:** | Not Corrected |
| **Description:** | None | **Prep Level:** | Soil | **Batch:** | 64637 |
| **Method:** | SW 8015B TPH Gasoline Range Organics (C6-C10) | **Units:** | ug/kg | **Target List:** | TPHGPTMED |
| | | **Collected:** | 08/24/05 | **Received:** | 08/26/05 |
| **Prep Factor:** | 1 **Leached:** n/a | **Prepared:** | 09/29/05 | **Analyzed:** | 09/30/05 23:53 cww (1) |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| | TPH - Gasoline Range Organics (C6-C10) | 1 | ND | N | 2500 | |

1 compound(s) reported

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10/7/2005 07:23:02

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water - LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health Environmental/ELAP/HW - E-10266
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LELAP # 02006

| | | | | | |
|---|---|---|---|---|---|
| | | **Client:** | CRA | | |
| **Client ID:** | DUPLICATE | **Site:** | None | | |
| **Project:** | STATE G SITE B | **Project No.:** | 2053619 | **Sample Qu:** | |
| **Lab ID:** | 20399427 | **Matrix:** | Soil | **% Moisture:** | Not Corrected |
| **Description:** | None | **Prep Level:** | Soil | **Batch:** | 64631 |
| **Method:** | SW 8021 BTEX | **Units:** | ug/kg | **Target List:** | BTEXMED |
| | | **Collected:** | 08/24/05 | **Received:** | 08/26/05 |
| **Prep Factor:** | 1 **Leached:** n/a | **Prepared:** | 09/29/05 | **Analyzed:** | 09/30/05 23:53 cww(1) |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | 1 | ND | N | 25.0 | |
| 100-41-4 | Ethylbenzene | 1 | ND | N | 25.0 | |
| 108-88-3 | Toluene | 1 | ND | N | 25.0 | |
| 1330-20-7 | m,p-Xylene | 1 | ND | N | 50.0 | |
| 95-47-6 | o-Xylene | 1 | ND | N | 25.0 | |

5 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit denotes an actual regulatory limit or a client-requested notification limit.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

10/7/2005 07:23:02

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Kansas Dept. of Health, Environmental/EL WHW - E-10266
U.S. Dept. of Agricultural Animal & Plant Health Inspection Services
USDA Foreign Soil Import (U.S Territories) - S-47270

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LELAP # 02006

| | | | | | |
|---|---|---|---|---|---|
| | | **Client:** | CRA | | |
| **Client ID:** | TRIP BLANK | **Site:** | None | | |
| **Project:** | STATE G SITE B | **Project No.:** | 2053619 | **Sample Qu:** | |
| **Lab ID:** | 20399428 | **Matrix:** | Water | **% Moisture:** | n/a |
| **Description:** | None | **Prep Level:** | Water | **Batch:** | 64610 |
| **Method:** | SW 8021 BTEX | **Units:** | ug/L | **Target List:** | BTEXWAT |
| | | **Collected:** | 08/24/05 | **Received:** | 08/26/05 |
| **Prep Factor:** | 1 **Leached:** n/a | **Prepared:** | | **Analyzed:** | 09/27/05 13:51 cww (1) |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | 1 | ND | N | 5.00 | |
| 100-41-4 | Ethylbenzene | 1 | ND | N | 5.00 | |
| 108-88-3 | Toluene | 1 | ND | N | 5.00 | |
| 1330-20-7 | m,p-Xylene | 1 | ND | N | 5.00 | |
| 95-47-6 | o-Xylene | 1 | ND | N | 5.00 | |

5 compound(s) reported

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DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
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10/7/2005 07:23:02

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**Client ID:** SB1-1-2' **Client:** CRA
**Project:** STATE G SITE B **Site:** None
**Lab ID:** 20399421 **Project No.:** 2053619
**Description:** None **Matrix:** Soil **%Moisture:** Not Corrected
**Collected:** 08/24/05 **Received:** 08/26/05

| ParameterName | Method | Batch | DF | Result | Qu | Units | Reporting Limit | Prep. | Analysis | Reg. Limit |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | EPA 325.2 | 64528 | 20 | ND | D2 | mg/kg | 1000 | 05-Oct-05 | 05-Oct-05 16:28 TAE (1) | |

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitability.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

11/7/2005 07:23:03

New Orleans Laboratory Certifications
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Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health, Environmental/ELAP/W - E-10266
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LELAP # 02006

**Client ID:** SB1-5-6' **Client:** CRA
**Project:** STATE G SITE B **Site:** None
**Lab ID:** 20399422 **Project No.:** 2053619
**Description:** None **Matrix:** Soil **%Moisture:** Not Corrected
**Collected:** 08/24/05 **Received:** 08/26/05

| ParameterName | Method | Batch | DF | Result | Qu | Units | Reporting Limit | Prep. | Analysis | | Reg. Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | EPA 325.2 | 64528 | 5 | 1310 | D2 | mg/kg | 250. | 05-Oct-05 | 05-Oct-05 | 16:28 TAE (1) | |

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(Ia) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(Ib) Flash point less than 140 degrees F is hazardous for ignitibility.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

10/7/2005 07:23:03

New Orleans Laboratory Certifications
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Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water - LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health Environmental/EL WHW - E-10266
U.S. Dept. of Agricultural Animal & Plant Health Inspection Services
USDA Foreign Soil Import (U.S Territories) - S-47270

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| | | | |
|---|---|---|---|
| **Client ID:** | SB1-20-21' | **Client:** | CRA |
| **Project:** | STATE G SITE B | **Site:** | None |
| **Lab ID:** | 20399423 | **Project No.:** | 2053619 |
| **Description:** | None | **Matrix:** | Soil |
| | | **Collected:** | 08/24/05 |

**%Moisture:** Not Corrected
**Received:** 08/26/05

| ParameterName | Method | Batch | DF | Result | Qu | Units | Reporting Limit | Prep. | Analysis | | Reg. Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | EPA 325.2 | 64528 | 5 | ND | D2 | mg/kg | 250 | 05-Oct-05 | 05-Oct-05 | 16:28 TAE (1) | |

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitibility.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Boudet City, (4) Houston, or (0) subcontract or field.

10/7/2005 07:23:03

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LELAP # 02006

| | | | |
|---|---|---|---|
| **Client ID:** | SB2-1-2' | **Client:** | CRA |
| **Project:** | STATE G SITE B | **Site:** | None |
| **Lab ID:** | 20399424 | **Project No.:** | 2053619 |
| **Description:** | None | **Matrix:** | Soil |
| | | **Collected:** | 08/24/05 |

**%Moisture:** Not Corrected
**Received:** 08/26/05

| ParameterName | Method | Batch | DF | Result | Qu | Units | Reporting Limit | Prep. | Analysis | Reg. Limit |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | EPA 325.2 | 64528 | 5 | 317. | D2 | mg/kg | 250. | 05-Oct-05 | 05-Oct-05 16:28 TAE (1) | |

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitibility.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (9) subcontract or field.

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**Client ID:** SB2-5-6' **Client:** CRA
**Project:** STATE G SITE B **Site:** None
**Lab ID:** 20399425 **Project No.:** 2053619
**Description:** None **Matrix:** Soil **%Moisture:** Not Corrected
**Collected:** 08/24/05 **Received:** 08/26/05

| ParameterName | Method | Batch | DF | Result | Qu | Units | Reporting Limit | Prep. | Analysis | Reg. Limit |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | EPA 325.2 | 64528 | 5 | 584. | D2 | mg/kg | 250. | 05-Oct-05 | 05-Oct-05 16:28 TAE (1) | |

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitibility.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (8) subcontract or field.

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**Client ID:** SB2-20-21' **Client:** CRA
**Project:** STATE G SITE B **Site:** None
**Lab ID:** 20399426 **Project No.:** 2053619
**Description:** None **Matrix:** Soil **%Moisture:** Not Corrected
**Collected:** 08/24/05 **Received:** 08/26/05

| ParameterName | Method | Batch | DF | Result | Qu | Units | Reporting Limit | Prep. | Analysis | | Reg. Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | EPA 325.2 | 64528 | 5 | ND | D2 | mg/kg | 250. | 05-Oct-05 | 05-Oct-05 | 16:35 TAE (1) | |

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitability.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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**Client ID:** DUPLICATE
**Client:** CRA
**Project:** STATE G SITE B
**Site:** None
**Lab ID:** 20399427
**Project No.:** 2053619
**Description:** None
**Matrix:** Soil
**%Moisture:** Not Corrected
**Collected:** 08/24/05
**Received:** 08/26/05

| ParameterName | Method | Batch | DF | Result | Qu | Units | Reporting Limit | Prep. | Analysis | | Reg. Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | EPA 325.2 | 64528 | 5 | 693. | D2 | mg/kg | 250. | 05-Oct-05 | 05-Oct-05 | 16:35 TAE (1) | |

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitibility.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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LELAP # 02006

**Method:** Med Soil GC Organics **Project:** 2053619

**Batch:** 64637 **LCS:** 20401151 9/30/2005 5:44:00 PM

**Units:** ug/kg **MS:** 20401824 9/30/2005 8:04:00 PM

| Parameter Name | LCS Spike | LCS %Rec | LCSD %Rec | LCS RPD | MS Spike | MS %Rec | MSD %Rec | (1)MS RPD | DUP RPD | QC Limits LCS | QC Limits MS/MSD | Max RPD | Qu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TPH - Gasoline Range Organics (C6-C | 25000 | 118 | | | 25000 | 111 | 112 | 0 | | 48 - 147 | 27 - 150 | 50 | |

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

10/7/2005 07:23:04

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LELAP # 02006

**Method:** Low Soil GC Organics **Project:** 2053619

**Batch:** 64656 **LCS:**

**Units:** mg/kg **MS:** 64656MS 10/3/2005 11:11:00 PM

| Parameter Name | LCS Spike | LCS %Rec | LCSD %Rec | LCS RPD | MS Spike | MS %Rec | MSD %Rec | (1)MS RPD | DUP RPD | QC Limits LCS | QC Limits MS/MSD | Max RPD | Qu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TPH - Diesel Range Organics (C10-C2 | 40 | | | | 400 | 0 * | 0 * | 0 | | 56 - 138 | 10 - 178 | 50 | Q3 |

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

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LELAP # 02006

**Method:** Low Soil GC Organics **Project:** 2053619

**Batch:** 64656 **LCS:** 64656S1 9/30/2005 1:44:00 PM

**Units:** mg/kg **MS:**

| Parameter Name | LCS Spike | LCS %Rec | LCSD %Rec | LCS RPD | MS Spike | MS %Rec | MSD %Rec | (1)MS RPD | DUP RPD | QC Limits LCS | QC Limits MS/MSD | Max RPD | Qu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TPH - Diesel Range Organics (C10-C2 | 40 | 102 | | | 40 | | | | | 56 - 138 | 10 - 178 | 50 | |

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

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LELAP # 02006

**Method:** Water GC Volatile Organics **Project:** 2053619

**Batch:** 64610 **LCS:** 20401006 9/26/2005 3:09:00 PM

**Units:** ug/L **MS:** 20401018 9/26/2005 11:51:00 PM

| Parameter Name | LCS Spike | LCS %Rec | LCSD %Rec | LCS RPD | MS Spike | MS %Rec | MSD %Rec | (1)MS RPD | DUP RPD | QC Limits LCS | QC Limits MS/MSD | Max RPD | Qu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 20 | 109 | 110 | 2 | 20 | 102 | 103 | 0 | | 78 - 127 | 52 - 142 | 25 | |
| Ethylbenzene | 20 | 111 | 112 | 1 | 20 | 103 | 104 | 0 | | 87 - 129 | 54 - 147 | 25 | |
| Toluene | 20 | 110 | 111 | 2 | 20 | 109 | 109 | 0 | | 85 - 131 | 61 - 145 | 25 | |
| m,p-Xylene | 40 | 110 | 111 | 1 | 40 | 105 | 105 | 0 | | 70 - 130 | 56 - 153 | 25 | |
| o-Xylene | 20 | 106 | 107 | 1 | 20 | 103 | 104 | 0 | | 70 - 130 | 61 - 149 | 25 | |

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

10/7/2005 07:23:04

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# Report of Quality Control

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LELAP # 02006

**Method:** Water GC Volatile Organics **Project:** 2053619

**Batch:** 64610 **LCS:** 20401006 9/26/2005 3:09:00 PM

**Units:** ug/L **MS:**

| Parameter Name | LCS Spike | LCS %Rec | LCSD %Rec | LCS RPD | MS Spike | MS %Rec | MSD %Rec | (1)MS RPD | DUP RPD | QC Limits LCS | QC Limits MS/MSD | Max RPD | Qu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-butyl ether (MTBE) | 20 | 103 | 104 | 1 | 20 | | | | | 61 - 130 | 50 - 150 | 25 | |

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.
(1) MS RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.

10/7/2005 07:23:04

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# Report of Quality Control

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LELAP # 02006

**Method:** Water GC Volatile Organics **Project:** 2053619

**Batch:** 64610 **LCS:** 20401658 9/29/2005 11:17:00 AM

**Units:** ug/L **MS:**

| Parameter Name | LCS Spike | LCS %Rec | LCSD %Rec | LCS RPD | MS Spike | MS %Rec | MSD %Rec | (1)MS RPD | DUP RPD | QC Limits LCS | QC Limits MS/MSD | Max RPD | Qu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 20 | 109 | | | 20 | | | | | 78 - 127 | 52 - 142 | 25 | |
| Ethylbenzene | 20 | 111 | | | 20 | | | | | 87 - 129 | 54 - 147 | 25 | |
| Methyl tert-butyl ether (MTBE) | 20 | 106 | | | 20 | | | | | 61 - 130 | 50 - 150 | 25 | |
| Toluene | 20 | 110 | | | 20 | | | | | 85 - 131 | 61 - 145 | 25 | |
| m,p-Xylene | 40 | 110 | | | 40 | | | | | 70 - 130 | 56 - 153 | 25 | |
| o-Xylene | 20 | 106 | | | 20 | | | | | 70 - 130 | 61 - 149 | 25 | |

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

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# Report of Quality Control

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LELAP # 02006

**Method:** Med Soil GC Volatile Organics **Project:** 2053619

**Batch:** 64631 **LCS:** 20401118 9/30/2005 5:21:00 PM

**Units:** ug/kg **MS:** 20401822 9/30/2005 7:17:00 PM

| Parameter Name | LCS Spike | LCS %Rec | LCSD %Rec | LCS RPD | MS Spike | MS %Rec | MSD %Rec | (1)MS RPD | DUP RPD | QC Limits LCS | QC Limits MS/MSD | Max RPD | Qu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1000 | 111 | | | 1000 | 110 | 109 | 1 | | 70 - 128 | 51 - 134 | 50 | |
| Ethylbenzene | 1000 | 116 | | | 1000 | 116 | 115 | 1 | | 81 - 131 | 50 - 153 | 50 | |
| Toluene | 1000 | 113 | | | 1000 | 112 | 112 | 0 | | 80 - 132 | 57 - 139 | 50 | |
| m,p-Xylene | 2000 | 116 | | | 2000 | 116 | 115 | 1 | | 88 - 139 | 61 - 148 | 50 | |
| o-Xylene | 1000 | 113 | | | 1000 | 113 | 112 | 1 | | 88 - 134 | 50 - 164 | 50 | |

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.
(1) MS RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.

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# Report of Batch Surrogate Recovery

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Phone: 504.469.0333
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LELAP # 02006

**Report: 2053619** **Batch: 64610**

| Lab ID | Type and Qualifiers | Sur 1 %Rec | Sur 2 %Rec | Sur 3 %Rec | Sur 4 %Rec | Sur 5 %Rec | Sur 6 %Rec | Sur 7 %Rec | Sur 8 %Rec |
|---|---|---|---|---|---|---|---|---|---|
| 20399428 | Sample N | 94 | | | | | | | |
| 20401005 | BLANK | 89 | | | | | | | |
| 20401006 | LCS | 91 | | | | | | | |
| 20401017 | BLANK | 85 | | | | | | | |
| 20401018 | MS | 96 | | | | | | | |
| 20401019 | MSD | 97 | | | | | | | |
| 20401088 | BLANK | 87 | | | | | | | |
| 20401089 | LCS | 93 | | | | | | | |
| 20401113 | BLANK | 83 | | | | | | | |
| 20401658 | LCS | 92 | | | | | | | |
| | QC limits: | 70-130 | | | | | | | |

Sur 1: 4-Bromofluorobenzene (PID) (S)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an exception.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

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# Report of Batch Surrogate Recovery

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LELAP # 02006

**Report: 2053619** **Batch: 64631**

| Lab ID | Type and Qualifiers | Sur 1 %Rec | Sur 2 %Rec | Sur 3 %Rec | Sur 4 %Rec | Sur 5 %Rec | Sur 6 %Rec | Sur 7 %Rec | Sur 8 %Rec |
|---|---|---|---|---|---|---|---|---|---|
| 20399421 | Sample | 104 | | | | | | | |
| 20399422 | Sample N | 89 | | | | | | | |
| 20399423 | Sample N | 91 | | | | | | | |
| 20399424 | Sample GI | 131* | | | | | | | |
| 20399425 | Sample N | 92 | | | | | | | |
| 20399426 | Sample N | 89 | | | | | | | |
| 20399427 | Sample N | 89 | | | | | | | |
| 20401117 | BLANK | 107 | | | | | | | |
| 20401118 | LCS | 98 | | | | | | | |
| 20401822 | MS | 97 | | | | | | | |
| 20401823 | MSD | 102 | | | | | | | |
| | QC limits: | 70-130 | | | | | | | |

Sur 1: 4-Bromofluorobenzene (PID) (S)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

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# Report of Batch Surrogate Recovery

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Phone: 504.469.0333
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LELAP # 02006

**Report: 2053619** **Batch: 64637**

| Lab ID | Type and Qualifiers | Sur 1 %Rec | Sur 2 %Rec | Sur 3 %Rec | Sur 4 %Rec | Sur 5 %Rec | Sur 6 %Rec | Sur 7 %Rec | Sur 8 %Rec |
|---|---|---|---|---|---|---|---|---|---|
| 20399421 | Sample G1 | | 199* | | | | | | |
| 20399422 | Sample | | 106 | | | | | | |
| 20399423 | Sample | | 108 | | | | | | |
| 20399424 | Sample G1 | | 270* | | | | | | |
| 20399425 | Sample | | 111 | | | | | | |
| 20399426 | Sample | | 105 | | | | | | |
| 20399427 | Sample | | 105 | | | | | | |
| 20401150 | BLANK | | 125 | | | | | | |
| 20401151 | LCS | | 119 | | | | | | |
| 20401824 | MS | | 111 | | | | | | |
| 20401825 | MSD | | 111 | | | | | | |
| | QC limits: | | 70-130 | | | | | | |

Sur 2: 4-Bromofluorobenzene (FID) (S)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

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# Report of Batch Surrogate Recovery

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Report:** 2053619 **Batch:** 64656

| Lab ID | Type and Qualifiers | Sur 1 %Rec | Sur 2 %Rec | Sur 3 %Rec | Sur 4 %Rec | Sur 5 %Rec | Sur 6 %Rec | Sur 7 %Rec | Sur 8 %Rec |
|---|---|---|---|---|---|---|---|---|---|
| 20399421 | Sample P2 | 5D | 512D | | | | | | |
| 20399422 | Sample | 115 | 137 | | | | | | |
| 20399423 | Sample | 109 | 107 | | | | | | |
| 20399424 | Sample DI | 156D | 910D | | | | | | |
| 20399425 | Sample | 106 | 141 | | | | | | |
| 20399426 | Sample | 101 | 98 | | | | | | |
| 20399427 | Sample GI | 116 | 222* | | | | | | |
| 64656B1 | Blank | 103 | 98 | | | | | | |
| 64656MS | Spike DI | 8D | 189D | | | | | | |
| 64656MSD | Spike Dup DI | 21D | 277D | | | | | | |
| 64656S1 | LCS | 113 | 108 | | | | | | |
| | QC limits: | 40-140 | 22-165 | | | | | | |

Sur 1: o-Terphenyl (S)
Sur 2: n-Pentacosane (S)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an exception.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

10/7/2005 07:23:04

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water - LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87585
Kansas Dept. of Health - Environmental/EL WHW - E-10268
U.S. Dept. of Agricultural Animal & Plant Health Inspection Services
USDA Foriegn Soil Import (U.S Territories) - S-47270

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New Orleans Laboratory

# Report of Method Blank

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Lab ID:** 20401005

**Description:** Water Method Blank **Project No.:** 2053619

**Method:** Water GC Volatile Organics **Batch:** 64610 **Units:** ug/L

**Prep Factor:** 1 **Leached:** **Prepared:** **Analyzed:** 09/26/05 14:39 cww (1)

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit |
|---|---|---|---|---|---|
| 71-43-2 | Benzene | 1 | ND | | 0.500 |
| 100-41-4 | Ethylbenzene | 1 | ND | | 0.500 |
| 1634-04-4 | Methyl tert-butyl ether (MTBE) | 1 | ND | | 0.500 |
| 108-88-3 | Toluene | 1 | ND | | 0.500 |
| 1330-20-7 | m,p-Xylene | 1 | ND | | 1.00 |
| 95-47-6 | o-Xylene | 1 | ND | | 0.500 |

6 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

10/7/2005 07:23:05

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water - LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health Environmental/ELAP/W - E-10266
U.S. Dept. of Agricultural Animal & Plant Health Inspection Services
USDA Foreign Soil Import (U.S Territories) - S-47270

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# Report of Method Blank

Pace Analytical Services, Inc.
1000 Riverbend Blvd, Suite F
St. Rose, LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Lab ID:** 20401017

**Description:** Water Method Blank **Project No.:** 2053619

**Method:** Water GC Volatile Organics **Batch:** 64610 **Units:** ug/L

**Prep Factor:** 1 **Leached:** **Prepared:** **Analyzed:** 09/26/05 21:21 CWW(1)

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit |
|---|---|---|---|---|---|
| 71-43-2 | Benzene | 1 | ND | | 0.500 |
| 100-41-4 | Ethylbenzene | 1 | ND | | 0.500 |
| 1634-04-4 | Methyl tert-butyl ether (MTBE) | 1 | ND | | 0.500 |
| 108-88-3 | Toluene | 1 | ND | | 0.500 |
| 1330-20-7 | m,p-Xylene | 1 | ND | | 1.00 |
| 95-47-6 | o-Xylene | 1 | ND | | 0.500 |

6 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Boosler City, (4) Houston, or (0) subcontract or field.

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New Orleans Laboratory Certifications
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Kansas Dept. of Health Environmental/EL WHW - E-10266
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# Report of Method Blank

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1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Lab ID:** 20401088

**Description:** Water Method Blank **Project No.:** 2053619

**Method:** Water GC Volatile Organics **Batch:** 64610 **Units:** ug/L

**Prep Factor:** 1 **Leached:** **Prepared:** **Analyzed:** 09/27/05 11:07 CWW(1)

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit |
|---|---|---|---|---|---|
| 71-43-2 | Benzene | 1 | ND | | 0.500 |
| 100-41-4 | Ethylbenzene | 1 | ND | | 0.500 |
| 1634-04-4 | Methyl tert-butyl ether (MTBE) | 1 | ND | | 0.500 |
| 108-88-3 | Toluene | 1 | ND | | 0.500 |
| 1330-20-7 | m,p-Xylene | 1 | ND | | 1.00 |
| 95-47-6 | o-Xylene | 1 | ND | | 0.500 |

6 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

10/7/2005 07:23:05

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
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Florida Dept. of Health/Hazardous Waste (NELAC) - E87696
Kansas Dept. of Health Environmental/EL WHW - E-10266
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USDA Foreign Soil Import (U.S Territories) - S-47270

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# Report of Method Blank

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Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Lab ID:** 20401113

**Description:** Water Method Blank **Project No.:** 2053619

**Method:** Water GC Volatile Organics **Batch:** 64610 **Units:** ug/L

**Prep Factor:** 1 **Leached:** **Prepared:** **Analyzed:** 09/29/05 10:47 cww n

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit |
|---|---|---|---|---|---|
| 71-43-2 | Benzene | 1 | ND | | 0.500 |
| 100-41-4 | Ethylbenzene | 1 | ND | | 0.500 |
| 1634-04-4 | Methyl tert-butyl ether (MTBE) | 1 | ND | | 0.500 |
| 108-88-3 | Toluene | 1 | ND | | 0.500 |
| 1330-20-7 | m,p-Xylene | 1 | ND | | 1.00 |
| 95-47-6 | o-Xylene | 1 | ND | | 0.500 |

6 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

10/7/2005 07:23:05

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Florida Dept. of Health/Hazardous Waste (NELAC) - E87596
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# Report of Method Blank

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St. Rose, LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Lab ID:** 20401117

**Description:** Med Soil Method Blan **Project No.:** 2053619

**Method:** Med Soil GC Volatile Organics **Batch:** 64631 **Units:** ug/kg

**Prep Factor:** 1 **Leached:** **Prepared:** 29-Sep-05 **Analyzed:** 09/30/05 16:58 CWW(1)

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit |
|---|---|---|---|---|---|
| 71-43-2 | Benzene | 1 | ND | | 25.0 |
| 100-41-4 | Ethylbenzene | 1 | ND | | 25.0 |
| 108-88-3 | Toluene | 1 | ND | | 25.0 |
| 1330-20-7 | m,p-Xylene | 1 | ND | | 50.0 |
| 95-47-6 | o-Xylene | 1 | ND | | 25.0 |

5 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

10/7/2005 07:23:05

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# Report of Method Blank

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Fax: 504.469.0555
LELAP # 02006

**Lab ID:** 20401150
**Description:** Med Soil Method Blan **Project No.:** 2053619
**Method:** Med Soil GC Organics **Batch:** 64637 **Units:** ug/kg

**Prep Factor:** 1 **Leached:** **Prepared:** 29-Sep-05 **Analyzed:** 09/30/05 16:58 cww (1)

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit |
|---|---|---|---|---|---|
| | TPH - Gasoline Range Organics (C6-C | 1 | ND | | 2500 |

1 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

10/7/2005 07:23:05

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# Report of Method Blank

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Lab ID:** 64656B1

**Description:** Low Soil Method Blan **Project No.:** 2053619

**Method:** Low Soil GC Organics **Batch:** 64656 **Units:** mg/kg

**Prep Factor:** 1 **Leached:** **Prepared:** 29-Sep-05 **Analyzed:** 09/30/05 13:19 NCM (1)

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit |
|---|---|---|---|---|---|
| | TPH - Diesel Range Organics (C10-C2 | 1 | ND | | 10.0 |
| | TPH - Oil Range Organics (>C28-C40) | 1 | ND | | 50.0 |

2 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

10/7/2005 07:23:05

New Orleans Laboratory Certifications
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Florida Dept. of Health/Hazardous Waste (NELAC) - E87596
Kansas Dept. of Health Environmental/ELWHW - E-10268
U.S. Dept. of Agricultural Animal & Plant Health Inspection Services
USDA Foriegn Soil Import (U.S Territories) - S-47270

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# Report of Quality Control

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

## Wet Chemistry Quality Control Results

Project No.: 2053619

| Parameter | Batch | Blank | ARL | Units | LCS Spike | LCS %Rec | LCSD %Rec | LCS RPD | MS Spike | MS %Rec | MSD %Rec | (1)MS RPD | DUP RPD | QC Limits LCS | QC Limits MS/MSD | RPD Max | Qu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 64528 | ND | 50.0 | mg/kg | 1050 | 84 * | | | 1000 | 5.6 * | 4.5 * | 9 | | 90 - 120 | 75 - 125 | 20 | |

ARL, denotes Adjusted Reporting Limit , corrected for sample size, dilution and moisture content as applicable.
* denotes recovery outside of QC limits.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

10/7/2005 07:23:05

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Louisiana Dept. of Environmental Quality (LELAP) - 02006
Puerto Rico - 3449
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Kansas Dept. of Health Environmental/EL WtW - E-10256
U.S. Dept. of Agricultural Animal & Plant Health Inspection Services
USDA Foreign Soil Import (U.S Territories) - S-47270

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# Report Qualifiers

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

## Project No.: 2053619

### ALL Qualifiers

| Qualifier | Qualifier Description |
|---|---|
| N | See narrative for a detailed explanation. |

### Analyte Qualifiers

| Qualifier | Qualifier Description |
|---|---|
| G1 | Interferences are present which caused poor surrogate recovery. |

### General Qualifiers

| Qualifier | Qualifier Description |
|---|---|
| D1 | The analysis was performed at a dilution due to the high analyte concentration. |
| D2 | The analysis was performed at a dilution due to the presence of matrix interferences. |

### QC Qualifiers

| Qualifier | Qualifier Description |
|---|---|
| Q3 | The matrix spike recoveries are poor due to the presence of this analyte in the sample at a concentration greater than 4 times the spiked amount. Acceptable method performance for this analyte has been demonstrated by the laboratory control sample. |

### Sample Qualifiers

| Qualifier | Qualifier Description |
|---|---|
| P2 | The sample extract could not be concentrated to the method specified final volume. The reporting limit is elevated accordingly. |



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Kansas Dept. of Health Environmental/ELWHW - E-10266
U.S. Dept. of Agricultural Animal & Plant Health Inspection Services
USDA Foreign Soil Import (U.S Territories) - S-47270

Narrative for Project 2053619

Organic Analyses

Hurricane Katrina necessitated staff evacuation and instrument and facility shut-down for approximately 3 weeks. Although the staff was able to secure the facility and database prior to the storm, there was insufficient time available to analyze all samples or to transfer samples to other locations before expiration of the holding time limits and before the temperature in the coolers rose above the regulatory limits. The facility power was out of service for approximately 2 days. The samples included in this project were extracted outside the holding time limit for TPH and were analyzed outside the holding time limit for GC volatile organics, based on client's instructions.

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**The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.**

875382

**Section A** — Required Client Information:

Company: CHEVRONTEXACO/CEMC
Address: 11111 S. Wilcrest Dr
Houston TX 77099
ATTN: Scott Turner
Phone: 281 561 3653 Fax: 8667184709

**Section B** — Required Client Information:

Report To: James Bruce
Copy To:
Invoice To: CRA, Midland, Tx
P.O.:
Project Name: Stage G - Site B
Project Number: 042079

Page: of

Client Information (Check quote/contract):
Requested Due Date: *TAT:

*Turn around time less than 14 days subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.
Turn Around Time (TAT) in calendar days.

**Section C** — To Be Completed by Pace Analytical and Client

Quote Reference:
Project Manager:
Project #:
Profile #:

**Section D** — Required Client Information:

**SAMPLE ID**

One character per box.
(A-Z, 0-9 / .-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

| MATRIX | CODE |
|---|---|
| DRINKING WATER | DW |
| GROUNDWATER | GW |
| SURFACE WATER | SW |
| WASTE WATER | WW |
| PRODUCT | P |
| SOIL | SL |
| OIL | OL |
| WIPE | WP |
| AIR | AR |
| OTHER | OT |

| ITEM # | SAMPLE ID | MATRIX CODE | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED START DATE | COLLECTED START TIME | COLLECTED END DATE | COLLECTED END TIME | SAMPLE TEMP AT COLLECTION | Preservatives: Unpreserved | $H_2SO_4$ | $HNO_3$ | HCl | NaOH | $Na_2S_2O_3$ | Methanol | Other ICE | Requested Analysis: 8015 DRO/GRO; BTEX 8021B; CHLORIDE 300.0 | Remarks / Lab ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SB1-1-2' | SL | G | 8/24 | 1115 | | | | | | | | | | | X | X X X | |
| 2 | SB1-5-6' | | | | 1120 | | | | | | | | | | | | X X X | |
| 3 | SB1-20-21' | | | | 1135 | | | | | | | | | | | | X X X | |
| 4 | SB2-1-2' | | | | 1147 | | | | | | | | | | | | X X X | |
| 5 | SB2-5-6' | | | | 1150 | | | | | | | | | | | | X X X | |
| 6 | SB2-20-21' | | | | 1155 | | | | | | | | | | | | X X X | |
| 7 | DUPLICATE | | | | | | | | | | | | | | | | X X X | |
| 8 | TRIP BLANK | WT | | | | | | | | | | | | | | | X | |
| 9 | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | TR TM | |
| 12 | | | | | | | | | | | | | | | | | | |

**SITE LOCATION**
☐ NC ☐ SC ☐ GA
☒ Other NM

**REGULATORY AGENCY**
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☒ Other NMCD

| RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME |
|---|---|---|---|---|---|
| JAB / CRA | 8/25/05 | 1430 | | | |
| | | | | | |
| | | | | | |

**SAMPLE CONDITION**

| | |
|---|---|
| Temp in °C | |
| Received on Ice | Y/N |
| Sealed Cooler | Y/N |
| Samples Intact | Y/N |

**SAMPLE NOTES**

**Additional Comments:**

4

**SAMPLER NAME AND SIGNATURE**

PRINT Name of SAMPLER: Jim Bruce
SIGNATURE of SAMPLER: JAB
DATE Signed: (MM / DD / YY) 08/25/05

**SEE REVERSE SIDE FOR INSTRUCTIONS**

Form COC01 Rev. 0304

Pace Analytical®
New Orleans Laboratory

Pace Analytical Services, Inc.
1000 Riverbend Blvd, Suite F
Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

October 11, 2005

James Ornelas
CRA
2135 S. Loop 250 West
Midland, TX 79703

RE: Project: 2053616
RE: Project ID: STATE G/042079

Dear James Ornelas:

Enclosed are the analytical results for sample(s) received by the laboratory on August 26, 2005. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Cindy Olavesen

Cindy Olavesen

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

Pace Analytical®
New Orleans Laboratory

# Report of Laboratory Analysis

# Project Number: 2053616

ACCREDITED IN ACCORDANCE WITH nelac

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# Sample Cross Reference Report

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Client:** CRA

**Project:** STATE G/042079

**Project No.:** 2053616

| Sample ID | Lab ID | Matrix | Collection Date/Time | | Received Date/Time | |
|---|---|---|---|---|---|---|
| SITE A SOIL CHARA. | 20399405 | Soil | 08/24/2005 | 12:15 | 08/26/2005 | 10:15 |
| SITE B SOIL CHARA. | 20399406 | Soil | 08/24/2005 | 12:10 | 08/26/2005 | 10:15 |

# Report of Laboratory Analysis

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

Pace Analytical New Orleans Laboratory

| | | | |
|---|---|---|---|
| | | **Client:** CRA | |
| **Client ID:** SITE A SOIL CHARA. | | **Site:** None | |
| **Project:** STATE G/042079 | | **Project No.:** 2053616 | **Sample Qu:** |
| **Lab ID:** 20399405 | | **Matrix:** Soil | **% Moisture:** Not Corrected |
| **Description:** None | | **Prep Level:** Soil | **Batch:** 64656 |
| **Method:** SW 8015B TPH Diesel & Oil Range Organics | | **Units:** mg/kg | **Target List:** TPHLOW |
| | | **Collected:** 08/24/05 | **Received:** 08/26/05 |
| **Prep Factor:** 1 | **Leached:** n/a | **Prepared:** 09/29/05 | **Analyzed:** 09/30/05 19:08 NCM |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| | TPH - Diesel Range Organics (C10-C28) | 1 | 115. | N | 10.0 | |

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit denotes an actual regulatory limit or a client-requested notification limit.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

10/11/2005 15:51:28

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
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Pace Analytical
New Orleans Laboratory

# Report of Laboratory Analysis

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Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

| | | | | | |
|---|---|---|---|---|---|
| | | **Client:** | CRA | | |
| **Client ID:** | SITE A SOIL CHARA. | **Site:** | None | | |
| **Project:** | STATE G/042079 | **Project No.:** | 2053616 | **Sample Qu:** | |
| **Lab ID:** | 20399405 | **Matrix:** | Soil | **% Moisture:** | Not Corrected |
| **Description:** | None | **Prep Level:** | Soil | **Batch:** | 64637 |
| **Method:** | SW 8015B TPH Gasoline Range Organics (C6-C10) | **Units:** | ug/kg | **Target List:** | TPHGPTMED |
| | | **Collected:** | 08/24/05 | **Received:** | 08/26/05 |
| **Prep Factor:** | 1 **Leached:** n/a | **Prepared:** | 09/29/05 | **Analyzed:** | 10/01/05 05:16 cww |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| | TPH - Gasoline Range Organics (C6-C10) | 1 | ND | N | 2500 | |

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit denotes an actual regulatory limit or a client-requested notification limit.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

10/11/2005 15:51:28

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water - LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health Environmental/ELWHW - E-10266
U.S. Dept. of Agricultural Animal & Plant Health Inspection Services
USDA Foreign Soil Import (U.S Territories) - S-47270

Pace Analytical®
New Orleans Laboratory

# Report of Laboratory Analysis

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

Client: CRA

Client ID: SITE A SOIL CHARA.
Site: None
Project: STATE G/042079
Project No.: 2053616
Sample Qu:
Lab ID: 20399405
Matrix: Soil
% Moisture: Not Corrected
Description: None
Prep Level: Soil
Batch: 64631
Method: SW 8021 BTEX
Units: ug/kg
Target List: BTEXMED
Collected: 08/24/05
Received: 08/26/05
Prep Factor: 1
Leached: n/a
Prepared: 09/29/05
Analyzed: 10/01/05 05:16 cww

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | 1 | ND | N | 25.0 | |
| 100-41-4 | Ethylbenzene | 1 | ND | N | 25.0 | |
| 108-88-3 | Toluene | 1 | ND | N | 25.0 | |
| 1330-20-7 | m,p-Xylene | 1 | ND | N | 50.0 | |
| 95-47-6 | o-Xylene | 1 | ND | N | 25.0 | |

5 compound(s) reported

10/11/2005 15:51:28

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Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit denotes an actual regulatory limit or a client-requested notification limit.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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New Orleans Laboratory

# Report of Laboratory Analysis

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70097
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

Client: CRA

| | | | | | |
|---|---|---|---|---|---|
| **Client ID:** | SITE B SOIL CHARA. | **Site:** | None | | |
| **Project:** | STATE G/042079 | **Project No.:** | 2053616 | **Sample Qu:** | |
| **Lab ID:** | 20399406 | **Matrix:** | Soil | **% Moisture:** | Not Corrected |
| **Description:** | None | **Prep Level:** | Soil | **Batch:** | 64656 |
| **Method:** | SW 8015B TPH Diesel & Oil Range Organics | **Units:** | mg/kg | **Target List:** | TPHLOW |
| | | **Collected:** | 08/24/05 | **Received:** | 08/26/05 |
| **Prep Factor:** | 5 | **Leached:** n/a | **Prepared:** | 09/29/05 | **Analyzed:** 10/03/05 21:31 NCM |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| | TPH - Diesel Range Organics (C10-C28) | 10 | 17700 | N P2 | 500 | |

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
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Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

10/11/2005 15:51:28

New Orleans Laboratory Certifications
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Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water - LA000008
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health Environmental/ELWHW - E-10266
U.S. Dept. of Agricultural Animal & Plant Health Inspection Services
USDA Foreign Soil Import (U.S Territories) - S-47270

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# Report of Laboratory Analysis

Pace Analytical Services, Inc.
1000 Riverbend Blvd, Suite F
St. Rose, LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

| | | | | | |
|---|---|---|---|---|---|
| | | Client: | CRA | | |
| Client ID: | SITE B SOIL CHARA. | Site: | None | | |
| Project: | STATE G/042079 | Project No.: | 2053616 | Sample Qu: | |
| Lab ID: | 20399406 | Matrix: | Soil | % Moisture: | Not Corrected |
| Description: | None | Prep Level: | Soil | Batch: | 64637 |
| Method: | SW 8015B TPH Gasoline Range Organics (C6-C10) | Units: | ug/kg | Target List: | TPHGPTMED |
| | | Collected: | 08/24/05 | Received: | 08/26/05 |
| Prep Factor: | 1 Leached: n/a | Prepared: | 09/29/05 | Analyzed: | 10/01/05 05:39 cww |

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| | TPH - Gasoline Range Organics (C6-C10) | 1 | ND | N | 2500 | |

1 compound(s) reported

10/11/2005 15:51:28

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit denotes an actual regulatory limit or a client-requested notification limit.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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New Orleans Laboratory

# Report of Laboratory Analysis

Pace Analytical Services, Inc.
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St. Rose , LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

Client: CRA

Client ID: SITE B SOIL CHARA.
Site: None
Project: STATE G/042079
Project No.: 2053616
Sample Qu:
Lab ID: 20399406
Matrix: Soil
% Moisture: Not Corrected
Description: None
Prep Level: Soil
Batch: 64631
Method: SW 8021 BTEX
Units: ug/kg
Target List: BTEXMED
Collected: 08/24/05
Received: 08/26/05
Prep Factor: 1
Leached: n/a
Prepared: 09/29/05
Analyzed: 10/01/05 05:39 cww

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | 1 | ND | N | 25.0 | |
| 100-41-4 | Ethylbenzene | 1 | ND | N | 25.0 | |
| 108-88-3 | Toluene | 1 | ND | N | 25.0 | |
| 1330-20-7 | m,p-Xylene | 1 | ND | N | 50.0 | |
| 95-47-6 | o-Xylene | 1 | ND | N | 25.0 | |

5 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
Regulatory limit denotes an actual regulatory limit or a client-requested notification limit.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

10/11/2005 15:51:28

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
Puerto Rico - 3449
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Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health Environmental/ELWHW - E-10266
U.S. Dept. of Agricultural Animal & Plant Health Inspection Services
USDA Foreign Soil Import (U.S Territories) - S-47270

# Report of Laboratory Analysis

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

Pace Analytical® New Orleans Laboratory

**Client ID:** SITE A SOIL CHARA. **Client:** CRA

**Project:** STATE G/042079 **Site:** None

**Lab ID:** 20399405 **Project No.:** 2053616

**Description:** None **Matrix:** Soil **%Moisture:** Not Corrected

**Collected:** 08/24/05 **Received:** 08/26/05

| ParameterName | Method | Batch | DF | Result | Qu | Units | Reporting Limit | Prep. | Analysis | | Reg. Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cyanide, Reactive | SW-846 7.3.3. | 64526 | 1 | ND | | mg/kg | 25.0 | 05-Oct-05 | 05-Oct-05 16:18 | TAE (1) | |
| Ignitability | SW-846 7.1.2 | 64488 | 1 | 0.000000 | | deg C | 0.000000 | 27-Aug-05 | 27-Aug-05 14:30 | CBB (1) | |
| Ignites by flame | SW-846 7.1.2 | 64488 | 1 | 0.000000 | | deg C | 0.000000 | 27-Aug-05 | 27-Aug-05 14:30 | CBB (1) | |
| Ignites spontaneously | SW-846 7.1.2 | 64488 | 1 | 0.000000 | | deg C | 0.000000 | 27-Aug-05 | 27-Aug-05 14:30 | CBB (1) | |
| Ignites when agitated | SW-846 7.1.2 | 64488 | 1 | 0.000000 | | deg C | 0.000000 | 27-Aug-05 | 27-Aug-05 14:30 | CBB (1) | |
| Ignites with moisture | SW-846 7.1.2 | 64488 | 1 | 0.000000 | | deg C | 0.000000 | 27-Aug-05 | 27-Aug-05 14:30 | CBB (1) | |
| pH | EPA 9045 | 64489 | 1 | 8.08 | | Std. Units | | 27-Aug-05 | 27-Aug-05 11:46 | CBB (1) | |
| Sulfide, Reactive | SW-846 7.3.4. | 64525 | 1 | 237. | | mg/kg | 49.8 | 21-Sep-05 | 21-Sep-05 11:30 | SSR (1) | |

8 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitibility.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (8) subcontract or field.

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New Orleans Laboratory Certifications
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Florida Dept. of Health/Hazardous Waste (NELAC) - E87599
Kansas Dept. of Health Environmental/ELWHW - E-10266
U.S. Dept. of Agricultural Animal & Plant Health Inspection Services
USDA Foreign Soil Import (U.S Territoies) - S-47270

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# Report of Laboratory Analysis

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Client ID:** SITE B SOIL CHARA
**Client:** CRA
**Project:** STATE G/042079
**Site:** None
**Lab ID:** 20399406
**Project No.:** 2053616
**Description:** None
**Matrix:** Soil
**%Moisture:** Not Corrected
**Collected:** 08/24/05
**Received:** 08/26/05

| ParameterName | Method | Batch | DF | Result | Qu | Units | Reporting Limit | Prep. | Analysis | | Reg. Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cyanide, Reactive | SW-846 7.3.3. | 64526 | 1 | ND | | mg/kg | 25.0 | 05-Oct-05 | 05-Oct-05 | 16:18 TAE (1) | |
| Ignitability | SW-846 7.1.2 | 64488 | 1 | 0.000000 | | deg C | 0.000000 | 27-Aug-05 | 27-Aug-05 | 14:30 CBB (1) | |
| Ignites by flame | SW-846 7.1.2 | 64488 | 1 | 0.000000 | | deg C | 0.000000 | 27-Aug-05 | 27-Aug-05 | 14:30 CBB (1) | |
| Ignites spontaneously | SW-846 7.1.2 | 64488 | 1 | 0.000000 | | deg C | 0.000000 | 27-Aug-05 | 27-Aug-05 | 14:30 CBB (1) | |
| Ignites when agitated | SW-846 7.1.2 | 64488 | 1 | 0.000000 | | deg C | 0.000000 | 27-Aug-05 | 27-Aug-05 | 14:30 CBB (1) | |
| Ignites with moisture | SW-846 7.1.2 | 64488 | 1 | 0.000000 | | deg C | 0.000000 | 27-Aug-05 | 27-Aug-05 | 14:30 CBB (1) | |
| pH | EPA 9045 | 64489 | 1 | 8.06 | | Std. Units | | 27-Aug-05 | 27-Aug-05 | 11:46 CBB (1) | |
| Sulfide, Reactive | SW-846 7.3.4. | 64525 | 1 | 150. | | mg/kg | 49.7 | 21-Sep-05 | 21-Sep-05 | 11:30 SSR (1) | |

8 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
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For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitibility.
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New Orleans Laboratory Certifications
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Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health, Environments/EL WHW - E-10266
U.S. Dept. of Agricultural Animal & Plant Health Inspection Services
USDA Foriegn Soil Import (U.S Territoies) - S-47270

Pace Analytical
New Orleans Laboratory

# Report of Quality Control

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Method:** Med Soil GC Organics **Project:** 2053616

**Batch:** 64637 **LCS:** 20401151 9/30/2005 5:44:00 PM

**Units:** ug/kg **MS:** 20401824 9/30/2005 8:04:00 PM

| Parameter Name | LCS Spike | LCS %Rec | LCSD %Rec | LCS RPD | MS Spike | MS %Rec | MSD %Rec | (1)MS RPD | DUP RPD | QC Limits LCS | QC Limits MS/MSD | Max RPD | Qu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TPH - Gasoline Range Organics (C6-C | 25000 | 118 | | | 25000 | 111 | 112 | 0 | | 48 - 147 | 27 - 150 | 50 | |

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

10/11/2005.15:51:29

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# Report of Quality Control

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Method:** Low Soil GC Organics **Project:** 2053616

**Batch:** 64656 **LCS:**

**Units:** mg/kg **MS:** 64656MS 10/3/2005 11:11:00 PM

| Parameter Name | LCS Spike | LCS %Rec | LCSD %Rec | LCS RPD | MS Spike | MS %Rec | MSD %Rec | (1)MS RPD | DUP RPD | QC Limits LCS | QC Limits MS/MSD | Max RPD | Qu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TPH - Diesel Range Organics (C10-C2 | 40 | | | | 400 | 0 * | 0 * | 0 | | 56 - 138 | 10 - 178 | 50 | Q3 |

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

10/11/2005 15:51:29

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# Report of Quality Control

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1000 Riverbend Blvd. Suite F
St. Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Method:** Low Soil GC Organics **Project:** 2053616

**Batch:** 64656 **LCS:** 64656S1 9/30/2005 1:44:00 PM

**Units:** mg/kg **MS:**

| Parameter Name | LCS Spike | LCS %Rec | LCSD %Rec | LCS RPD | MS Spike | MS %Rec | MSD %Rec | (1)MS RPD | DUP RPD | QC Limits LCS | QC Limits MS/MSD | Max RPD | Qu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TPH - Diesel Range Organics (C10-C2 | 40 | 102 | | | 40 | | | | | 56 - 138 | 10 - 178 | 50 | |

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.
(1) MS RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.

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# Report of Quality Control

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Method:** Med Soil GC Volatile Organics **Project:** 2053616

**Batch:** 64631 **LCS:** 20401118 9/30/2005 5:21:00 PM

**Units:** ug/kg **MS:** 20401822 9/30/2005 7:17:00 PM

| Parameter Name | LCS Spike | LCS %Rec | LCSD %Rec | LCS RPD | MS Spike | MS %Rec | MSD %Rec | (1)MS RPD | DUP RPD | QC Limits LCS | QC Limits MS/MSD | Max RPD | Qu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| o-Xylene | 1000 | 113 | | | 1000 | 113 | 112 | 1 | | 88 - 134 | 50 - 164 | 50 | |
| m,p-Xylene | 2000 | 116 | | | 2000 | 116 | 115 | 1 | | 88 - 139 | 61 - 148 | 50 | |
| Toluene | 1000 | 113 | | | 1000 | 112 | 112 | 0 | | 80 - 132 | 57 - 139 | 50 | |
| Ethylbenzene | 1000 | 116 | | | 1000 | 116 | 115 | 1 | | 81 - 131 | 50 - 153 | 50 | |
| Benzene | 1000 | 111 | | | 1000 | 110 | 109 | 1 | | 70 - 128 | 51 - 134 | 50 | |

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.
(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

10/11/2005 15:51:29

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# Report of Batch Surrogate Recovery

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Report: 2053616** **Batch: 64631**

| Lab ID | Type and Qualifiers | Sur 1 %Rec | Sur 2 %Rec | Sur 3 %Rec | Sur 4 %Rec | Sur 5 %Rec | Sur 6 %Rec | Sur 7 %Rec | Sur 8 %Rec |
|---|---|---|---|---|---|---|---|---|---|
| 20399405 | Sample N | 92 | | | | | | | |
| 20399406 | Sample N | 90 | | | | | | | |
| | QC limits: | 70-130 | | | | | | | |

Sur 1: 4-Bromofluorobenzene (PID) (S)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

10/11/2005 15:51:29

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
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Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water - LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health Environmental/ELWHW - E-10266
U.S. Dept. of Agricultural Animal & Plant Health Inspection Services
USDA Foreign Soil Import (U.S.Territories) - S-47270

Pace Analytical*
New Orleans Laboratory

# Report of Batch Surrogate Recovery

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Report: 2053616** **Batch: 64637**

| Lab ID | Type and Qualifiers | Sur 1 %Rec | Sur 2 %Rec | Sur 3 %Rec | Sur 4 %Rec | Sur 5 %Rec | Sur 6 %Rec | Sur 7 %Rec | Sur 8 %Rec |
|---|---|---|---|---|---|---|---|---|---|
| 20399405 | Sample | | 109 | | | | | | |
| 20399406 | Sample | | 104 | | | | | | |
| QC limits: | | | 70-130 | | | | | | |

Sur 2: 4-Bromofluorobenzene (FID) (S)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

10/11/2005 15:31:29

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# Report of Batch Surrogate Recovery

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Phone: 504.469.0333
Fax: 504.468.0555
LELAP # 02006

**Report: 2053616** **Batch: 64656**

| Lab ID | Type and Qualifiers | Sur 1 %Rec | Sur 2 %Rec | Sur 3 %Rec | Sur 4 %Rec | Sur 5 %Rec | Sur 6 %Rec | Sur 7 %Rec | Sur 8 %Rec |
|---|---|---|---|---|---|---|---|---|---|
| 20399405 | Sample | 119 | 132 | | | | | | |
| 20399406 | Sample P2 | 36D | 1141D | | | | | | |
| 64656B1 | Blank | 103 | 98 | | | | | | |
| 64656MS | Spike D1 | 8D | 189D | | | | | | |
| 64656MSD | Spike Dup D1 | 21D | 277D | | | | | | |
| 64656S1 | LCS | 113 | 108 | | | | | | |
| | QC limits: | 40-140 | 22-165 | | | | | | |

Sur 1: o-Terphenyl (S)
Sur 2: n-Pentacosane (S)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

10/11/2005 15:51:29

Pace Analytical*
New Orleans Laboratory

# Report of Method Blank

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Lab ID:** 20401117

**Description:** Med Soil Method Blan **Project No.:** 2053616

**Method:** Med Soil GC Volatile Organics **Batch:** 64631 **Units:** ug/kg

**Prep Factor:** 1 **Leached:** **Prepared:** 29-Sep-05 **Analyzed:** 09/30/05 16:58 cww

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit |
|---|---|---|---|---|---|
| 71-43-2 | Benzene | 1 | ND | | 25.0 |
| 100-41-4 | Ethylbenzene | 1 | ND | | 25.0 |
| 108-88-3 | Toluene | 1 | ND | | 25.0 |
| 1330-20-7 | m,p-Xylene | 1 | ND | | 50.0 |
| 95-47-6 | o-Xylene | 1 | ND | | 25.0 |

5 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

10/11/2005 15:51:29

Pace Analytical
New Orleans Laboratory

# Report of Method Blank

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Lab ID:** 20401150
**Description:** Med Soil Method Blan **Project No.:** 2053616
**Method:** Med Soil GC Organics **Batch:** 64637 **Units:** ug/kg

**Prep Factor:** 1 **Leached:** **Prepared:** 29-Sep-05 **Analyzed:** 09/30/05 16:58 cww

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit |
|---|---|---|---|---|---|
| | TPH - Gasoline Range Organics (C6-C | 1 | ND | | 2500 |

1 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

10/11/2005 15:51:29

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water - LA000006
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health Environmental/EL WHW - E-10266
U.S. Dept. of Agricultural Animal & Plant Health Inspection Services
USDA Foreign Soil Import (U.S Territories) - S-47270

# Report of Method Blank

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

Lab ID: 64656B1

Description: Low Soil Method Blan  Project No.: 2053616

Method: Low Soil GC Organics  Batch: 64656  Units: mg/kg

Prep Factor: 1  Leached:  Prepared: 29-Sep-05  Analyzed: 09/30/05 13:19 NCM

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit |
|---|---|---|---|---|---|
| | TPH - Diesel Range Organics (C10-C2 | 1 | ND | | 10.0 |
| | TPH - Oil Range Organics (>C28-C40) | 1 | ND | | 50.0 |

2 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

10/11/2005 15:51:29

Pace Analytical
New Orleans Laboratory

# Report of Quality Control

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

## et Chemistry Quality Control Results

Project No.: 2053616

| Parameter | Batch | Blank | ARL | Units | LCS Spike | LCS %Rec | LCSD %Rec | LCS RPD | MS Spike | MS %Rec | MSD %Rec | (1)MS RPD | DUP RPD | QC Limits LCS | QC Limits MS/MSD | RPD Max | Qu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| yanide, Reac | 64526 | ND | 25.0 | mg/kg | 100 | 7 | | | 100 | 19.2 | | | | 1 - 50 | 1 - 50 | 20 | |
| H | 64489 | | | L Units | 7 | 86 * | | | | | | | 4 | 99 - 101 | - | 20 | |
| fide, Reacti | 64525 | ND | 50.0 | mg/kg | 500 | 48 | | | 497 | 21.8 | | | 23. | 1 - 50 | 1 - 50 | 20 | |

10/11/2005 11:51:00

ARL denotes Adjusted Reporting Limit , corrected for sample size, dilution and moisture content as applicable.
denotes recovery outside of QC limits.
MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
Puerto Rico - 3449
Louisiana Dept. of Health and Hospitals (ELAP)/Drinking Water - LA000005
Florida Dept. of Health/Hazardous Waste (NELAC) - E87595
Kansas Dept. of Health Environmental/ELWHW - E-10266
U.S. Dept. of Agricultural Animal & Plant Health Inspection Services
USDA Foreign Soil Import (U.S Territories) - S-47270

Pace Analytical
New Orleans Laboratory

# Report Qualifiers

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087
Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

## Project No.: 2053616

### ALL Qualifiers

| Qualifier | Qualifier Description |
|---|---|
| N | See narrative for a detailed explanation. |

### Analyte Qualifiers

| Qualifier | Qualifier Description |
|---|---|
| J | This estimated value for the analyte is below the adjusted reporting limit but above the instrument reporting limit. |

### QC Qualifiers

| Qualifier | Qualifier Description |
|---|---|
| Q3 | The matrix spike recoveries are poor due to the presence of this analyte in the sample at a concentration greater than 4 times the spiked amount. Acceptable method performance for this analyte has been demonstrated by the laboratory control sample. |

### Sample Qualifiers

| Qualifier | Qualifier Description |
|---|---|
| P2 | The sample extract could not be concentrated to the method specified final volume. The reporting limit is elevated accordingly. |

Narrative for Project 2053616

Organic Analyses

Hurricane Katrina necessitated staff evacuation and instrument and facility shut-down for approximately 3 weeks. Although the staff was able to secure the facility and database prior to the storm, there was insufficient time available to analyze all samples or to transfer samples to other locations before expiration of the holding time limits and before the temperature in the coolers rose above the regulatory limits. The facility power was out of service for approximately 2 days. The samples included in this project were extracted outside the holding time limit for TPH and were analyzed outside the holding time limit for GC volatile organics, based on client's instructions.

Pace Analytical®
www.pacelabs.com

**The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.**

875381

Page: 1 of 1

**Section A** — Required Client Information:

Company: CHEVRON TEXACO/CEMC
Address: 11111 S. Wilcrest Dr
Houston TX 77099
ATTN: Scott Turner
Phone: 2815213653 Fax: 8667184709

**Section B** — Required Client Information:

Report To: James Cornelius
Copy To:
Invoice To: CRA
213 S. Loop 250 W, Midland Tx
P.O.:
Project Name: SMAE C
Project Number: 042079

Client Information (Check quote/contract):
Requested Due Date: *TAT: 14

*Turn around time less than 14 days subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.
-Turn Around Time (TAT) in calendar days.

**Section C** — To Be Completed by Pace Analytical and Client

Quote Reference:
Project Manager:
Project #:
Profile #:

**Section D** — Required Client Information:

**SAMPLE ID**

One character per box.
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

| MATRIX | CODE |
|---|---|
| DRINKING WATER | DW |
| GROUNDWATER | GW |
| SURFACE WATER | SW |
| WASTE WATER | WW |
| PRODUCT | P |
| SOIL | SL |
| OIL | OL |
| WIPE | WP |
| AIR | AR |
| OTHER | OT |

| ITEM # | SAMPLE ID | MATRIX CODE | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED START DATE | COLLECTED START TIME | COLLECTED END DATE | COLLECTED END TIME | SAMPLE TEMP AT COLLECTION | Preservatives: Unpreserved | $H_2SO_4$ | $HNO_3$ | HCl | NaOH | $Na_2S_2O_3$ | Methanol | Other ICE | Requested Analysis: BTEX 8021B | Remarks / Lab ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SITE A SOIL CHEM | SL | C | 8/24 | 1215 | | | | | | | | | | | X | X | |
| 2 | SITE B SOIL CHEM | SL | C | 8/24 | 1210 | | | | | | | | | | | X | X | |
| 3 | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | TR | BM |
| 12 | | | | | | | | | | | | | | | | | | |

**SITE LOCATION**
☐ NC ☐ SC ☐ GA ☒ Other NM

**REGULATORY AGENCY**
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☒ Other NMOCD

| RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME |
|---|---|---|---|---|---|
| JAR / CRA | 8/25/05 | 1430 | | | |
| | | | | | |
| | | | | | |

**SAMPLE CONDITION**

| | |
|---|---|
| Temp in °C | |
| Received on Ice | Y/N |
| Sealed Cooler | Y/N |
| Samples Intact | Y/N |

**SAMPLE NOTES**

**Additional Comments:**

4

**SAMPLER NAME AND SIGNATURE**

PRINT Name of SAMPLER: Jim Buice
SIGNATURE of SAMPLER:
DATE Signed: (MM / DD / YY) 08/25/05

**SEE REVERSE SIDE FOR INSTRUCTIONS**

Form COC01 Rev. 0304

# APPENDIX D

## Driller's Soil Boring Logs

# WHITE DRILLING COMPANY, INC.
## ENVIRONMENTAL/GEOTECHNICAL FIELD LOG



Client: CRA

| | | |
|---|---|---|
| Project: Chevron/Texaco – State G Lease - Site B | Date Started: 8/24/05 | Well No.: SB-1 |
| Project Address: Lea County, N.M.<br>State/City/Zip: | Date Completed: 8/24/05 | Total Depth: 20.0 |
| Well Owner: Chevron/Texaco | Driller: John White | Hole Diameter: 4 3/4 |
| Owner Address:<br>State/City/Zip: | Driller's Helpers:<br>Dallas Rader | Logged By:<br>Dallas Rader |

| WELL COMPLETION DATA | | | WELL PLUGGING DATA | |
|---|---|---|---|---|
| Diameter: | Screen Slot: | PVC or Steel Schedule: | Casing left in well (ft):<br>N/A | Total Casing Pulled (ft):<br>N/A |
| Screen Depth: | Sand Feet/Bags:<br>/ | Sand Size: | Bentonite Feet/bags:<br>20.0 – 1.0 / 3 bgs. | Cement Feet/Bags:<br>1.0 – 0.0 / soil cuttings |
| Riser Depth: | Bentonite Feet/Bags:<br>/ | Cement Feet/Bags:<br>/ | GPS: N-33-07-00.5<br>W-103-36-57.8 | Total Disposal Drums: |
| Surface Csg. Dia: | Surface Casing Depth: | Cement Feet/Bags:<br>/ | Water Level: DRY | ☒ Clean ☐ Dirty |

| DEPTH (ft.) | DESCRIPTION |
|---|---|
| 0.0 - 2.0 | Brown clayey sand w/caliche & limestone cobbles. |
| 2.0 - 16.0 | Tan caliche. |
| 16.0 – 20.0 | Tan silty sand tightly packed. |

# WHITE DRILLING COMPANY, INC.
## ENVIRONMENTAL/GEOTECHNICAL FIELD LOG



| DEPTH (ft.) | DESCRIPTION |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

| Per Diem (days) | Well Dev./hrs. | Decon/hrs. | Packer Tests/L.F. | NX Core/ft. | Standby Time/hrs. | Rig Time/hrs. |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

**DRILLING METHOD:** ☒ Air Rotary ☐ Mud Rotary ☐ Driven ☐ Air Hammer ☐ Other

**SURFACE COMPETION:**

☐ Alternative Procedure Used ☐ Surface Sleeve Installed

☐ Surface Slab Installed ☐ Pitless Adapter Used

**NOTES:**

**DRILLERS SIGNATURE:** _____

# WHITE DRILLING COMPANY, INC.
## ENVIRONMENTAL/GEOTECHNICAL FIELD LOG



Client: CRA

| | | | |
|---|---|---|---|
| Project: Chevron/Texaco – State G Lease - Site B | | Date Started: 8/24/05 | Well No.: SB-2 |
| Project Address: Lea County, N.M.<br>State/City/Zip: | | Date Completed: 8/24/05 | Total Depth: 20.0 |
| Well Owner: Chevron/Texaco | | Driller: John White | Hole Diameter: 4 3/4 |
| Owner Address:<br>State/City/Zip: | | Driller's Helpers:<br>Dallas Rader | Logged By:<br>Dallas Rader |
| **WELL COMPLETION DATA** | | | **WELL PLUGGING DATA** |
| Diameter: | Screen Slot: | PVC or Steel Schedule: | Casing left in well (ft):<br>N/A |
| Screen Depth: | Sand Feet/Bags:<br>/ | Sand Size: | Bentonite Feet/bags:<br>20.0 – 1.0 / 3 bgs. |
| Riser Depth: | Bentonite Feet/Bags:<br>/ | Cement Feet/Bags:<br>/ | |
| Surface Csg.<br>Dia: | Surface Casing Depth: | Cement Feet/Bags:<br>/ | |

| | |
|---|---|
| Total Casing Pulled (ft):<br>N/A | |
| Cement Feet/Bags:<br>1.0 – 0.0 / soil cuttings | |
| **GPS: N-33-07-00.5<br>W-103-36-57.8** | Total Disposal Drums: |
| Water Level: DRY | ☒ Clean ☐ Dirty |

| DEPTH (ft.) | DESCRIPTION |
|---|---|
| 0.0 - 2.0 | Brown clayey sand w/caliche & limestone cobbles. |
| 2.0 - 15.0 | Tan caliche. |
| 15.0 – 20.0 | Tan silty sand tightly packed. |

# WHITE DRILLING COMPANY, INC.
## ENVIRONMENTAL/GEOTECHNICAL FIELD LOG



| DEPTH (ft.) | DESCRIPTION |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

| Per Diem (days) | Well Dev./hrs. | Decon/hrs. | Packer Tests/L.F. | NX Core/ft. | Standby Time/hrs. | Rig Time/hrs. |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

**DRILLING METHOD:** ☒ Air Rotary ☐ Mud Rotary ☐ Driven ☐ Air Hammer ☐ Other

**SURFACE COMPETION:**

☐ Alternative Procedure Used ☐ Surface Sleeve Installed

☐ Surface Slab Installed ☐ Pitless Adapter Used

NOTES:

DRILLERS SIGNATURE: _____

# APPENDIX E

## New Mexico Oil Conservation Division Form C-138 and Certificate of Waste Status (blank)

District I
1625 N. French Dr , Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St Francis Dr , Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised June 10, 2003

Submit Original
Plus 1 Copy
to Appropriate
District Office

# REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

| | |
|---|---|
| 1. RCRA Exempt: ☐ Non-Exempt: ☐<br>☐Verbal Approval Received: Yes ☐ No ☐ | 4. Generator |
| | 5. Originating Site |
| 2. Management Facility Destination | 6. Transporter |
| 3. Address of Facility Operator | 8. State |
| 7. Location of Material (Street Address or ULSTR) | |

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Estimated Volume _____ cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE _____ TITLE: _____ DATE: _____
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: _____ TELEPHONE NO. _____

E-MAIL ADDRESS _____

*(This space for State Use)*

APPROVED BY: _____ TITLE: _____ DATE: _____

APPROVED BY: _____ TITLE: _____ DATE: _____