

Dirt Work • On-Site Remediation • Soil Testing • Excavation

December 14, 2007

Mr. Larry Johnson New Mexico Oil Conservation Division 1625 French Drive Hobbs, New Mexico 88240

Re: Spill Remediation Workplan, Lovington Deep State,

Unit Letter M (SW/4, SW/4), Section 5, Township 17 South, Range 36 East,

Lea County, New Mexico

1RP #1612

Dear Mr. Johnson:

Attached please find the Spill Remediation Workplan for the Chevron MidContinent L.P., SBU, Lovington Deep State site.

If you have any questions or need additional information, please do not hesitate to call me at (505) 441-7244 or email me at <u>Cindy.Crain@gmail.com</u>.

Sincerely,

Ocotillo Environmental

Cindy K. Crain, P.G.

Environmental Manager

cc: Larry Ridenour, Chevron

| ਰੀ 1RP#1604 & 1612 - Message | ·. | | | | September 1 | | _ & X |
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Dirt Work • On-Site Remediation • Soil Testing • Excavation

December 10, 2007

Mr. Larry Johnson
Environmental Engineer
Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
1625 N. French Drive
Hobbs, New Mexico 88240

Re: Spill Remediation Workplan, Lovington Deep State,

Unit Letter M (SW/4, SW/4), Section 5, Township 17 South, Range 36 East,

Lea County, New Mexico

(Latitude: N 32 deg. 51 min. 47.53 sec. / Longitude: W 103 deg. 23 min. 8.11 sec.)

1RP #1612

Dear Mr. Johnson:

Chevron MidContinent L.P. SBU (Chevron) has retained Ocotillo Environmental, LLC (Ocotillo) to remediate impacts to soil from a leak at a water transfer line located near the Lovington Deep State well. The leak occurred in the southeast quarter (SE/4) of the southwest quarter (SW/4), Section 5, Township 17 South, Range 36 East, Lea County, New Mexico (Site). Approximately 20 barrels of produced water and 2 barrels of oil were released from the transfer line on October 2, 2007, and approximately 14 barrels of fluid was recovered from the site. A C-141 was submitted to the New Mexico Oil Conservation Division (NMOCD) on October 4, 2007, and a Spill Investigation Workplan was submitted on October 4, 2007. Verbal approval was granted for the Spill Investigation Workplan on October 11, 2007. Figure 1 shows the site location.

Based on published literature (1961), well records of the New Mexico State Engineer, and well records of the United States Geological Survey, groundwater occurs at approximately 56 feet bgs in the well located nearest the Site. No domestic water wells are located within 1,000 feet of the site. The NMOCD has established RRALs for benzene, total BTEX and TPH resulting from spills of natural gas liquids ("Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993"). Remediation levels for benzene, total BTEX and TPH were calculated using the following NMOCD criteria:

| Criteria | Result | Ranking Score |
|-----------------------------------|-----------------------|---------------|
| Depth-to-Groundwater | 50 - 99 Feet | 10 |
| Wellhead Protection Area | No | 0 |
| Distance to Surface Water Body | >1000 Horizontal Feet | 0 |
| | | Total: 10 |

The following RRALs have been assigned based on NMOCD criteria:

Benzene 10 mg/kg
Total BTEX 50 mg/kg
TPH 1,000 mg/kg

Initial Investigation

On November 14 and 15, 2007, Ocotillo installed thirteen (13) soil borings (BH-1 through BH-13) at the site, using an air rotary drilling rig, in order to assess the horizontal and vertical limits of the spill. Surficially impacted soil had been previously removed from the surface and disposed at an NMOCD approved disposal facility.

Soil samples from the exploratory borings were collected in five foot intervals from the ground surface to a depth of approximately 32 feet below ground surface (bgs) in borings BH-1, BH-2, and BH-7, to a depth of approximately 27 feet bgs in borings BH-3 and BH-8, to a depth of approximately 22 feet bgs in borings BH-4, BH-5, BH-6, and BH-9, and to a depth of approximately 17 feet bgs in borings BH-10, BH-11, BH-12 and BH-13. All samples were collected using a split-spoon sampling device. The sampling equipment was thoroughly cleaned between soil boring locations with a solution of laboratory-grade detergent and potable water, and rinsed with distilled water. All soil borings were plugged with bentonite. Figure 2 shows the locations of the soil borings.

The soil samples from borings BH-1 through BH-13 were placed in clean glass sample jars, labeled, chilled in an ice chest, and delivered under chain-of-custody control to Environmental Lab of Texas (ELOT), located in Odessa, Texas. A duplicate of each sample was also placed in a clean glass sample jar for headspace analysis. The headspace jars were filled approximately ¾ full, and a layer of aluminum foil was placed over the opening of the jar before replacing the cap. The headspace samples were allowed to reach ambient temperature before a BW Technologies GasAlertMicro 5 photoionization detector (PID) was used to measure the concentration of organic vapors in the headspace of the sample jars. The PID probe was inserted into the headspace of the sample jars (through the aluminum foil) and the concentration of organic vapors was displayed by the instrument in parts per million (ppm). The PID readings are shown on the borings logs included in Appendix A.

All soil samples collected from borings BH-1 through BH-13 were analyzed for chlorides by EPA method 325.3. At a minimum, the uppermost two (2) samples from each boring were analyzed for total petroleum hydrocarbons (TPH) by EPA method SW8015 (extended) for gasoline range organics (GRO) and diesel range organics (DRO). If the PID reading for any particular sample was greater than 100 ppm, the sample was also analyzed for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX). Table 1 presents a summary of the laboratory analysis of soil samples. Laboratory analysis and chain of custody documentation are included in Appendix B.

Referring to Table 1, TPH concentrations in the following samples from borings BH-1, BH-2, BH-5, and BH-9, were reported above the RRAL of 1,000 mg/kg, or above the RRAL of 100 mg/kg if located deeper than six (6) feet bgs:

- BH-1 0-2' 13,350 mg/kg
- BH-1 5-7' 290.7 mg/kg
- BH-1 10-12' 1,129 mg/kg

Mr. Larry Johnson Page 3 December 10, 2007

- BH-2 0-2' 12,406 mg/kg
- BH-5 0-2' 13,870 mg/kg
- BH-5 5-7' 510.3 mg/kg
- BH-9 0-2' 1,240 mg/kg
- BH-9 5-7' 390.1 mg/kg.

Concentrations of BTEX exceeded the RRAL of 50 mg/kg in the following samples:

- BH-1 0-2' 192.544 mg/kg
- BH-2 0-2' 242.5141 mg/kg
- BH-5 0-2' 202.1216 mg/kg.

Chloride concentrations were below the RRAL of 250 mg/kg in all samples from borings BH-4, BH-10, BH-11, BH-12 and BH-13. Chloride concentrations were above the RRAL of 250 mg/kg until a depth of approximately 20-22 feet bgs in boring BH-1, 15-17 feet bgs in borings BH-2 and BH-7, and 10-12 feet bgs in borings BH-3, BH-5, BH-6, BH-8 and BH-9.

Proposed Remediation

Chevron proposes to conduct excavation of the impacted soil in the vicinity of boring BH-1 to a depth of approximately 18-19 feet bgs, in the vicinity of borings BH-2 and BH-7 to a depth of approximately 13-14 feet bgs, and in the vicinity of borings BH-3, BH-5, BH-6, BH-8 and BH-9 to a depth of approximately 8-9 feet bgs, until confirmations samples at all locations report chloride and TPH concentrations below the RRALs of 250 mg/kg and 100 mg/kg, respectively. Excavated soil will be removed to an NMOCD approved disposal facility. Analytical results from final confirmation samples will be reported to the NMOCD prior to backfilling of the excavation.

If you have any questions or need additional information, please call Mr. Larry Ridenour at (505) 396-4414 x102, or myself at (505) 441-7244. We may also be reached by email at Lridenour@chevron.com or <u>Cindy.Crain@gmail.com</u>.

Sincerely,

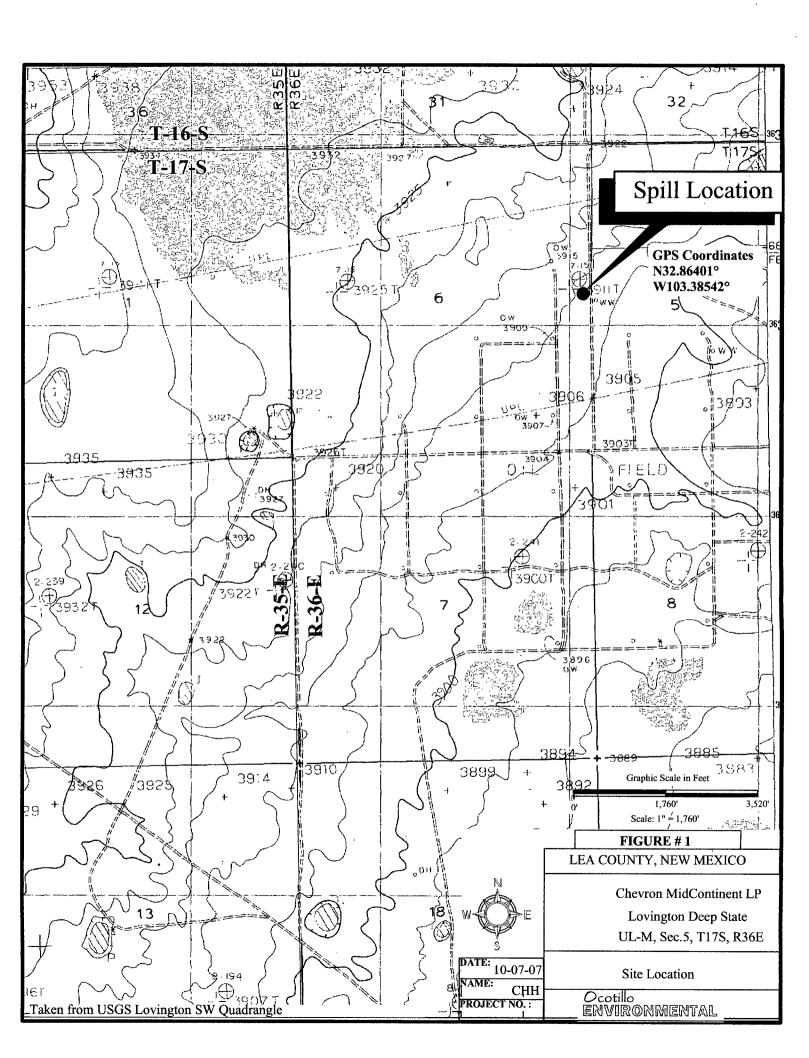
Ocotillo Environmental, LLC

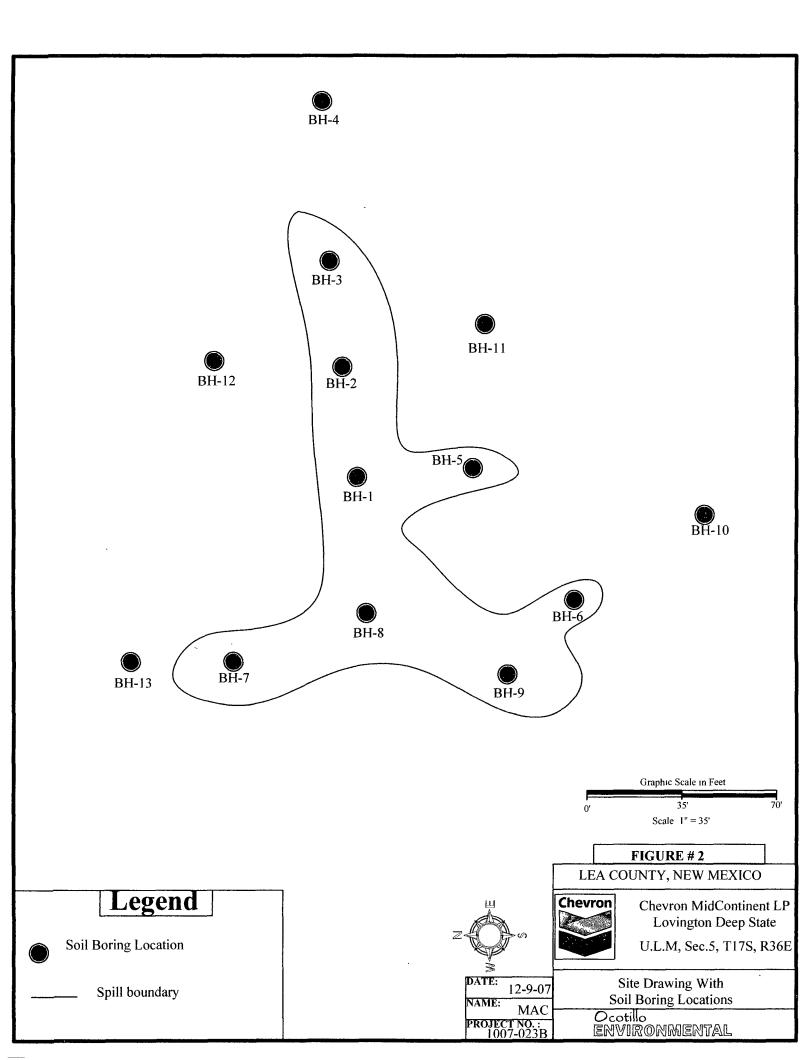
indy K. (rain

Cindy K. Crain, P.G. Environmental Manager

cc: Larry Ridenour, Chevron

FIGURES





TABLE

Table 1: Summary of Laboratory Analysis of Soil Samples Chevron MidContinent Alaska, Lovington Deep State Section 5, Township 17 South, Range 36 East Lea County, New Mexico

Page 1 of 4

| Sample Date | Soil Boring Number | Sample Depth (feet BGS) | TPH (GRO) C6 - C12 mg/kg | TPH (DRO) C12 - C28 mg/kg | TPH (ORO) C28 - C35 mg/kg | Total TPH C6 - C35 mg/kg | Benzene mg/kg | Total BTEX mg/kg | Chloride (mg/kg) |
|----------------|--------------------------|-------------------------|--------------------------------|---------------------------------|---------------------------------|--------------------------------|------------------|---------------------|---------------------|
| | RRAL | | | | - | 100 | 10 | 50 | 250 |
| 11/14/07 | BH-1 | 0-2 | 2,690 | 9,520 | 1,140 | 13,350 | 1.724 | 192.544 | 25,300 |
| | | 5-7 | 51.3 | 201 | 38.4 | 290.7 | | | 6,420 |
| | | 10-12 | 138 | 879 | 112 | 1,129 | | | 1,850 |
| | | 15-17 | | | | | | | 936 |
| | | 20-22 | | | | | | | 128 |
| | | 25-27 | | | | | | | 85.1 |
| | | 30-32 | | | | | | | 63.8 |
| | | | | | | | | | |
| 11/14/07 | BH-2 | 0-2 | 3,530 | 7,950 | 926 | 12,406 | 0.9841 | 242.5141 | 13,400 |
| | | 5-7 | 18.2 | 45.4 | <16.7 | 63.6 | < 0.0011 | 0.0096 | 10,900 |
| | | 10-12 | <15.6 | <15.6 | <15.6 | <46.8 | | | 1,290 |
| | | 15-17 | | | | | | | 85.1 |
| | | 20-22 | | | | | | | 42.5 |
| | | 25-27 | | | | | | | 53.2 |
| | | 30-32 | | | | | | | 42.5 |
| 11/14/07 | BH-3 | 0-2 | <17.2 | 30.5 | <17.2 | 30.5 | | | ± 17,100 |
| 11/11/07 | <u> </u> | 5-7 | <15.9 | <15.9 | <15.9 | <47.7 | | | 6,080 |
| | | 10-12 | | | | | | | 191 |
| | | 15-17 | | | | | | | 117 |
| | | 20-22 | | | | | | | 42.5 |
| · | | 25-27 | | | | | | | 160 |
| | | | | | | | | | <u> </u> |

Page 2 of 4

| ~ | ~ | | | | | | | Page 2 | |
|---------------------------------------|--------|------------|-----------|-----------|-----------|--------------|---------|------------|-------------|
| Sample | Soil | Sample | TPH (GRO) | TPH (DRO) | TPH (ORO) | Total TPH | Benzene | Total BTEX | Chloride |
| Date | Boring | Depth | C6 - C12 | C12 - C28 | C28 - C35 | C6 - C35 | mg/kg | mg/kg | (mg/kg) |
| | Number | (feet BGS) | mg/kg | mg/kg | mg/kg | mg/kg | | | |
| | RRAL | | | | | 100 | 10 | 50 | 250 |
| 11/14/07 | BH-4 | 0-2 | <16 | 37.1 | <16 | 37.1 | | | 45.4 |
| | | 5-7 | <15.2 | 37.8 | <15.2 | 37.8 | | | 64.6 |
| | | 10-12 | | | | | | | 53.2 |
| | | 15-17 | | | | | | | 74.4 |
| | | 20-22 | ~~~ | | | | | | 42.5 |
| 11/14/07 | BH-5 | 0-2 | 2,590 | 10,100 | 1,180 | 13,870 | 0.0716 | 202.1216 | 15,200 |
| | | 5-7 | 34.9 | 409 | 66.4 | 510.3 | | | 1,880 |
| | | 10-12 | | | | | | | 42.5 |
| | | 15-17 | | | | | | | 106 |
| | | 20-22 | | | | | | | 74.4 |
| 11/14/07 | BH-6 | 0-2 | <16.9 | 86.6 | 17.2 | 103.8 | | | 12,600 |
| | | 5-7 | <15.6 | <15.6 | <15.6 | <46.8 | | · | 1,130 |
| | | 10-12 | | | | | | | 42.5 |
| | | 15-17 | | | | | | | 42.5 |
| | | 20-22 | | | | | | | 234 |
| 11/15/07 | BH-7 | 0-2 | <17 | <17 | <17 | <51 | | | ₹.7,850° |
| 11/13/07 | ВП-/ | 5-7 | | | | | | | |
| | | | <15.9 | <15.9 | <15.9 | <47.7 | | | 5,060 |
| · · · · · · · · · · · · · · · · · · · | | 10-12 | | | | | | | 3,400 |
| | | 15-17 | | | *** | | | | 213 |
| | | 20-22 | | | | | | | 42.5 |
| | | 25-27 | | | | | | | 42.5 |
| | | 30-32 | | | | | | | 42.5 |
| | I | | | | | | | | 1 |

Page 3 of 4

| Sample | Soil | Sample | TPH (GRO) | TPH (DRO) | TPH (ORO) | Total TPH | Benzene | Total BTEX | Chloride |
|----------|--------|------------|-----------|-----------|-----------|-----------|----------|------------|----------|
| Date | Boring | Depth | C6 - C12 | C12 - C28 | C28 - C35 | C6 - C35 | mg/kg | mg/kg | (mg/kg) |
| | Number | (feet BGS) | mg/kg | mg/kg | mg/kg | mg/kg | | | (6,6) |
| | RRAL | | 8 | | 3 8 | 100 | 10 | 50 | 250 |
| 11/15/07 | BH-8 | 0-2 | <17.2 | 22.2 | <17.2 | 22.2 | | | 3,770 |
| | | 5-7 | <15.3 | <15.3 | <15.3 | <45.9 | | | 304 |
| | | 10-12 | 444 | | | | | | 85.1 |
| | | 15-17 | | | | | | | 85.1 |
| | | 20-22 | | | | | | | 63.8 |
| | | 25-27 | | | | | | | . 106 |
| - | | | | | | | | | |
| 11/15/07 | BH-9 | 0-2 | 162 | 893 | 185 | 1,240 | < 0.0012 | < 0.0082 | 30,000 |
| | | 5-7 | 73.7 | 285 | 31.4 | 390.1 | < 0.0010 | 0.0291 | 2,010 |
| | | 10-12 | <15.5 | <15.5 | <15.5 | <46.5 | | | 176.0 |
| | | 15-17 | | | | | | | 74.4 |
| | | 20-22 | | | | | | | 74.4 |
| · | | | | | | | | | |
| 11/15/07 | BH-10 | 0-2 | <15.9 | <15.9 | <15.9 | <47.7 | | | 45 |
| | | 5-7 | <15.5 | <15.5 | <15.5 | <46.5 | | | 44 |
| | | 10-12 | | | | | | | 42.5 |
| | | 15-17 | | | | | | | 31.9 |
| · | | | | | | | | | |
| 11/15/07 | BH-11 | 0-2 | <16.8 | <16.8 | <16.8 | <50.4 | | | 48 |
| | | 5-7 | <15.5 | <15.5 | <15.5 | <46.5 | | | 33 |
| | | 10-12 | | | | | | | 42.5 |
| | | 15-17 | a. a. a. | | | | | | 31.9 |
| | | | | | | | | | |
| 11/15/07 | BH-12 | 0-2 | <15.9 | 48.9 | <15.9 | 48.9 | | | 34 |
| | | 5-7 | <16.1 | 32.7 | <16.1 | 32.7 | | | 46 |
| · | | 10-12 | | | | | | | 63.8 |
| | | 15-17 | | | | | | | 42.5 |
| <u> </u> | | | | | | | | | |

Page 4 of 4

| Sample Date | Soil Boring Number | Sample Depth (feet BGS) | TPH (GRO) C6 - C12 mg/kg | TPH (DRO) C12 - C28 mg/kg | TPH (ORO) C28 - C35 mg/kg | Total TPH C6 - C35 mg/kg | Benzene mg/kg | Total BTEX mg/kg | Chloride (mg/kg) |
|----------------|--------------------------|-------------------------------|--------------------------------|---------------------------------|---------------------------------|--------------------------------|------------------|---------------------|---------------------|
| | RRAL | | | | | 100 | 10 | 50 | 250 |
| 11/15/07 | BH-13 | 0-2 | <15.5 | 38.5 | <15.5 | 38.5 | | | 33.1 |
| | | 5-7 | <15.2 | <15.2 | <15.2 | <45.6 | | | 86.2 |
| | | 10-12 | | | | | | | 42.5 |
| | | 15-17 | | | | | | | 53.2 |

Notes:

1. BGS: Depth in feet below ground surface

2. mg/kg: Milligrams per kilogram
 3. GRO: Gasoline Range Organics
 4. DRO: Diesel Range Organics

5. ORO: Oil Range Organics

APPENDIX A SOIL BORING LOGS

Project: Lovington Deep State

Project No.: 1007-023B

Location: Sec 5, T17S, R36E

Log: BH-1

Page: 1 of 1

Geologist: C. Crain

| th | logi | Description | Sample Number | ıple e | Sample Recovery | Field Chloride ppm | Analytical Data |
|---------------|--|--|------------------|----------------|--------------------|--------------------------|--|
| Depth | Symbol | | Sam | Sample Type | Sam Rec | 500 1500 | |
| 0 | | Ground Surface | | | | >25.00 | |
|) - | | Silty Clayey Sand Dark brown, silty clayey quartz | 1 | SS | 2 | 72300 | 0-2' bgs Total TPH= 242.5141 mg/kg |
| - - - | 77 | sand, fine grained,poorly sorted, damp. | | | | | Chloride 13400 mg/kg |
| -5 - - | 7/ 7/ 7/ 7/ 1/ 2/ 2/ | Caliche Pinkish white quartz sand, non- indurated, dry. | 2 | SS | 2 | >2500 | 5-7' bgs Total TPH= .0096 mg/kg Chloride 10900 mg/kg |
| -10 | / / / / / / | | 3 | SS | 2 | >2500 | 10-12' bgs |
| - - - | | | | | | | Chloride 1290 mg/kg |
| -15 - | 77, 77, 77, | | 4 | SS | 2 | 1500 | 15-17' bgs Chloride 85.1 mg/kg |
| -20 | 777 777 777 | | 5 | SS | 2 | 600 g | 20-22' bgs Chloride 42.5 mg/kg |
| - - -25 | | Sand Light tan quartz sand, very fine grained, moderately well sorted, | | | | 400 | 25-27' bgs |
| - - - | | loose, dry. | 6 | SS | 2 | 7-0 | Chloride 53.2 mg/kg |
| - -30 | | | 7 | SS | 2 | 400 | 30-32' bgs Chloride 42.5 mg/kg |
| - | | TD at 32' bgs | | 33 | | | Chionae 42.5 mg/kg |
| - -35 - | | | | | | | |
| - - -40 | | | | | | | |

Ocotillo Environmental, LLC

2125 French Drive Hobbs, NM 88240 (505) 393-6371

Elevation: NA

Checked by: CKC

Drilled by: Scarborough Drilling

Drill Method: Air Rotary

Drill Date: 11/14/07

Project: Lovington Deep State

Project No.: 1007-023B

Drill Method: Air Rotary

Location: Sec 5, T17S, R36E

Log: BH-2

Page: 1 of 1

Geologist: C. Crain

| - 0 - 2 - 5 - 7 - 7 - 7 - 10 - 7 | | Ground Surface Silty Clayey Sand Dark brown, silty clayey quartz sand, fine grained, poorly sorted, damp. Caliche Pinkish white quartz sand, non-indurated, dry. | 1 2 | SS | 2 | >2500- • | 0-2' bgs Total TPH= 12406 mg/kg Chloride 13400 mg/kg |
|---|---------------------------------|--|-----|----|-----|-------------|--|
| | | Dark brown, silty clayey quartz sand, fine grained, poorly sorted, damp. Caliche Pinkish white quartz sand, non- | | | 2 | | Total TPH= 12406 mg/kg |
| | | damp. Caliche Pinkish white quartz sand, non- | 2 | SS | | | Chloride 13400 ma/ka |
| | | Pinkish white quartz sand, non- | 2 | SS | | 0500 | |
| 10 五 | | | | | 2 | >2500 | 5-7' bgs Total TPH= 63.6 mg/kg Chloride 10900 mg/kg |
| | | | 3 | SS | 2 | >2500 | 10-12' bgs Total TPH = <46.8 mg/kg Chloride 1290 mg/kg |
| - 15 / / / / / / / / / / / / / / / / / / / | <i>',', ',', ',', ',', ',',</i> | | 4 | SS | 2 | 1500 | 15-17' bgs Chloride 85.1 mg/kg |
| -20 / | | | 5 | SS | 2 | 600 ø | 20-22' bgs Chloride 42.5 mg/kg |
| - - -25 | | Sand Light tan quartz sand, very fine grained, moderately well sorted, loose, dry. | 6 | SS | 2 (| 0 | 25-27' bgs Chloride 53.2 mg/kg |
| - - -30 | | | 7 | SS | 2 (| 0 | 30-32' bgs Chloride 42.5 mg/kg |
| | | TD at 32' bgs | , | 33 | | | Chilohae 42.5 mg/kg |
| -35 - - - - -40 | | | | | | | |

Ocotillo Environmental, LLC

2125 French Drive Hobbs, NM 88240 (505) 393-6371

Elevation: NA

Drill Date: 11/14/07 Checked by: CKC

Hole Size: 4" Drilled by: Scarborough Drilling

Project: Lovington Deep State

Project No.: 1007-023B

Drill Method: Air Rotary

Location: Sec 5, T17S, R36E

Log: BH-3

Page: 1 of 1

Geologist: C. Crain

| Depth | Symbol | Description | Sample Number | Sample Type | Sample Recovery | Field Chloride ppm 500 1500 | Analytical Data |
|----------|------------------|---|------------------|----------------|--------------------|--------------------------------------|---|
| 0 | | Ground Surface | | | , | >2500 | |
| - | احتبرا | Silty Clayey Sand | 1 | SS | 2 | | 0-2' bgs |
| | | Dark brown, silty clayey quartz sand, fine grained,poorly sorted, | | | | | Total TPH= 30.5 mg/kg Chloride 17100 mg/kg |
| - | 77 | damp. | | | | | |
| -5 | 7 7 7 | Caliche | 2 | SS | 2 | >2500 | 5-7' bgs Total TPH= <47.7 |
| - | 77, | Pinkish white quartz sand, non indurated, damp. | | 33 | | | Chloride 6080 mg/kg |
| | | muurateu, uamp. | | | | | |
| -10 | 7 | | , | | | 400 | 10-12' bgs |
| _ | 77 | | 3 | SS | 2 | % | Chloride 191 mg/kg |
| - | /// | | | | | | |
| - -15 | /// | | | | | 1200 | 15-17' bgs |
| - 13 | /// | | 4 | SS | 2 | 1200 s | Chloride 117 mg/kg |
| - | /// | | | | | | |
| - | 7 | | | | | / | |
| -20 | 77 | | | 00 | | 0 | 20-22' bgs |
| | 77 | | 5 | SS | 2 (| | Chloride 42.5 mg/kg |
| - | /// | | | | | | |
| -25 | 77 | | | | | 0 | 25-27' bgs |
| - | 77 | | 6 | SS | 2 ' | | Chloride 160 mg/kg |
| | | | | | | | ^ |
| - | | | | | | | ` |
| -30 - | | | | | | | |
| } | 77 | TD@32' | | | | | |
| - 1 | | 15602 | | | | | |
| -35 | | | | | | | |
| - | | | | | | | |
| | | | | | | | |
| 40 | | | | | | | |
| لـــــا | | | | | | L | |

Ocotillo Environmental, LLC

2125 French Drive Hobbs, NM 88240 (505) 393-6371

Elevation: NA

Drill Date: 11/14/07 Checked by: CKC

Hole Size: 4" Drilled by: Scarborough Drilling

Project: Lovington Deep State

Project No.: 1007-023B

Location: Sec 5, T17S, R36E

Log: BH-4

Page: 1 of 1

Geologist: C. Crain

| Description Ground Surface Sitty Clayey Sand Dark brown, silty clayey quartz sand, fine grained, poorly sorted, dry. Caliche pinkish white quartz sand caliche, non indurated, dry. 1 SS 2 0 0 0 0 0 1500 3 SS 2 0 0 0 0 1500 3 SS 2 0 0 0 0 1500 TD@22' Analytical Data Analytical Data Pickle Chloride brown, silty clayey quartz sand, fine grained, poorly sorted, dry. 2 SS 2 0 0 0 0 1500 Total TPH= 37.1 mg/kg Chloride 64.6 mg/kg 10-12' bgs Chloride 64.6 mg/kg 10-12' bgs Chloride 63.2 mg/kg 15-17' bgs Chloride 74.4 mg/kg 20-22' bgs Chloride 74.4 mg/kg TD@22' | | | | | | | | |
|---|------------------------|----------------|--|------------------|----------------|--------------------|----------|-----------------------------------|
| Silty Clayey Sand Dark brown, silty clayey quartz sand, fine grained, poorly sorted, dry. Caliche Pinkish white quartz sand caliche, non indurated, dry. 3 SS 2 Total TPH= 37.1 mg/kg Chloride 45.4 mg/kg 5-7' bgs Total TPH= 37.8 mg/kg Chloride 64.6 mg/kg 10-12' bgs Total TPH= 37.1 mg/kg Chloride 64.6 mg/kg 10-12' bgs Chloride 64.6 mg/kg 10-12' bgs Chloride 64.6 mg/kg 15-17' bgs Chloride 74.4 mg/kg TD@22' TD@22' TD@22' | Depth | Symbol | Description | Sample Number | Sample Type | Sample Recovery | ppm | Analytical Data |
| Sity Clayey Sand Dark brown, sity clayey quartz sand, fine grained, poorly sorted, dry. Caliche Pinkish white quartz sand caliche, non indurated, dry. 1 SS 2 o Chloride 45.4 mg/kg 5-7' bgs Total TPH= 37.1 mg/kg Chloride 45.4 mg/kg 10-12' bgs Total TPH= 37.1 mg/kg Chloride 64.6 mg/kg 10-12' bgs Chloride 64.6 mg/kg 10-12' bgs Chloride 64.6 mg/kg 10-12' bgs Chloride 64.6 mg/kg 15-17' bgs Chloride 53.2 mg/kg 15-17' bgs Chloride 74.4 mg/kg 20-22' bgs Chloride 42.5 mg/kg | | | Ground Surface | | | | 0 | |
| Caliche Pinkish white quartz sand caliche, non indurated, dry. | - | | Dark brown, silty clayey quartz | 1 | SS | 2 (| | Total TPH= 37.1 mg/kg |
| Pinkish white quartz sand caliche, non indurated, dry. 2 SS 2 o | F | ŹŻ | | | | | | - " |
| 3 SS 2 0 Chloride 53.2 mg/kg 4 SS 2 0 Chloride 74.4 mg/kg 20-22' bgs Chloride 42.5 mg/kg TD@22' TD. 235 | -5 - - | | Pinkish white quartz sand caliche, | 2 | SS | 2 9 | 0 | Total TPH= 37.8 mg/kg |
| Chloride 53.2 mg/kg 15-17' bgs Chloride 74.4 mg/kg 20-22' bgs Chloride 42.5 mg/kg TD@22' TD@22' | 10 | | | | | | o | 10-12' bgs |
| 4 SS 2 o Chloride 74.4 mg/kg 20-22' bgs Chloride 42.5 mg/kg TD@22' -35 | - | | | 3 | SS | 2 ' |) | Chloride 53.2 mg/kg |
| 4 SS 2 o Chloride 74.4 mg/kg 20-22' bgs Chloride 42.5 mg/kg TD@22' -35 | - | /-/-, /-/- | | | | | | |
| 20-22' bgs Chloride 42.5 mg/kg TD@22' -35 | -15 | / / / / / / | | 4 | SS | 2 (| 0 | 15-17' bgs Chloride 74.4 ma/ka |
| 5 SS 2 ¢ TD@22' -25 -30 -35 | - | / / / / / / | | | | | | 3 3 |
| 5 SS 2 ¢ TD@22' -25 -30 -35 | -20 | //// /// | | | | | 0 | 20-22' has |
| -25 -30 -35 -35 | | / / / / / / | | 5 | SS | 2 (| | Chloride 42.5 mg/kg |
| -30 | - | , | TD@22' | | | | | |
| -35 | -25 | | | | | | | |
| -35 | - | | | | | | | |
| -35 | - | | | | | | | |
| | ⊢30 ⊢ | | | | | | | • |
| | - | | | | | | | |
| | - -35 | | | | | | | |
| -40 | - | | | | | | | |
| -40 | - | | , , , , , , , , , , , , , , , , , , , | | | | | |
| | -40 | | ************************************** | | | | | |

Ocotillo Environmental, LLC

2125 French Drive Hobbs, NM 88240 (505) 393-6371

Elevation: NA

Checked by: CKC

Drilled by: Scarborough Drilling

Drill Date: 11/14/07

Drill Method: Air Rotary

Project: Lovington Deep State

Project No.: 1007-023B

Drill Method: Air Rotary

Location: Sec 5, T17S, R36E

Log: BH-5

Page: 1 of 1

Geologist: C. Crain

| Depth | Symbol | Description | Sample Number | Sample Type | Sample Recovery | Field Chloride ppm 500 1500 | Analytical Data |
|---------------|--------|--|------------------|----------------|--------------------|--------------------------------------|---|
| 0 | | Ground Surface | | | | >2500 | |
| - - - | 77 | Silty Clayey Sand Dark brown, silty clayey quartz sand, fine grained,poorly sorted, dry. | 1 | SS | 2 | | 0-2' bgs Total TPH= 13870 mg/kg Chloride 15200mg/kg |
| -5 - - | | Caliche Pinkish white quartz sand, non indurated, dry. | 2 | SS | 2 | 2500 | 5-7' bgs Total TPH= 510.3 mg/kg Chloride 1880 mg/kg |
| -10 - | | | 3 | SS | 2 ' | 0 | 10-12' bgs Chloride 42.5 mg/kg |
| - -15 - | | | 4 | SS | 2 (| 0 | 15-17' bgs Chloride 106 mg/kg |
| -20 - | | | 5 | SS | 2 ' | 0 | 20-22' bgs Chloride 74.4 mg/kg |
| - -25 | | TD@22' | : | | | | |
| - - -30 | | | | | | | |
| - -35 | | | | | | | |
| - -40 | | | | | | | |

Ocotillo Environmental, LLC

2125 French Drive Hobbs, NM 88240 (505) 393-6371

Elevation: NA

Drill Date: 11/14/07 Checked by: CKC

Hole Size: 4" Drilled by: Scarborough Drilling

Project: Lovington Deep State

Project No.: 1007-023B

Location: Sec 5, T17S, R36E

Log: BH-6

Page: 1 of 1

Geologist: C. Crain

| Depth | Symbol | Description | Sample Number | Sample Type | Sample Recovery | Field Chloride ppm 500 1500 | Analytical Data |
|---------------|---------------|--|------------------|----------------|--------------------|--------------------------------------|---|
| 0 | | Ground Surface | | | | | |
| - | | Silty Clayey Sand Dark brown, silty clayey quartz sand, fine grained, poorly sorted, | 1 | SS | 2 | | 0-2' bgs Total TPH= 103.8 mg/kg Chloride 12,600 mg/kg |
| - -5 | # | dry. | | | | 2500 | 5-7' bgs |
| - | | Caliche Pinkish white quartz sand, non indurated, dry. | 2 | SS | 2 | 2300 | Total TPH= <46.8 mg/kg Chloride 1,130 mg/kg |
| -10 - | | | 3 | SS | 2 ' | 0 | 10-12' bgs Chloride 42.5 mg/kg |
| - 15 | | | 4 | SS | 2 (| 0 | 15-17' bgs Chloride 42.5 mg/kg |
| - - -20 | | | | | | 0 | 20-22' bgs |
| | /-/-, /-/- | | 5 | SS | 2 9 | | Chloride 234 mg/kg |
| - -25 - | | TD@22' | | | | | |
| - -30 - | | | | | | | |
| -35 - | | | | | | | |
| - -40 | | | | | | | |

Ocotillo Environmental, LLC

2125 French Drive Hobbs, NM 88240 (505) 393-6371

Elevation: NA

Checked by: CKC

Drilled by: Scarborough Drilling

Drill Date: 11/14/07

Drill Method: Air Rotary

Project: Lovington Deep State

Project No.: 1007-023B

Location: Sec 5, T17S, R36E

Log: BH-7

Page: 1 of 1

Geologist: C. Crain

| Depth | Symbol | Description | Sample Number | Sample Type | Sample Recovery | Field Chloride ppm 500 1500 | Analytical Data |
|--------------------|--------|---|------------------|----------------|--------------------|--------------------------------------|---|
| 0 | | Ground Surface | | , | | —⊤—>25 <u>.</u> 00 | |
| - | | Silty Clayey Sand Dark brown, silty clayey quartz sand, poorly sorted, damp. | 1 | SS | 2 | | 0-2' bgs Total TPH= <51 mg/kg Chloride 7850 mg/kg |
| -5 - | | Caliche Pinkish white quartz sand, non indurated, dry. | 2 | SS | 2 | >2500 | 5-7' bgs Total TPH= <47.7 mg/kg Chloride 5060 mg/kg |
| -10 - | | | 3 | SS | 2 | 2000 | 10-12' bgs Chloride 3400 mg/kg |
| - -15 - - | | | 4 | SS | 2 | 1800 | 15-17' bgs Chloride 213 mg/kg |
| - -20 | | | 5 | SS | 2 | >2500 | 20-22' bgs Chloride 42.5 mg/kg |
| -25 - | | Silty Sand Light brown silty quartz sand, moderately well sorted, moderately loose, dry. | 6 | SS | • | 0 | 25-27' bgs Chloride 42.5 mg/kg |
| -30 | | | 7 | SS | | 300 300 | 30-32'bgs |
| - -35 | 1+1.2 | TD@32' | - | | | | Chloridie 42.5 mg/kg |
| - -40 | | | | | | | |

Ocotillo Environmental, LLC

2125 French Drive Hobbs, NM 88240 (505) 393-6371

Elevation: NA

Checked by: CKC

Drilled by: Scarborough Drilling

Drill Date: 11/15/07

Drill Method: Air Rotary

Project: Lovington Deep State

Project No.: 1007-023B

Location: Sec 5, T17S, R36E

Log: BH-8

Page: 1 of 1

Geologist: C. Crain

| Depth | Symbol | Description | Sample Number | Sample Type | Sample Recovery | Field Chloride ppm 500 1500 | Analytical Data |
|---------------|---------------------------------------|---|------------------|----------------|--------------------|---|--|
| 0- | | Ground Surface | | | | > 2500 | |
| - | | Silty Clayey Sand Dark brown, silty clayey quartz | 1 | SS | 2 | 7 | 0-2' bgs Total TPH= 22.2 mg/kg |
| Ė | = | sand, fine grained, poorly sorted, \ dry. | | | | | Chloride 3770 mg/kg |
| -5 - - | | Caliche Pinkish white quartz sand, non indurated, dry. | 2 | SS | 2 | 400 | 5-7' bgs Total TPH= <45.9 mg/kg Chloride 304 mg/kg |
| - -10 - | , , , , , , , , , , , , , , , , , , , | | 3 | SS | 2 4 | 0 | 10-12' bgs Chloride 85.1 mg/kg |
| - -15 - | | | 4 | SS | 2 | 250 \$ | 15-17' bgs Chloride 85.1 mg/kg |
| -20 | 77, 77, 77, | | 5 | SS | 2 | 100 | 20-22' bgs Chlorides 63.8 mg/kg |
| - -25 | | Silty Sand Light tan silty quartz sand, fine grained moderately well sorted, moderately loose, dry. | 6 | SS | | 500 | 25-27' bgs Chlorides 106 mg/kg |
| -30 | | TD@27' | | | | | |
| - -35 - | | | | | | | |
| - -40 | | | | | | Total Control of the | |

Ocotillo Environmental, LLC

2125 French Drive Hobbs, NM 88240 (505) 393-6371

Elevation: NA

Checked by: CKC

. . .

Hole Size: 4"

Drill Method: Air Rotary

Drill Date: 11/15/07

Drilled by: Scarborough Drilling

Project: Lovington Deep State

Project No.: 1007-023B

Location: Sec 5, T17S, R36E

Log: BH-9

Page: 1 of 1

Geologist: C. Crain

| Depth | Symbol | Description | Sample Number | Sample Type | Sample Recovery | Field Chloride ppm 500 1500 | Analytical Data |
|--------------------|--------|---|------------------|----------------|--------------------|--------------------------------------|--|
| 0 | | Ground Surface | | | | 2500 | |
| - - - - | | Silty Clayey Sand Dark brown, silty clayey quartz sand, fine grained, poorly sorted, dry. | 1 | SS | 2 | | 0-2' bgs Total TPH= 1,240 mg/kg Chloride: 30,000 mg/kg |
| -5 - | | Caliche Pinkish white quartz sand, non indurated, dry. | 2 | SS | 2 | 2200 | 5-7' bgs Total TPH= 390.1 mg/kg Chloride: 2.010 mg/kg |
| -10 - | | | 3 | SS | 2 ' | 0 | 10-12' bgs Chloride: 176 mg/kg |
| - 15 - | | | 4 | SS | 2 | 750 | 15-17' bgs Chloride: 74.4 mg/kg |
| - - -20 | | | 5 | SS | 2 4 | 0 | 20-22' bgs Chloride: 74.4 mg/kg |
| - - -25 - | | TD@22' | | | | | |
| - - -30 - | | | | | | | |
| - -35 - | | | | | | | |
| - -40 | | | | | | | |

Ocotillo Environmental, LLC

2125 French Drive Hobbs, NM 88240 (505) 393-6371

Elevation: NA

Checked by: CKC

Drilled by: Scarborough Drilling

Drill Date: 11/15/07

Drill Method: Air Rotary

Project: Lovington Deep State

Project No.: 1007-023B

Location: Sec 5, T17S, R36E

Log: BH-10

Page: 1 of 1

Geologist: C. Crain

| Depth | Symbol | Description | Sample Number | Sample Type | Sample Recovery | Field Chloride ppm 500 1500 | Analytical Data |
|--------------------|--------|---|------------------|----------------|--------------------|--------------------------------------|---|
| <u></u> | | Ground Surface | | | | n | |
| - - - | 77, | Silty Clayey Sand Dark brown, silty clayey quartz sand, fine grained, poorly sorted, dry. | 1 | SS | 2 4 | | 0-2' bgs Total TPH= <47.7 mg/kg Chloride 45 mg/kg |
| -5 - - - | | Caliche Pinkish white quartz sand, non indurated, dry. | 2 | SS | 2 4 | 0 | 5-7' bgs Total TPH= <46.5 mg/kg Chloride 44 mg/kg |
| -10 - | | | 3 | SS | 2 4 | 0 | 10-12' bgs Chloride 42.5 mg/kg |
| _ _15 | | | 4 | SS | 2 (| 0 | 15-17' bgs Chloride 31.9 mg/kg |
| -20 | | TD@17' | | | | | |
| - -25 - - | | | | | | | |
| 30 | | | | | | | |
| - -35 - | | | | | | | |
| - -40 | | | | | | | |

Ocotillo Environmental, LLC

2125 French Drive Hobbs, NM 88240 (505) 393-6371

Elevation: NA

Drill Date: 11/15/07

Drill Method: Air Rotary

Checked by: CKC

Hole Size: 4"

Drilled by: Scarborough Drilling

Project: Lovington Deep State

Project No.: 1007-023B

Drill Method: Air Rotary

Location: Sec 5, T17S, R36E

Log: BH-11

Page: 1 of 1

Geologist: C. Crain

| Depth | Symbol | Description | Sample Number | Sample Type | Sample Recovery | Field Chloride ppm 500 1500 | Analytical Data |
|----------|--------|--|------------------|----------------|--------------------|--------------------------------------|---|
| 0 | | Ground Surface | | | | 0 | |
| | | Silty Clayey Sand Dark brown, silty clayey quartz sand,poorly sorted, dry. | 1 | SS | 2 (| 3 | 0-2' bgs Total TPH= <50.4 mg/kg Chloride 48 mg/kg |
| -5 - | | Caliche Pinkish white quartz sand, non indurated, dry. | 2 | SS | 2 9 | 0 | 5-7' bgs Total TPH= <46.5 mg/kg Chloride 33 mg/kg |
| -10 | | | 3 | SS | 2 4 | 0 | 10-12' bgs Chloride 42.5 mg/kg |
| - -15 | | | 4 | SS | 2 ' | 0 | 15-17' bgs Chloride 31.9 mg/kg |
| -20 | | TD@17' | | | | | |
| -25 - | | | | | | | |
| -30 | | | | | | | |
| -35 - | | | *** | | | | |
| - -40 | | | | | | | |

Ocotillo Environmental, LLC

2125 French Drive Hobbs, NM 88240 (505) 393-6371

Elevation: NA

Drill Date: 11/15/07 Checked by: CKC

Hole Size: 4" Drilled by: Scarborough Drilling

Project: Lovington Deep State

Project No.: 1007-023B

Location: Sec 5, T17S, R36E

Log: BH-12

Page: 1 of 1

Geologist: C. Crain

| Depth | Symbol | Description | Sample Number | Sample Type | Sample Recovery | Field Chloride ppm 500 1500 | Analytical Data |
|--------------------|--------|--|------------------|----------------|--------------------|--------------------------------------|--|
| 0 | | Ground Surface | | | | 0 | |
| | | Silty Clayey Sand Dark brown, silty clayey quartz sand,poorly sorted, dry. | 1 | SS | 2 9 | | 0-2' bgs Total TPH= 48.9 mg/kg Chloride 34 mg/kg |
| - -5 - | | Caliche Pinkish white quartz sand, non indurated, dry. | 2 | SS | 2 (| 0 | 5-7' bgs Total TPH= 32.7 mg/kg Chloride 46 mg/kg |
| -10 - - - | | | 3 | SS | 2 (| 0 | 10-12' bgs Chloride 63.8 mg/kg |
| -15 - | | TD@17' | 4 | SS | 2 4 | 0 | 15-17' bgs Chloride 42.5 mg/kg |
| -20 | | 15@17 | | | | | |
| - -25 - | | | | | | | |
| - -30 | | | | | | | |
| - -35 - | | | | | | | |
| -40 | | | | | | | |

Ocotillo Environmental, LLC

2125 French Drive Hobbs, NM 88240 (505) 393-6371

Elevation: NA

Checked by: CKC

Drilled by: Scarborough Drilling

Drill Date: 11/15/07

Drill Method: Air Rotary

Project: Lovington Deep State

Project No.: 1007-023B

Location: Sec 5, T17S, R36E

Log: BH-13

Page: 1 of 1

Geologist: C. Crain

| Depth | Symbol | Description | Sample Number | Sample Type | Sample Recovery | Field Chloride ppm 500 1500 | Analytical Data |
|------------|---------------|---|------------------|----------------|--------------------|--------------------------------------|--|
| 0 | <u> </u> | Ground Surface | | | | 0 | |
| - | | Silty Clayey Sand Dark brown, silty clayey quartz | 1 | SS | 2 4 | | 0-2' bgs |
| | | sand, fine grained, poorly sorted, | | | | | Total TPH= 38.5 mg/kg Chloride 33.1 mg/kg |
| - <u>-</u> | 7 | dry. | | | | | |
| -5 | 7/1 | Caliche | 2 | SS | 2 4 | 0 | 5-7' bgs Total TPH= <45.6 mg/kg |
| - | // | Pinkish white quartz sand, non indurated, dry. | | | _ | | Chloride 86.2 mg/kg |
| ļ. | 知 | madatou, a.y. | | | | An about the second | |
| -10 | # | | | | | 0 | 10-12' bgs |
| ļ | <u> </u> | | 3 | SS | 2 9 | | Chloride 42.5 mg/kg |
| - | 77 | | | | | | |
| -15 | 7 | | | | | o | 15-17' bgs |
| | = | | 4 | SS | 2 9 | | Chloride 53.2 mg/kg |
| F | | TD@17' | | | | | |
| -20 | | | | | | | |
| - 20 | | | | | | | |
| | | | | ļ | | | |
| - | | | | | | | |
| -25 | | | | | | | |
| - | | | | | | | |
| | | | | | | | |
| -30 | | | | | | | |
| | | | | | | | |
| - | | | | | | | |
| -35 | | | | | | | |
| - | | | | | | | |
| F | | | | | | | |
| - -40 | | | | | | | |
| 40 | L | | <u> </u> | L | | | |

Ocotillo Environmental, LLC

2125 French Drive Hobbs, NM 88240 (505) 393-6371

Elevation: NA

Checked by: CKC

Drilled by: Scarborough Drilling

Drill Method: Air Rotary

Drill Date: 11/15/07

APPENDIX B LABORATORY DATA AND CHAIN OF CUSTODY DOCUMENTATION

Analytical Report 293282

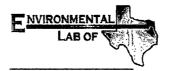
for

Ocotillo Environmental, LLC

Project Manager: Cindy Crain

Chevron Lovington Deep State 1007-023B

30-NOV-07



12600 West I-20 East Odessa, Texas 79765

A Xenco Laboratories Company

Texas certification numbers: Houston, TX T104704215

Florida certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America Midland - Corpus Christi - Atlanta



30-NOV-07

Project Manager: Cindy Crain Ocotillo Environmental, LLC P.O. Box 1816

P.O. Box 1816 Hobbs, NM 88241

Reference: XENCO Report No: 293282

Chevron Lovington Deep State

Project Address: Sec. 5, T17S, R36E, Lea Co., NM

Cindy Crain:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 293282. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 293282 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America



Sample Cross Reference 293282

Ocotillo Environmental, LLC, Hobbs, NM

Chevron Lovington Deep State

| Sample Id | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|---------------|--------|-----------------------|--------------|---------------|
| BH-1 (0-2') | S | Nov-14-07 09:30 | 0 - 2 ft | 293282-001 |
| BH-1 (5-7') | S | Nov-14-07 09:42 | 5 - 7 ft | 293282-002 |
| BH-1 (10-12') | S | Nov-14-07 09:50 | 10 - 12 ft | 293282-003 |
| BH-1 (15-17') | S | Nov-14-07 09:58 | 15 - 17 ft | 293282-004 |
| BH-1 (20-22) | S | Nov-14-07 10:05 | 20 - 22 ft | 293282-005 |
| BH-1 (25-27') | S | Nov-14-07 10:13 | 25 - 27 ft | 293282-006 |
| BH-1 (30-32') | S | Nov-14-07 10:20 | 30 - 32 ft | 293282-007 |
| BH-2 (0-2') | S | Nov-14-07 10:38 | 0 - 2 ft | 293282-008 |
| BH-2 (5-7') | S | Nov-14-07 10:42 | 5 - 7 ft | 293282-009 |
| BH-2 (10-12') | S | Nov-14-07 10:50 | 10 - 12 ft | 293282-010 |
| BH-2 (15-17') | S | Nov-14-07 10:58 | 15 - 17 ft | 293282-011 |
| BH-2 (20-22') | S | Nov-14-07 11:02 | 20 - 22 ft | 293282-012 |
| BH-2 (25-27') | S | Nov-14-07 12:59 | 25 - 27 ft | 293282-013 |
| BH-2 (30-32') | S | Nov-14-07 13:04 | 30 - 32 ft | 293282-014 |
| BH-3 (0-2') | S | Nov-14-07 12:16 | 0 - 2 ft | 293282-015 |
| BH-3 (5-7') | S | Nov-14-07 12:21 | 5 - 7 ft | 293282-016 |
| BH-3 (10-12') | S | Nov-14-07 12:23 | 10 - 12 ft | 293282-017 |
| BH-3 (15-17') | S | Nov-14-07 12:31 | 15 - 17 ft | 293282-018 |
| BH-3 (20-22') | S | Nov-14-07 12:36 | 20 - 22 ft | 293282-019 |
| BH-3 (25-27') | S | Nov-14-07 12:46 | 25 - 27 ft | 293282-020 |
| BH-4 (0-2') | S | Nov-14-07 13:10 | 0 - 2 ft | 293282-021 |
| BH-4 (5-7') | S | Nov-14-07 13:21 | 5 - 7 ft | 293282-022 |
| BH-4 (10-12') | S | Nov-14-07 13:23 | 10 - 12 ft | 293282-023 |
| BH-4 (15-17') | S | Nov-14-07 13:25 | 15 - 17 ft | 293282-024 |
| BH-4 (20-22') | S | Nov-14-07 13:31 | 20 - 22 ft | 293282-025 |
| BH-5 (0-2') | S | Nov-14-07 13:42 | 0 - 2 ft | 293282-026 |
| BH-5 (5-7') | S | Nov-14-07 13:49 | 5 - 7 ft | 293282-027 |
| BH-5 (10-12') | S | Nov-14-07 14:01 | 10 - 12 ft | 293282-028 |
| BH-5 (15-17') | S | Nov-14-07 14:07 | 15 - 17 ft | 293282-029 |
| BH-5 (20-22') | S | Nov-14-07 14:11 | 20 - 22 ft | 293282-030 |
| BH-6 (0-2') | S | Nov-14-07 14:28 | 0 - 2 ft | 293282-031 |
| BH-6 (5-7') | S | Nov-14-07 14:31 | 5 - 7 ft | 293282-032 |
| BH-6 (10-12') | S | Nov-14-07 14:40 | 10 - 12 ft | 293282-033 |
| BH-6 (15-17') | S | Nov-14-07 14:44 | 15 - 17 ft | 293282-034 |
| BH-6 (20-22') | S | Nov-14-07 14:50 | 20 - 22 ft | 293282-035 |
| BH-7 (0-2') | S | Nov-15-07 09:25 | 0 - 2 ft | 293282-036 |
| BH-7 (5-7') | S | Nov-15-07 09:31 | 5 - 7 ft | 293282-037 |
| BH-7 (10-12') | S | Nov-15-07 09:37 | 10 - 12 ft | 293282-038 |
| BH-7 (15-17') | S | Nov-15-07 09:47 | 15 - 17 ft | 293282-039 |
| BH-7 (20-22') | S | Nov-15-07 09:53 | 20 - 22 ft | 293282-040 |
| BH-7 (25-27') | S | Nov-15-07 10:02 | 25 - 27 ft | 293282-041 |
| BH-7 (30-32') | S | Nov-15-07 10:10 | 30 - 32 ft | 293282-042 |
| BH-8 (0-2') | S | Nov-15-07 10:20 | 0 - 2 ft | 293282-043 |
| | | | | |



Sample Cross Reference 293282

Ocotillo Environmental, LLC, Hobbs, NM

Chevron Lovington Deep State

| BH-8 (5-7') | S | Nov-15-07 10:29 | 5 - 7 ft | 293282-044 |
|----------------|---|-----------------|------------|------------|
| BH-8 (10-12') | S | Nov-15-07 10:32 | 10 - 12 ft | 293282-045 |
| BH-8 (15-17') | S | Nov-15-07 10:36 | 15 - 17 ft | 293282-046 |
| BH-8 (20-22') | S | Nov-15-07 10:40 | 20 - 22 ft | 293282-047 |
| BH-8 (25-27') | S | Nov-15-07 10:47 | 25 - 27 ft | 293282-048 |
| BH-9 (0-2') | S | Nov-15-07 11:00 | 0 - 2 ft | 293282-049 |
| BH-9 (5-7') | S | Nov-15-07 11:06 | 5 - 7 ft | 293282-050 |
| BH-9 (10-12') | S | Nov-15-07 11:15 | 10 - 12 ft | 293282-051 |
| BH-9 (15-17') | S | Nov-15-07 11:20 | 15 - 17 ft | 293282-052 |
| BH-9 (20-22') | S | Nov-15-07 11:25 | 20 - 22 ft | 293282-053 |
| BH-10 (0-2') | S | Nov-15-07 12:04 | 0 - 2 ft | 293282-054 |
| BH-10 (5-7') | S | Nov-15-07 12:12 | 5 - 7 ft | 293282-055 |
| BH-10 (10-12') | S | Nov-15-07 12:19 | 10 - 12 ft | 293282-056 |
| BH-10 (15-17') | S | Nov-15-07 12:24 | 15 - 17 ft | 293282-057 |
| BH-11 (0-2') | S | Nov-15-07 12:31 | 0 - 2 ft | 293282-058 |
| BH-11 (5-7') | S | Nov-15-07 12:35 | 5 - 7 ft | 293282-059 |
| BH-11 (10-12') | S | Nov-15-07 12:40 | 10 - 12 ft | 293282-060 |
| BH-11 (15-17') | S | Nov-15-07 12:46 | 15 - 17 ft | 293282-061 |
| BH-12 (0-2') | S | Nov-15-07 12:56 | 0 - 2 ft | 293282-062 |
| BH-12 (5-7') | S | Nov-15-07 13:00 | 5 - 7 ft | 293282-063 |
| BH-12 (10-12') | S | Nov-15-07 13:10 | 10 - 12 ft | 293282-064 |
| BH-12 (15-17') | S | Nov-15-07 13:14 | 15 - 17 ft | 293282-065 |
| BH-13 (0-2') | S | Nov-15-07 13:18 | 0 - 2 ft | 293282-066 |
| BH-13 (5-7') | S | Nov-15-07 13:22 | 5 - 7 ft | 293282-067 |
| BH-13 (10-12') | S | Nov-15-07 13:28 | 10 - 12 ft | 293282-068 |
| BH-13 (15-17') | S | Nov-15-07 13:35 | 15 - 17 ft | 293282-069 |
| | | | | |



Ocotillo Environmental, LLC, Hobbs, NM

Project Name: Chevron Lovington Deep State

Project Id: 1007-023B

Contact: Cindy Crain

Project Location: Sec. 5, T17S, R36E, Lea Co., NM

Date Received in Lab: Sat Nov-17-07 11:27 am

Report Date: 30-NOV-07
Project Manager: Brent Barron, II

| | Lab Id: | 293282-0 | 01 | 293282-0 | 02 | 293282-0 | 03 | 293282-0 | 004 | 293282-0 | 005 | 293282-0 | 006 |
|---|------------|-----------------|--------|-----------------|-------|-----------------|-------|-----------|-------|-----------|-------|-----------|-------|
| luene hylbenzene hylbenzene h-Xylenes Kylene lenes, Total tal BTEX Percent Moisture TPH by SW8015 Mod | Field Id: | BH-1 (0- | -2') | BH-1 (5- | 7') | BH-1 (10- | ·12') | BH-1 (15 | -17') | BH-1 (20 | -22) | BH-1 (25- | -27') |
| | Depth: | 0-2 ft | | 5-7 ft | | 10-12 ft | | 15-17 1 | ft | 20-22 | ft | 25-27 f | ft |
| | Matrix: | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | SOIL | | |
| | Sampled: | Nov-14-07 | 09 30 | Nov-14-07 (| 09 42 | Nov-14-07 | 09 50 | Nov-14-07 | 09.58 | Nov-14-07 | 10:05 | Nov-14-07 | 10.13 |
| BTEX by EPA 8021B | Extracted: | Nov-28-07 | 12 27 | | | | | | | | | | |
| | Analyzed: | Nov-29-07 | 13.36 | | | | | | | | | | |
| | Units/RL: | mg/kg | RL | | | | | | | | | | |
| Benzene | | 1 724 | 0 1190 | | | | | | | | | | |
| Toluene | | 43.48 | 0.2380 | | | | | | | | · | | |
| Ethylbenzene | | 34 43 | 0 1190 | | | | | | | | | | |
| m,p-Xylenes | | 81.51 | 0.2380 | | | | | | | | | | |
| o-Xylene | | 31 40 | 0 1190 | | | | | | | | | | |
| Xylenes, Total | | 112.91 | | | | | | | | | | | |
| otal BTEX | | 192.544 | | | | | | | | | | | |
| Percent Moisture | Extracted: | | | | | | | | | | | | |
| | Analyzed: | Nov-19-07 15:00 | | Nov-19-07 15.00 | | Nov-19-07 15:00 | | | | | | | |
| | Units/RL: | % | RL | % | RL | % | RL | | | | | | |
| Percent Moisture | | 160 | 1.00 | 7.24 | 1 00 | 8 21 | 1 00 | | | | | | |
| TPH by SW8015 Mod | Extracted: | Nov-20-07 | 14.20 | Nov-20-07 | 14 20 | Nov-20-07 | 14.20 | | | | | | |
| • | Analyzed: | Nov-25-07 | 17.56 | Nov-25-07 | 18:23 | Nov-25-07 | 18:50 | | | | | | |
| | Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | | | • | | | |
| C6-C12 Gasoline Range Hydrocarbons | | 2690 | 89.3 | 51.3 | 16.2 | 138 | 163 | | | | | | |
| C12-C28 Diesel Range Hydrocarbons | | 9520 | 89.3 | 201 | 16 2 | 879 | 16 3 | | | | | | |
| C28-C35 Oil Range Hydrocarbons | | 1140 | 89 3 | 38.4 | 16.2 | 112 | 16.3 | | | | | | |
| Total TPH | | 13350 | | 290.7 | | 1129 | | | | | | | |
| Total Chloride by EPA 325.3 | Extracted: | | | | | | | | | | | | |
| · | Analyzed: | Nov-20-07 | 08:30 | Nov-20-07 (| 08.30 | Nov-20-07 | 08.30 | Nov-20-07 | 08:30 | Nov-20-07 | 08:30 | Nov-20-07 | 08.30 |
| | Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 25300 | 5.95 | 6420 | 5 39 | 1850 | 5.45 | 936 | 5.00 | 128 | 5.00 | 85.1 | 5.00 |

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Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America



Ocotillo Environmental, LLC, Hobbs, NM

Project Name: Chevron Lovington Deep State

Project Id: 1007-023B

Contact: Cindy Crain

Project Location: Sec. 5, T17S, R36E, Lea Co., NM

Date Received in Lab: Sat Nov-17-07 11:27 am

Report Date: 30-NOV-07

Project Manager: Brent Barron, II

| Chloride | | 63.8 | 5,00 | 13400 | 5 82 | 10900 | 5.56 | 1290 | 5.21 | 85.1 | 5,00 | 42.5 | 5.00 |
|--|------------|-------------|----------|-----------------|--------|-----------------|--------|-----------------|-------|-----------------|-------|-----------------|-------|
| | Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Total Chloride by EPA 325.3 Exication Annual Control of the Contr | | Nov-20-07 (| 08.30 | Nov-20-07 08:30 | | Nov-20-07 08:30 | | Nov-20-07 00·00 | | Nov-20-07 00.00 | | Nov-20-07 00.00 | |
| Total TPH | | | | 12406 | | 63.6 | | ND | | | | | |
| C28-C35 Oil Range Hydrocarbons | | | | 926 | 87.2 | ND | 16.7 | ND | 15.6 | | | | |
| C12-C28 Diesel Range Hydrocarbons | | | | 7950 | 87.2 | 45.4 | 16 7 | ND | 15 6 | | | | |
| C6-C12 Gasoline Range Hydrocarbons | | | | 3530 | 87 2 | 18 2 | 16.7 | ND | 15 6 | | | | |
| | Units/RL: | | | mg/kg | RL | mg/kg | RL | mg/kg | RL | | | | |
| II II by StroutS triud | Analyzed: | | | Nov-25-07 | 19:16 | Nov-25-07 | 19:43 | Nov-25-07 | 20:09 | | | | |
| TPH by SW8015 Mod | Extracted: | | | Nov-20-07 | 14 20 | Nov-20-07 | 14:20 | Nov-20-07 | 14.20 | | | | |
| Percent Moisture | | | | 14.0 | 1.00 | 10.1 | 1 00 | 4.01 | 1.00 | | | | |
| | Units/RL: | | j | % | RL | % | RL | % | RL | | | | |
| Percent Moisture | Analyzed: | | | Nov-19-07 | 15:00 | Nov-19-07 | 15 00 | Nov-19-07 | 15.00 | | | | |
| Damana Mainten | Extracted: | | | | | | | | | | | | |
| Total BTEX | | | | 242 5141 | | 0 0096 | | | | | | | |
| /lenes, Total | | | | 147.47 | 5.2520 | 0.0077 | 2 0011 | | | | | | |
| o-Xylene | | | | 45 47 | | | 0.0022 | | | | | | |
| m,p-Xylenes | | | | 102 0 | | 0.0077 | | | | | | | |
| Ethylbenzene | | | | 44.11 49.95 | | 0 0019 | | | | | | | |
| Benzene Toluene | | | | 0 9841 | | | 0.0011 | | | | | | |
| December | Units/RL: | | | mg/kg | RL | mg/kg | RL | | | | | | |
| | Analyzed: | | | Nov-29-07 | | Nov-28-07 | | | | | | | |
| BTEX by EPA 8021B | Extracted: | | | Nov-28-07 | | Nov-28-07 | | | | | | | |
| | Sampled: | Nov-14-07 1 | 0:20 | Nov-14-07 | 10:38 | Nov-14-07 | 10.42 | Nov-14-07 | 10:50 | Nov-14-07 | 10.58 | Nov-14-07 1 | 11.02 |
| | Matrix: | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | Depth: | 30-32 ft | :) | 0-2 ft | Ì | 5-7 ft | | 10-12 f | t | 15-17 f | t | 20-22 ft | t |
| Analysis Requested | Field Id: | BH-1 (30- | <i>'</i> | BH-2 (0- | 2') | BH-2 (5- | | BH-2 (10- | ´ | BH-2 (15- | | BH-2 (20-2 | |
| | Lab Id: | 293282-00 | | 293282-0 | | 293282-0 | | 293282-0 | | 293282-0 | 1 | 293282-0 | |

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Ocotillo Environmental, LLC, Hobbs, NM

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Project Id: 1007-023B
Contact: Cindy Crain

Project Location: Sec. 5, T17S, R36E, Lea Co., NM

Date Received in Lab: Sat Nov-17-07 11:27 am

Report Date: 30-NOV-07

Project Manager: Brent Barron, II

| | | | | | | | Project Ma | nager. | Dieni Danon, | | | |
|---|------------|-----------------|--------------|------|-----------------|-------|-------------|--------|--------------|-------|-----------|-------|
| | Lab Id: | 293282-013 | 293282-01 | 4 | 293282-0 | 15 | 293282-0 | 016 | 293282-0 | 017 | 293282-0 | 18 |
| Analysis Requested | Field Id: | BH-2 (25-27') | BH-2 (30-3 | (2') | BH-3 (0- | 2') | BH-3 (5-7') | | BH-3 (10 | -12') | BH-3 (15- | -17') |
| Anuiysis Requesteu | Depth: | 25-27 ft | 30-32 ft | | 0-2 ft | | 5-7 ft | | 10-12 ft | | 15-17 f | ft |
| | Matrix: | SOIL | SOIL | | SOIL | | SOIL | | SOIL | . | SOIL | |
| _ | Sampled: | Nov-14-07 12·59 | Nov-14-07 13 | 3:04 | Nov-14-07 | 12 16 | Nov-14-07 | 12.21 | Nov-14-07 | 12.23 | Nov-14-07 | 12.31 |
| Percent Moisture | Extracted: | | | | | | | | | | | |
| 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | Analyzed: | | | | Nov-19-07 | 15.00 | Nov-19-07 | 15.00 | | | | |
| | Units/RL: | | | | % | RL | % | RL | | | | |
| Percent Moisture | | | | | 13.0 | 1 00 | 5.48 | 1.00 | | | | |
| TPH by SW8015 Mod | Extracted: | | | | Nov-20-07 | 14 20 | Nov-20-07 | 14 20 | | | | |
| 1111 by 5 (10015 1100 | Analyzed: | | | | Nov-25-07 20·35 | | Nov-25-07 | 21.01 | | | | |
| | Units/RL: | | | | mg/kg | RL | mg/kg | RL | | | | |
| C6-C12 Gasoline Range Hydrocarbons | | | | | ND | 17 2 | ND | 15.9 | | | | |
| C12-C28 Diesel Range Hydrocarbons | | | | | 30 5 | 17.2 | ND | 15 9 | | | | |
| C28-C35 Oil Range Hydrocarbons | | | | | ND | 17 2 | ND | 15.9 | | | | |
| Total TPH | | | | | 30 5 | | ND | | | | | |
| Total Chloride by EPA 325.3 | Extracted: | | | | | · | | | | | | |
| | Analyzed: | Nov-20-07 00.00 | Nov-20-07 0 | 0.00 | Nov-20-07 (| 00.00 | Nov-20-07 | 00 00 | Nov-20-07 | 00.00 | Nov-20-07 | 00.00 |
| | Units/RL: | mg/kg RI | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 53.2 5.00 | 42.5 | 5.00 | 17100 | 5.75 | 6080 | 5.29 | 191 | 5.00 | 117 | 5.00 |

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Ocotillo Environmental, LLC, Hobbs, NM

Project Name: Chevron Lovington Deep State

Project Id: 1007-023B

Contact: Cindy Crain

Project Location: Sec. 5, T17S, R36E, Lea Co., NM

Date Received in Lab: Sat Nov-17-07 11:27 am

Report Date: 30-NOV-07

| | | | | | | | | 11 | | | | | |
|------------------------------------|------------|-----------------|-------|-----------------|------|-----------------|------|-----------------|------|-----------------|-------|-----------------|------|
| Analysis Requested | Lab Id: | 293282-019 | | 293282-02 | 20 | 293282-021 | | 293282-022 | | 293282-023 | | 293282-024 | |
| | Field Id: | BH-3 (20-22') | | BH-3 (25-2 | 27') | BH-4 (0-2') | | BH-4 (5-7') | | BH-4 (10-12') | | BH-4 (15- | 17') |
| | Depth: | 20-22 ft | | 25-27 ft | : | 0-2 ft | | 5-7 ft | | 10-12 ft | | 15-17 ft | |
| | Matrix: | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | ł | SOIL | |
| | Sampled: | Nov-14-07 | 12.36 | Nov-14-07 1 | 2.46 | Nov-14-07 | 3 10 | Nov-14-07 13 21 | | Nov-14-07 1 | 13.23 | Nov-14-07 13·25 | |
| Percent Moisture | Extracted: | | | | | | | | | | | | |
| | Analyzed: | | | | | Nov-19-07 15.00 | | Nov-19-07 15:00 | | | | | |
| | Units/RL: | | | | | % | RL | % | RL | | | | |
| Percent Moisture | | | | | 6 34 | 1 00 | 1.20 | 1 00 | | | | | |
| TPH by SW8015 Mod | Extracted: | | | | | Nov-20-07 14.20 | | Nov-20-07 14 20 | | | | | |
| | Analyzed: | | | | | Nov-25-07 21.27 | | Nov-25-07 21.53 | | | | | |
| | Units/RL: | | | | | mg/kg | RL | mg/kg | RL | | 1 | | |
| C6-C12 Gasoline Range Hydrocarbons | | | | | | ND | 16 0 | ND | 15.2 | | | | |
| C12-C28 Diesel Range Hydrocarbons | | | | | | 37.1 | 16 0 | 37 8 | 15 2 | | | | |
| C28-C35 Oil Range Hydrocarbons | | | | | | ND | 16 0 | ND | 15.2 | | | | |
| Total TPH | | | | | | 37.1 | | 37 8 | | | | | |
| Total Chloride by EPA 325.3 | Extracted: | | | | | | | | | | | | |
| | Analyzed: | Nov-20-07 00:00 | | Nov-20-07 00.00 | | Nov-20-07 00 00 | | Nov-20-07 00.00 | | Nov-20-07 00:00 | | Nov-20-07 00:00 | |
| | Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 42 5 | 5 00 | 160 | 5.00 | 45.4 | 5.34 | 64.6 | 5.06 | 53.2 | 5.00 | 74 4 | 5.00 |

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Ocotillo Environmental, LLC, Hobbs, NM

Project Name: Chevron Lovington Deep State

Project Id: 1007-023B
Contact: Cindy Crain

Project Location: Sec. 5, T17S, R36E, Lea Co., NM

Date Received in Lab: Sat Nov-17-07 11:27 am

Report Date: 30-NOV-07

Project Manager: Brent Barron, II

| | | | | | | | | rioject Mai | iagei. | Brent Barron, | | | |
|--|------------|---|-----|-----------|--------|-----------|-------|-------------|--------|---------------|-------|-----------|-------|
| | Lab Id: | 293282-025 | | 293282-0 | 26 | 293282-0 | 27 | 293282-0 | 28 | 293282-0 | 029 | 293282-0 | 30 |
| Analysis Pagyastad | Field Id: | BH-4 (20-22') | | BH-5 (0- | -2') | BH-5 (5- | -7') | BH-5 (10- | 12') | BH-5 (15 | -17') | BH-5 (20- | -22') |
| Analysis Requested | Depth: | 20-22 ft | | 0-2 ft | | 5-7 ft | | 10-12 f | t | 15-17 | n l | 20-22 f | f |
| | Matrix: | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | Sampled: | Nov-14-07 13.3 | 1 | Nov-14-07 | 13.42 | Nov-14-07 | 13·49 | Nov-14-07 | 14.01 | Nov-14-07 | 14·07 | Nov-14-07 | 14·11 |
| BTEX by EPA 8021B | Extracted: | | | Nov-28-07 | 12:27 | | | | | | | | |
| BIEA by EI A 6021B | Analyzed: | | | Nov-29-07 | 16:23 | | | | | | | | |
| | Units/RL: | | | mg/kg | RL | | | | | | | | |
| Benzene | | | | 0 0716 | 0.0577 | | | | | | | | |
| Toluene | | | | 20.43 | 0.2308 | | | | | | | | |
| Ethylbenzene | | | | 43 65 | 0 1154 | | | | | | | | |
| m,p-Xylenes | | | | 97.00 | 0.2308 | | | | | | | | |
| o-Xylene | | | | 40.97 | 0 1154 | | | | | | | | |
| Xylenes, Total | | , | | 137.97 | | | | | | | | | |
| Total BTEX | | | | 202.1216 | | | | | | : | | | |
| Percent Moisture | Extracted: | | | | | | | | | | | | |
| 10.00.00.00.00.00.00.00.00.00.00.00.00.0 | Analyzed: | | | Nov-19-07 | 15:00 | Nov-19-07 | 15 00 | | | | | | |
| | Units/RL: | | | % | RL | % | RL | | | | | | |
| Percent Moisture | | | | 13 3 | 1 00 | 3.93 | 1.00 | | | | | | |
| TPH by SW8015 Mod | Extracted: | | | Nov-20-07 | 14 13 | Nov-20-07 | 14-13 | | | | | | |
| TITE Dy SWOOTS NIOU | Analyzed: | | | Nov-26-07 | 02:37 | Nov-26-07 | 03.03 | | | | | | |
| | Units/RL: | | | mg/kg | RL | mg/kg | RL | | | | | | |
| C6-C12 Gasoline Range Hydrocarbons | | | | 2590 | 86.6 | 34.9 | 15 6 | | | | | | |
| C12-C28 Diesel Range Hydrocarbons | | | | 10100 | 86.6 | 409 | 15.6 | | | | | | |
| C28-C35 Oil Range Hydrocarbons | | | | 1180 | 86.6 | 66.4 | 15 6 | | | | | | |
| Total TPH | | | | 13870 | | 510.3 | | | | | | | |
| Total Chloride by EPA 325.3 | Extracted: | | | | | | | | | | | | |
| | Analyzed: | Nov-20-07 00:0 | 0 | Nov-20-07 | 00:00 | Nov-20-07 | 00.00 | Nov-20-07 | 00.00 | Nov-20-07 | 00.00 | Nov-20-07 | 00.00 |
| | Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 42.5 5. | .00 | 15200 | 5.77 | 1880 | 5.20 | 42.5 | 5 00 | 106 | 5.00 | 74.4 | 5.00 |

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Ocotillo Environmental, LLC, Hobbs, NM

Project Name: Chevron Lovington Deep State

Project Id: 1007-023B

Contact: Cindy Crain

Project Location: Sec. 5, T17S, R36E, Lea Co., NM

Date Received in Lab: Sat Nov-17-07 11:27 am

Report Date: 30-NOV-07

| | | | | | | | | Project Mai | nager: | Brent Barron, | 11 | | |
|------------------------------------|------------|-----------|-------|-------------|-------|-----------|-------|-------------|--------|---------------|-------|-------------|-------|
| | Lab Id: | 293282-0 | 31 | 293282-0 | 32 | 293282-0 | 33 | 293282-0 | 34 | 293282-0 | 135 | 293282-0 | 36 |
| Analysis Daguested | Field Id: | BH-6 (0- | 2') | BH-6 (5- | 7') | BH-6 (10- | 12') | BH-6 (15- | 17') | BH-6 (20- | -22') | BH-7 (0- | 2') |
| Analysis Requested | Depth: | 0-2 ft | | 5-7 ft | | 10-12 f | ì | 15-17 f | t | 20-22 | t | 0-2 ft | |
| | Matrix: | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | Sampled: | Nov-14-07 | 14·28 | Nov-14-07 1 | 4.31 | Nov-14-07 | 14 40 | Nov-14-07 | 14 44 | Nov-14-07 | 14:50 | Nov-15-07 (| 09 25 |
| Percent Moisture | Extracted: | | | | | | | | | | | | |
| | Analyzed: | Nov-19-07 | 15:00 | Nov-19-07 1 | 5:00 | | | | | | | Nov-19-07 | 15.00 |
| | Units/RL: | % | RL | % | RL | | | | | | | 0/0 | RL |
| Percent Moisture | | 11.5 | 1.00 | 4.00 | 1 00 | | | | | | | 11.9 | 1 00 |
| TPH by SW8015 Mod | Extracted: | Nov-20-07 | 14 13 | Nov-20-07 1 | 4.13 | | | | | | | Nov-20-07 | 14 13 |
| 1111 by 5 11 0015 1110u | Analyzed: | Nov-26-07 | 03.28 | Nov-26-07 (| 3:54 | | | | | | | Nov-26-07 (| 04:20 |
| | Units/RL: | mg/kg | RL | mg/kg | RL | | | | | | | mg/kg | RL |
| C6-C12 Gasoline Range Hydrocarbons | | ND | 169 | ND | 15.6 | | | | | | | ND | 17.0 |
| C12-C28 Diesel Range Hydrocarbons | | 86 6 | 169 | ND | 15.6 | | | | | | | ND | 17.0 |
| C28-C35 Oil Range Hydrocarbons | | 17 2 | 16.9 | ND | 15 6 | | | | | | | ND | 17.0 |
| Total TPH | | 103 8 | | ND | | | | | | | | ND | |
| Total Chloride by EPA 325.3 | Extracted: | | | | | | | | | | į | | |
| | Analyzed: | Nov-20-07 | 00.00 | Nov-20-07 (| 00.00 | Nov-20-07 | 00.00 | Nov-20-07 | 00 00 | Nov-20-07 | 00.00 | Nov-20-07 (| 00.00 |
| | Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 12600 | 5.65 | 1130 | 5.21 | 42.5 | 5.00 | 42.5 | 5.00 | 234 | 5.00 | 7850 | 5.68 |

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Ocotillo Environmental, LLC, Hobbs, NM

Project Id: 1007-023B

Contact: Cindy Crain

Project Location: Sec. 5, T17S, R36E, Lea Co., NM

Project Name: Chevron Lovington Deep State

Date Received in Lab: Sat Nov-17-07 11.27 am

Report Date: 30-NOV-07

Project Manager: Brent Barron, II

| | Analyzed: Units/RL: | Nov-26-07 mg/kg | 04:45 RL | | | | | | | | | | |
|--------------------|---------------------|--------------------|-------------|--------------|-----|-------------|------|-------------|------|-----------|-------|-------------|-------|
| - | Analyzed: | Nov-26-07 | | | | | | | | | | | |
| TPH by SW8015 Mod | | | | | | | | | | | | | |
| TDU by CW9015 Mod | Extracted: | Nov-20-07 | 14.13 | | | | | | | | | | · |
| Percent Moisture | | 5 47 | 1.00 | | | | | | | | | | |
| | Units/RL: | % | RL | | | | | | | | | | |
| | Analyzed: | Nov-19-07 | | | | | | | | | | | |
| Percent Moisture | j J | N 10 07 | 16.00 | | | | | | 1 | | | | |
| | Extracted: | | | | | | | | | | | | |
| | Sampled: | Nov-15-07 | 09:31 | Nov-15-07 09 | ·37 | Nov-15-07 (| 9·47 | Nov-15-07 (| 9.53 | Nov-15-07 | 10:02 | Nov-15-07 1 | 10-10 |
| | Matrix: | SOIL | | SOIL | | SOIL | | SOIL | - | SOIL | | SOIL | |
| Analysis Requested | Depth: | 5-7 ft | | 10-12 ft | | 15-17 ft | : | 20-22 ft | | 25-27 f | t | 30-32 ft | t |
| Analysis Daguestad | Field Id: | BH-7 (5- | -7') | BH-7 (10-12 | 2') | BH-7 (15- | 17') | BH-7 (20- | 22') | BH-7 (25- | 27') | BH-7 (30-3 | 32') |
| | Lab Id: | 293282-0 | 137 | 293282-038 | 3 | 293282-0 | 39 | 293282-0 | 40 | 293282-0 | 41 | 293282-04 | 42 |

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Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America



Ocotillo Environmental, LLC, Hobbs, NM

Project Name: Chevron Lovington Deep State

Project Id: 1007-023B

Contact: Cindy Crain

Project Location: Sec. 5, T17S, R36E, Lea Co., NM

Date Received in Lab: Sat Nov-17-07 11:27 am

Report Date: 30-NOV-07

Project Manager: Brent Barron, II

| | . , | | | | | | | 110/00/11/14 | mager. | Dient Danion, | | , | |
|------------------------------------|------------|-----------|-------|-----------|-------|-----------|-------|--------------|--------|---------------|-------|-----------|-------|
| | Lab Id: | 293282-0 | 143 | 293282-0 |)44 | 293282-0 | 045 | 293282-0 |)46 | 293282-0 |)47 | 293282-0 |)48 |
| Analysis Requested | Field Id: | BH-8 (0- | -2') | BH-8 (5- | -7') | BH-8 (10 | -12') | BH-8 (15 | -17') | BH-8 (20 | -22') | BH-8 (25- | -27') |
| Anuiysis Kequesieu | Depth: | 0-2 ft | | 5-7 ft | | 10-12 | ft | 15-17 | ft | 20-22 | ft | 25-27 f | ft |
| | Matrix: | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | , | SOIL | |
| | Sampled: | Nov-15-07 | 10·20 | Nov-15-07 | 10:29 | Nov-15-07 | 10.32 | Nov-15-07 | 10.36 | Nov-15-07 | 10:40 | Nov-15-07 | 10.47 |
| Percent Moisture | Extracted: | | | | | | | | | | | | |
| | Analyzed: | Nov-19-07 | 16.00 | Nov-19-07 | 16.00 | | | | | | | | |
| | Units/RL: | % | RL | % | RL | | | | | | | | |
| Percent Moisture | | 12 6 | 1.00 | 1.91 | 1.00 | | | | | | | | |
| TPH by SW8015 Mod | Extracted: | Nov-20-07 | 14.13 | Nov-20-07 | 14 13 | | | | | | | | |
| 1111 by 5 11 6015 11164 | Analyzed: | Nov-26-07 | 05:11 | Nov-26-07 | 05:36 | | | | | | | | |
| | Units/RL: | mg/kg | RL | mg/kg | RL | | | | | | | | |
| C6-C12 Gasoline Range Hydrocarbons | | ND | 17.2 | ND | 15.3 | | | | | | | | |
| C12-C28 Diesel Range Hydrocarbons | | 22.2 | 17.2 | ND | 15.3 | | | | | | | | |
| C28-C35 Oil Range Hydrocarbons | | ND | 17.2 | ND | 15.3 | | | | | | | | |
| Total TPH | | 22.2 | | ND | | | | | | | | | |
| Total Chloride by EPA 325.3 | Extracted: | | | | | | | | | | | | |
| • | Analyzed: | Nov-20-07 | 00.00 | Nov-20-07 | 00 00 | Nov-20-07 | 00.00 | Nov-20-07 | 00.00 | Nov-20-07 | 00.00 | Nov-20-07 | 00.00 |
| | Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 3770 | 5.72 | 304 | 5.10 | 85.1 | 5.00 | 85.1 | 5.00 | 63.8 | 5.00 | 106 | 5.00 |

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Ocotillo Environmental, LLC, Hobbs, NM

Project Name: Chevron Lovington Deep State

Project Id: 1007-023B
Contact: Cindy Crain

Date Received in Lab: Sat Nov-17-07 11 27 am

Report Date: 30-NOV-07
Project Manager: Brent Barron, II

Project Location: Sec. 5, T17S, R36E, Lea Co., NM

| | | | | | | | | Project Ma | nager: | Brent Barron, | 11 | | |
|------------------------------------|------------|-----------|--------|-----------|--------|-----------|-------|------------|--------|---------------|-------|-------------|-------|
| | Lab Id: | 293282-0 | 049 | 293282-0 |)50 | 293282-0 | 151 | 293282-0 | 52 | 293282-0 |)53 | 293282-0 | 54 |
| Analysis Requested | Field Id: | BH-9 (0 | -2') | BH-9 (5 | -7') | BH-9 (10- | -12') | BH-9 (15- | -17') | BH-9 (20 | -22') | BH-10 (0- | -2') |
| Anuiysis Nequesieu | Depth: | 0-2 ft | : | 5-7 ft | | 10-12 f | ì | 15-17 f | ì | 20-22 | a l | 0-2 ft | |
| | Matrix: | SOIL | | SOIL | | SOIL | 1 | SOIL | | SOIL | İ | SOIL | |
| | Sampled: | Nov-15-07 | 11.00 | Nov-15-07 | 11.06 | Nov-15-07 | 11.15 | Nov-15-07 | 11.20 | Nov-15-07 | 11:25 | Nov-15-07 1 | 2 04 |
| BTEX by EPA 8021B | Extracted: | Nov-28-07 | 12 27 | Nov-28-07 | 13.51 | | | | | | | | |
| | Analyzed: | Nov-29-07 | 15 33 | Nov-28-07 | 20 24 | | | | | | | | |
| | Units/RL: | mg/kg | RL | mg/kg | RL | | | | | | | | |
| Benzene | | ND | 0 0012 | ND | 0.0010 | | | | | | | | |
| Toluene | | ND | 0 0023 | ND | 0.0021 | | | | | | | | |
| Ethylbenzene | | ND | 0 0012 | 0 0042 | 0 0010 | | | | | | | | |
| m,p-Xylenes | | ND | 0 0023 | 0.0058 | 0 0021 | | | | | | | | |
| o-Xylene | | ND | 0.0012 | 0 0191 | 0.0010 | | | | | | | | |
| Xylenes, Total | | ND | | 0.0249 | | | | | | | | | |
| Total BTEX | | ND | | 0.0291 | | | | | | | | | |
| Percent Moisture | Extracted: | | | | | | | | | | | | |
| | Analyzed: | Nov-19-07 | 16.00 | Nov-19-07 | 16.00 | Nov-19-07 | 16 00 | | | | | Nov-19-07 1 | 6.00 |
| | Units/RL: | % | RL | % | RL | % | RL | | | | | % | RL |
| Percent Moisture | | 14.2 | 1 00 | 4.67 | 1.00 | 3.49 | 1 00 | | | | | 5 54 | 1.00 |
| TPH by SW8015 Mod | Extracted: | Nov-20-07 | 14.13 | Nov-20-07 | 14 13 | Nov-20-07 | 14 13 | | | | | Nov-20-07 1 | 4.13 |
| 51 51 5 , 5 11 5 5 5 5 5 | Analyzed: | Nov-26-07 | 06:02 | Nov-26-07 | 06:53 | Nov-26-07 | 07:18 | | | | | Nov-26-07 0 | 7:43 |
| | Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | | | | | mg/kg | RL |
| C6-C12 Gasoline Range Hydrocarbons | | 162 | 87 4 | 73.7 | 15 7 | ND | 15.5 | | | | | ND | 15 9 |
| C12-C28 Diesel Range Hydrocarbons | | 893 | 87 4 | 285 | 15 7 | ND | 15 5 | | | | | ND | 15 9 |
| C28-C35 Oil Range Hydrocarbons | | 185 | 87.4 | 31.4 | 15.7 | ND | 15.5 | | | | | ND | 15.9 |
| Total TPH | | 1240 | | 390.1 | | ND | | | | | | ND | |
| Total Chloride by EPA 325.3 | Extracted: | | | | | | | | | | | | |
| 3 | Analyzed: | Nov-20-07 | 00.00 | Nov-20-07 | 00 00 | Nov-20-07 | 00.00 | Nov-20-07 | 00:00 | Nov-20-07 | 00:00 | Nov-20-07 0 | 00.00 |
| | Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 30000 | 5.83 | 2010 | 5.24 | 176 | 5.18 | 74.4 | 5.00 | 74.4 | 5.00 | 45.0 | 5.29 |

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Ocotillo Environmental, LLC, Hobbs, NM

Project Name: Chevron Lovington Deep State

Project Id: 1007-023B

Contact: Cindy Crain

Project Location: Sec. 5, T17S, R36E, Lea Co., NM

Date Received in Lab: Sat Nov-17-07 11:27 am

Report Date: 30-NOV-07

| | | | | | | | | Project Mar | 1ager: | Brent Barron, | П | | |
|------------------------------------|------------|-----------|-------|-------------|------|-------------|-------|-------------|--------|---------------|-------|-------------|-------|
| | Lab Id: | 293282-0 | 55 | 293282-05 | 6 | 293282-0 | 57 | 293282-0 | 58 | 293282-0 | 59 | 293282-06 | 60 |
| Analysis Paguastad | Field Id: | BH-10 (5 | -7') | BH-10 (10- | 12') | BH-10 (15- | -17') | BH-11 (0 | -2') | BH-11 (5 | -7') | BH-11 (10- | ·12') |
| Analysis Requested | Depth: | 5-7 ft | | 10-12 ft | | 15-17 ft | | 0-2 ft | | 5-7 ft | | 10-12 ft | |
| | Matrix: | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | Sampled: | Nov-15-07 | 12.12 | Nov-15-07 1 | 2.19 | Nov-15-07 1 | 2.24 | Nov-15-07 | 12.31 | Nov-15-07 | 12.35 | Nov-15-07 1 | 2 40 |
| Percent Moisture | Extracted: | | | | | | | | | | | | |
| 101001101110111110 | Analyzed: | Nov-19-07 | 16·00 | | | | | Nov-19-07 | 16.00 | Nov-19-07 | 16.00 | | |
| | Units/RL: | % | RL | | | | : | % | RL | % | RL | | |
| Percent Moisture | | 3 39 | 1.00 | | · | | | 11 0 | 1.00 | 2 98 | 1.00 | | |
| TPH by SW8015 Mod | Extracted: | Nov-20-07 | 14·13 | | | | | Nov-20-07 | 14 13 | Nov-20-07 | 14 13 | | |
| 11 12 25 2 77 0010 11204 | Analyzed: | Nov-26-07 | 08:09 | | | | | Nov-26-07 (| 08.36 | Nov-26-07 | 09:02 | | |
| | Units/RL: | mg/kg | RL | | | | | mg/kg | RL | mg/kg | RL | | |
| C6-C12 Gasoline Range Hydrocarbons | | ND | 15.5 | | | | | ND | 16.8 | ND | 15.5 | | |
| C12-C28 Diesel Range Hydrocarbons | | ND | 15 5 | | | | | ND | 16 8 | ND | 15 5 | | |
| C28-C35 Oil Range Hydrocarbons | | ND | 15.5 | | | | | ND | 16.8 | ND | 15.5 | | |
| Total TPH | | ND | | | | | | ND | | ND | | | |
| Total Chloride by EPA 325.3 | Extracted: | | | | | | | | | | | | |
| 10101 C by 2212 02010 | Analyzed: | Nov-20-07 | 00 00 | Nov-20-07 0 | 0:00 | Nov-20-07 (| 00 00 | Nov-20-07 (| 00.00 | Nov-20-07 | 00.00 | Nov-20-07 0 | 00.00 |
| | Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 44.0 | 5.18 | 42.5 | 5.00 | 31.9 | 5.00 | 47.7 | 5 62 | 32 9 | 5 15 | 42.5 | 5.00 |

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Ocotillo Environmental, LLC, Hobbs, NM

Project Name: Chevron Lovington Deep State

Project Id: 1007-023B

Contact: Cindy Crain

Project Location: Sec. 5, T17S, R36E, Lea Co., NM

Date Received in Lab: Sat Nov-17-07 11:27 am

Report Date: 30-NOV-07

| bject Edeation. Sec. 3, 1173, RSOE, Lea Co., | 14141 | | | | | | | Project Mar | nager: | Brent Barron, | П | | |
|--|------------|-----------|-------|-----------|-------|-------------|-------|-------------|--------|---------------|-------|-------------|-------|
| | Lab Id: | 293282-0 | 61 | 293282-0 | 62 | 293282-0 | 63 | 293282-0 | 164 | 293282-0 | 65 | 293282-0 | 66 |
| Analysis Dagwastad | Field Id: | BH-11 (15 | -17') | BH-12 (0 | -2') | BH-12 (5 | -7') | BH-12 (10 | -12') | BH-12 (15 | -17') | BH-13 (0- | -2') |
| Analysis Requested | Depth: | 15-17 f | t | 0-2 ft | | 5-7 ft | 1 | 10-12 f | t | 15-17 f | t | 0-2 ft | |
| | Matrix: | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | Sampled: | Nov-15-07 | 12.46 | Nov-15-07 | 12.56 | Nov-15-07 | 13.00 | Nov-15-07 | 13·10 | Nov-15-07 | 13:14 | Nov-15-07 1 | 13:18 |
| Percent Moisture | Extracted: | | | | | | | | | | | | |
| 7 01 00110 11/20101410 | Analyzed: | | | Nov-19-07 | 16.00 | Nov-19-07 | 16.00 | | : | | | Nov-19-07 1 | 6.00 |
| • | Units/RL: | | | % | RL | % | RL | | | | | % | RL |
| Percent Moisture | | | | 5.44 | 1.00 | 6.92 | 1.00 | | | | | 3.52 | 1.00 |
| TPH by SW8015 Mod | Extracted: | | | Nov-20-07 | 14.13 | Nov-20-07 | 14 13 | | | | | Nov-20-07 1 | 14·13 |
| TITE OF SWOODS MADE | Analyzed: | | | Nov-26-07 | 9:30 | Nov-26-07 (| 09:58 | | | | | Nov-26-07 1 | 10.29 |
| | Units/RL: | | | mg/kg | RL | mg/kg | RL | | | | | mg/kg | RL |
| C6-C12 Gasoline Range Hydrocarbons | | | | ND | 15.9 | ND | 16 1 | | | | | ND | 15.5 |
| C12-C28 Diesel Range Hydrocarbons | | | | 48.9 | 15.9 | 32.7 | 16.1 | | | | | 38.5 | 15.5 |
| C28-C35 Oil Range Hydrocarbons | - | | | ND | 15.9 | ND | 16.1 | | | | | ND | 15 5 |
| Total TPH | | | | 48.9 | | 32.7 | | | | | | 38.5 | |
| Total Chloride by EPA 325.3 | Extracted: | | | | | | | | | | | | |
| 20001 C-1101 Uj 1111 U 1010 | Analyzed: | Nov-20-07 | 00:00 | Nov-20-07 | 00 00 | Nov-20-07 | 00:00 | Nov-20-07 | 00:00 | Nov-20-07 | 00.00 | Nov-20-07 (| 00.00 |
| | Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 319 | 5.00 | 33.7 | 5.29 | 45.7 | 5.37 | 63.8 | 5.00 | 42.5 | 5.00 | 33.1 | 5.18 |

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Ocotillo Environmental, LLC, Hobbs, NM

Project Name: Chevron Lovington Deep State

Project Id: 1007-023B

Contact: Cindy Crain

Project Location: Sec. 5, T17S, R36E, Lea Co, NM

Date Received in Lab: Sat Nov-17-07 11:27 am

Report Date: 30-NOV-07

| oject Location: Sec. 5, 11/8, R36E, Lea Co, | NM | | | | | | | | | |
|---|------------|-----------|-------|-----------|-------|-----------|-------|------------------|------------------|--|
| | | | | | | | | Project Manager: | Brent Barron, II | |
| | Lab Id: | 293282-0 | 067 | 293282-0 | 68 | 293282-0 | 169 | | | |
| Amalusia Paguastad | Field Id: | BH-13 (5 | 5-7') | BH-13 (10 | -12') | BH-13 (15 | -17') | | | |
| Analysis Requested | Depth: | 5-7 ft | | 10-12 f | t | 15-17 f | f | | | |
| | Matrix: | SOIL | | SOIL | Ì | SOIL | | | | |
| | Sampled: | Nov-15-07 | 13.22 | Nov-15-07 | 13:28 | Nov-15-07 | 13.35 | | | |
| Percent Moisture | Extracted: | | | | | - | | | | |
| · | Analyzed: | Nov-19-07 | 16.00 | | l | | | | | |
| | Units/RL: | % | RL | | | | | | | |
| Percent Moisture | | 1.32 | 1 00 | | | | | | | |
| TPH by SW8015 Mod | Extracted: | Nov-20-07 | 14.13 | | | | | - | | |
| 11 11 by 5 11 0015 11 00 | Analyzed: | Nov-26-07 | 10.59 | | 1 | | | | | |
| | Units/RL: | mg/kg | RL | | ļ | | | | | |
| C6-C12 Gasoline Range Hydrocarbons | | ND | 15 2 | | | | | | | |
| C12-C28 Diesel Range Hydrocarbons | | ND | 15.2 | | | - | | | | |
| C28-C35 Oil Range Hydrocarbons | | ND | 15 2 | | | | | | | |
| Total TPH | | ND | | | | | | | | |
| Total Chloride by EPA 325.3 | Extracted: | | | | | | | | | |
| Total Caldida by El H 54515 | Analyzed: | Nov-20-07 | 00.00 | Nov-20-07 | 00.00 | Nov-20-07 | 00.00 | | | |
| | Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | | | |
| Chloride | | 86 2 | 5.07 | 42.5 | 5.00 | 53.2 | 5.00 | | | |

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Flagging Criteria

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL and above the SQL.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- * Outside XENCO'S scope of NELAC Accreditation

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Project Name: Chevron Lovington Deep State

Work Order #: 293282

Project ID: 1007-023B

Lab Batch #: 709436

Sample: 293282-009 / SMP

Batch:

Matrix: Soil

| Units: mg/kg | SU | RROGATE R | ECOVERY S | STUDY | |
|----------------------|------------------------|-----------------------|----------------|-------------------------|-------|
| BTEX by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags |
| Analytes | | | [D] | | |
| 1,4-Difluorobenzene | 0.0325 | 0.0300 | 108 | 80-120 | |
| 4-Bromofluorobenzene | 0.0355 | 0.0300 | 118 | 80-120 | |

Lab Batch #: 709436

Sample: 293282-050 / SMP

Batch:

Matrix: Soil

| Units: mg/kg | SU | RROGATE R | ECOVERY : | STUDY | |
|----------------------|------------------------|-----------------------|----------------|-------------------------|-------|
| BTEX by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags |
| Analytes | | | [D] | | |
| 1,4-Difluorobenzene | 0.0355 | 0.0300 | 118 | 80-120 | |
| 4-Bromofluorobenzene | 0.0327 | 0.0300 | 109 | 80-120 | |

Lab Batch #: 709436

Sample: 501986-1-BKS / BKS

Batch:

Matrix: Solid

| Units: mg/kg | SU | RROGATE R | ECOVERY | STUDY | |
|----------------------|------------------------|-----------------------|----------------|-------------------------|-------|
| BTEX by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags |
| Analytes | | | [D] | | |
| 1,4-Difluorobenzene | 0.0329 | 0.0300 | 110 | 80-120 | |
| 4-Bromofluorobenzene | 0.0310 | 0.0300 | 103 | 80-120 | |

Lab Batch #: 709436

Sample: 501986-1-BLK / BLK

Batch:

Matrix: Solid

| Units: mg/kg | SU | RROGATE R | RECOVERY | STUDY | |
|----------------------|------------------------|-----------------------|----------------|-------------------------|-------|
| BTEX by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags |
| Analytes | | (-, | [D] | , • • • | |
| 1,4-Difluorobenzene | 0.0352 | 0.0300 | 117 | 80-120 | |
| 4-Bromofluorobenzene | 0.0291 | 0.0300 | 97 | 80-120 | |

Lab Batch #: 709436

Sample: 501986-1-BSD / BSD

Batch: 1

Matrix: Solid

| Units: mg/kg | SU | SURROGATE RECOVERY STUDY | | | | | |
|-----------------------------|------------------------|--------------------------|-----------------------|-------------------------|-------|--|--|
| BTEX by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | | |
| 1.4-Difluorobenzene | 0.0327 | 0.0300 | 109 | 80-120 | | | |
| 4-Bromofluorobenzene | 0.0316 | 0.0300 | 105 | 80-120 | | | |

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution Surrogate Recovery [D] = 100 * A / B



Project Name: Chevron Lovington Deep State

Work Order #: 293282

Project ID: 1007-023B

Lab Batch #: 709491

Sample: 293282-001 / SMP

Batch:

Matrix: Soil

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|----------------------|--------------------------|-----------------------|----------------|-------------------------|-------|--|
| BTEX by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| Analytes | | | [D] | | | |
| 1,4-Difluorobenzene | 0.3434 | 0.0300 | 1145 | 80-120 | ** | |
| 4-Bromofluorobenzene | 0.0383 | 0.0300 | 128 | 80-120 | ** | |

Lab Batch #: 709491

Sample: 293282-008 / SMP

Batch: 1

Matrix: Soil

SURROGATE RECOVERY STUDY Units: mg/kg

| BTEX by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|-----------------------------|------------------------|-----------------------|-----------------------|-------------------------|-------|
| 1,4-Difluorobenzene | 0.2682 | 0.0300 | 894 | 80-120 | ** |
| 4-Bromofluorobenzene | 0.0399 | 0.0300 | 133 | 80-120 | ** |

Lab Batch #: 709491

Sample: 293282-026 / SMP

Batch:

Matrix: Soil

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|----------------------|--------------------------|-----------------------|----------------|-------------------------|-------|--|
| BTEX by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| Analytes | 1 | | [D] | | | |
| 1,4-Difluorobenzene | 0.0396 | 0.0300 | 132 | 80-120 | ** | |
| 4-Bromofluorobenzene | 0.0664 | 0.0300 | 221 | 80-120 | ** | |

Lab Batch #: 709491

Sample: 293282-049 / SMP

Batch:

Matrix: Soil

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|----------------------|--------------------------|-----------------------|----------------|-------------------------|-------|--|
| BTEX by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| Analytes | , | | [D] | , | | |
| 1,4-Difluorobenzene | 0.0356 | 0.0300 | 119 | 80-120 | | |
| 4-Bromofluorobenzene | 0.0336 | 0.0300 | 112 | 80-120 | | |

Lab Batch #: 709491

Sample: 502014-1-BKS / BKS

Batch: 1

Matrix: Solid

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|-----------------------------|--------------------------|-----------------------|-----------------------|-------------------------|-------|--|
| BTEX by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | |
| 1,4-Difluorobenzene | 0.0324 | 0.0300 | 108 | 80-120 | | |
| 4-Bromofluorobenzene | 0.0413 | 0.0300 | 138 | 80-120 | * | |

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

Surrogate Recovery [D] = 100 * A / B

^{***} Poor recoveries due to dilution



Project Name: Chevron Lovington Deep State

Work Order #: 293282

Project ID: 1007-023B

Lab Batch #: 709491

Sample: 502014-1-BLK / BLK

Matrix: Solid Batch:

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|----------------------|--------------------------|-----------------------|----------------|-------------------------|-------|--|
| BTEX by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| Analytes | | | [D] | | | |
| 1,4-Difluorobenzene | 0.0350 | 0.0300 | 117 | 80-120 | | |
| 4-Bromofluorobenzene | 0.0283 | 0.0300 | 94 | 80-120 | | |

Lab Batch #: 709491

Sample: 502014-1-BSD / BSD

Batch: 1

Matrix: Solid

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|----------------------|--------------------------|-----------------------|----------------|-------------------------|---------------------------------------|--|
| BTEX by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| Analytes | 10-3 | [2] | [D] | / / / | | |
| 1,4-Difluorobenzene | 0.0326 | 0.0300 | 109 | 80-120 | | |
| 4-Bromofluorobenzene | 0.0335 | 0.0300 | 112 | 80-120 | · · · · · · · · · · · · · · · · · · · | |

Lab Batch #: 709244

Sample: 293280-001 S / MS

Batch:

Matrix: Soil

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|-------------------|--------------------------|-----------------------|----------------|-------------------------|-------|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| Analytes | [] | 12, | [D] | , , , , | | |
| 1-Chlorooctane | 119 | 100 | 119 | 70-135 | | |
| o-Terphenyl | 53.8 | 50.0 | 108 | 70-135 | | |

Lab Batch #: 709244

Sample: 293280-001 SD / MSD

Batch:

Matrix: Soil

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|-------------------|--------------------------|-----------------------|----------------|-------------------------|-------------|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| Analytes | | | [D] | | | |
| 1-Chlorooctane | 116 | 100 | 116 | 70-135 | | |
| o-Terphenyl | 55.2 | 50.0 | 110 | 70-135 | | |

Lab Batch #: 709244

Sample: 293282-001 / SMP

Batch: 1

Matrix: Soil

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|-------------------|--------------------------|-----------------------|----------------|-------------------------|-------|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| Analytes | | | [D] | | | |
| 1-Chlorooctane | 148 | 100 | 148 | 70-135 | ** | |
| o-Terphenyl | 123 | 50.0 | 246 | 70-135 | ** | |

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

Surrogate Recovery [D] = 100 * A/BAll results are based on MDL and validated for QC purposes.

^{***} Poor recoveries due to dilution



Project Name: Chevron Lovington Deep State

Work Order #: 293282

Project ID: 1007-023B

Lab Batch #: 709244

Sample: 293282-002 / SMP

Matrix: Soil Batch:

| Units: mg/kg | SU | SURROGATE RECOVERY STUDY | | | | | |
|-------------------|------------------------|--------------------------|----------------|-------------------------|-------|--|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | | |
| Analytes | | | [D] | | | | |
| 1-Chlorooctane | 99.0 | 100 | 99 | 70-135 | | | |
| o-Terphenyl | 51.3 | 50.0 | 103 | 70-135 | | | |

Lab Batch #: 709244

Sample: 293282-003 / SMP

Batch: 1

Matrix: Soil

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|-------------------|--------------------------|-----------------------|-------------|-------------------------|-------|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| Analytes | [| [-] | [D] | | | |
| 1-Chlorooctane | 125 | 100 | 125 | 70-135 | | |
| o-Terphenyl | 64.8 | 50.0 | 130 | 70-135 | | |

Lab Batch #: 709244

Sample: 293282-008 / SMP

Batch: 1

Matrix: Soil

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|-----------------------------|--------------------------|-----------------------|-----------------------|-------------------------|-------|--|
| TPH by SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | |
| 1-Chlorooctane | 166 | 100 | 166 | 70-135 | ** | |
| o-Terphenyl | 105 | 50.0 | 210 | 70-135 | ** | |

Lab Batch #: 709244

Sample: 293282-009 / SMP

Batch:

Matrix: Soil

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|-----------------------------|--------------------------|-----------------------|-------------|-------------------------|-------|--|
| TPH by SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| | | , | [D] | | | |
| 1-Chlorooctane | 101 | 100 | 101 | 70-135 | | |
| o-Terphenyl | 51.5 | 50.0 | 103 | 70-135 | | |

Lab Batch #: 709244

Sample: 293282-010 / SMP

Batch: 1

Matrix: Soil

| Units: mg/kg | SU | SURROGATE RECOVERY STUDY | | | | | |
|-------------------|------------------------|--------------------------|----------------|-------------------------|---|--|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | | |
| Analytes | | | [D] | | | | |
| 1-Chlorooctane | 97.2 | 100 | 97 | 70-135 | · | | |
| o-Terphenyl | 49.8 | 50.0 | 100 | 70-135 | • | | |

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

Surrogate Recovery [D] = 100 * A / B

^{***} Poor recoveries due to dilution



Project Name: Chevron Lovington Deep State

Work Order #: 293282

Lab Batch #: 709244

Sample: 293282-015 / SMP

Project ID: 1007-023B

Matrix: Soil Batch:

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|-------------------------|--------------------------|-----------------------|-----------------------|-------------------------|-------|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | |
| Analytes 1-Chlorooctane | 104 | 100 | 104 | 70-135 | | |
| o-Terphenyl | 52.6 | 50.0 | 105 | 70-135 | | |

Lab Batch #: 709244

Sample: 293282-016 / SMP

Batch: 1

Matrix: Soil

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|-------------------|--------------------------|-----------------------|----------------|-------------------------|-------|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| Analytes | | | | | | |
| 1-Chlorooctane | 103 | 100 | 103 | 70-135 | ···· | |
| o-Terphenyl | 52.2 | 50.0 | 104 | 70-135 | | |

Lab Batch #: 709244

Sample: 293282-021 / SMP

Batch:

Matrix: Soil

| Units: mg/kg | SU | SURROGATE RECOVERY STUDY | | | | | |
|-------------------|------------------------|--------------------------|----------------|-------------------------|-------|--|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | | |
| Analytes | | | [D] | | | | |
| 1-Chlorooctane | 98.0 | 100 | 98 | 70-135 | · | | |
| o-Terphenyl | 50.1 | 50.0 | 100 | 70-135 | | | |

Lab Batch #: 709244

Sample: 293282-022 / SMP

Batch:

Matrix: Soil

| Units: mg/kg | SU | SURROGATE RECOVERY STUDY | | | | | |
|-------------------|------------------------|--------------------------|----------------|-------------------------|-------|--|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | | |
| Analytes | | | [D] | | | | |
| 1-Chlorooctane | 96.6 | 100 | 97 | 70-135 | | | |
| o-Terphenyl | 47.6 | 50.0 | 95 | 70-135 | | | |

Lab Batch #: 709244

Sample: 501860-1-BKS / BKS

Batch: 1

Matrix: Solid

| Units: mg/kg | SU | SURROGATE RECOVERY STUDY | | | | | |
|-----------------------------|------------------------|--------------------------|-----------------------|-------------------------|-------|--|--|
| TPH by SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | | |
| 1-Chlorooctane | 107 | 100 | 107 | 70-135 | | | |
| o-Terphenyl . | 52.2 | 50.0 | 104 | 70-135 | | | |

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

Surrogate Recovery [D] = 100 * A / B

^{***} Poor recoveries due to dilution



Project Name: Chevron Lovington Deep State

Work Order #: 293282

Project ID: 1007-023B

Lab Batch #: 709244

Sample: 501860-1-BLK / BLK

Matrix: Solid Batch:

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|-------------------|--------------------------|-----------------------|----------------|-------------------------|----------|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| Analytes | | | [D] | | | |
| 1-Chlorooctane | 101 | 100 | 101 | 70-135 | | |
| o Tembenyi | 51.0 | 50.0 | 102 | 70 135 | <u> </u> | |

Lab Batch #: 709244

Sample: 501860-1-BSD / BSD

Batch:

Matrix: Solid

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|-------------------|--------------------------|-----------------------|----------------|-------------------------|-------|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| Analytes | | | [D] | | | |
| 1-Chlorooctane | 113 | 100 | 113 | 70-135 | | |
| o-Terphenyl | 49.8 | 50.0 | 100 | 70-135 | | |

Lab Batch #: 709250

Sample: 293282-026 / SMP

Batch:

Matrix: Soil

| Units: mg/kg | SU | SURROGATE RECOVERY STUDY | | | | | |
|-------------------|------------------------|--------------------------|----------------|-------------------------|-------|--|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | | |
| Analytes | | | [D] | | | | |
| 1-Chlorooctane | 159 | 100 | 159 | 70-135 | ** | | |
| o-Terphenyl | 114 | 50.0 | 228 | 70-135 | ** | | |

Lab Batch #: 709250

Sample: 293282-027 / SMP

Batch:

Matrix: Soil

| Units: mg/kg | SU | SURROGATE RECOVERY STUDY | | | | | |
|-------------------|------------------------|--------------------------|----------------|-------------------------|-------|--|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | | |
| Analytes | | | [D] | | | | |
| 1-Chlorooctane | 101 | 100 | 101 | 70-135 | | | |
| o-Terphenyl | 53.9 | 50.0 | 108 | 70-135 | | | |

Lab Batch #: 709250

Sample: 293282-031 / SMP

Batch: 1

Matrix: Soil

| Units: mg/kg | SURROGATE RECOVERY STUDY ' | | | | | |
|-------------------|----------------------------|-----------------------|----------------|-------------------------|-------|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| Analytes | | | [D] | | | |
| 1-Chlorooctane | 100 | 100 | 100 | 70-135 | | |
| o-Terphenyl "p" | 51.6 | 50.0 | 103 | 70-135 | | |

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

Surrogate Recovery [D] = 100 * A / B

^{***.} Poor recoveries due to dilution



Project Name: Chevron Lovington Deep State

Work Order #: 293282

Project ID: 1007-023B

Lab Batch #: 709250

Sample: 293282-031 S / MS

Matrix: Soil

| Units: mg/kg | SU | SURROGATE RECOVERY STUDY | | | | | | |
|-----------------------------|------------------------|--------------------------|-----------------------|-------------------------|-------|--|--|--|
| TPH by SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | | | |
| 1-Chlorooctane | 99.2 | 100 | 99 | 70-135 | | | | |
| o-Terphenyl | 48.1 | 50.0 | 96 | 70-135 | | | | |

Lab Batch #: 709250

Sample: 293282-031 SD / MSD Batch: 1

Matrix: Sludge

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | | |
|-----------------------------|--------------------------|-----------------------|-----------------------|-------------------------|--------|--|--|
| TPH by SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | | |
| 1-Chlorooctane | 102 | 100 | 102 | 70-135 | * **** | | |
| o-Terphenyl | 49.6 | 50.0 | 99 | 70-135 | | | |

Lab Batch #: 709250

Sample: 293282-032 / SMP

Batch: 1

Matrix: Soil

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|-------------------|--------------------------|-----------------------|----------------|-------------------------|-------|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| Analytes | | | [D] | | | |
| 1-Chlorooctane | 101 | 100 | 101 | 70-135 | | |
| o-Terphenyl | 51.9 | 50.0 | 104 | 70-135 | | |

Lab Batch #: 709250

Sample: 293282-036 / SMP

Batch:

Matrix: Soil

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|-------------------|--------------------------|-----------------------|----------------|-------------------------|-------|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| Analytes | | | [D] | | | |
| 1-Chlorooctane | 102 | 100 | 102 | 70-135 | | |
| o-Terphenyl | 52.7 | 50.0 | 105 | 70-135 | | |

Lab Batch #: 709250

Sample: 293282-037 / SMP

Batch: 1

Matrix: Soil

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|-------------------|--------------------------|-----------------------|----------------|-------------------------|-------|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| Analytes | | | [D] | | | |
| 1-Chlorooctane | 96.7 | 100 | 97 | 70-135 | | |
| o-Terphenyl " | 49.4 | 50.0 | 99 | 70-135 | | |

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Project Name: Chevron Lovington Deep State

Work Order #: 293282

Project ID: 1007-023B

Lab Batch #: 709250

Sample: 293282-043 / SMP

Batch:

Matrix: Soil

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|-----------------------------|--------------------------|-----------------------|----------------|-------------------------|-------|--|
| TPH by SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| | | [D] | | | | |
| 1-Chlorooctane | 96.4 | 100 | 96 | 70-135 | | |
| o-Terphenyl | 49.7 | 50.0 | 99 | 70-135 | | |

Lab Batch #: 709250

Sample: 293282-044 / SMP

Batch: 1

Matrix: Soil

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|-----------------------------|--------------------------|-----------------------|----------------|-------------------------|-------|--|
| TPH by SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| | | | [D] | | | |
| 1-Chlorooctane | 88.9 | 100 | 89 | 70-135 | | |
| o-Terphenyl | 45.8 | 50.0 | 92 | 70-135 | | |

Lab Batch #: 709250

Sample: 293282-049 / SMP

Batch:

Matrix: Soil

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|-------------------------|--------------------------|-----------------------|-----------------------|-------------------------|-------|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | |
| Analytes 1-Chlorooctane | 94.8 | 100 | 95 | 70-135 | | |
| o-Terphenyl | 57.4 | 50.0 | 115 | 70-135 | * | |

Lab Batch #: 709250

Sample: 293282-050 / SMP

Batch:

Matrix: Soil

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|-------------------|--------------------------|-----------------------|----------------|-------------------------|-------|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| Analytes | | | [D] | | | |
| 1-Chlorooctane | 94.3 | 100 | 94 | 70-135 | | |
| o-Terphenyl | 48.8 | 50.0 | 98 | 70-135 | | |

Lab Batch #: 709250

Sample: 293282-051 / SMP

Batch: 1

Matrix: Soil

| Units: mg/kg SURROGATE RECOVERY S | | | | STUDY | | |
|-----------------------------------|---------------|------------------------|-----------------------|-------------|-------------------------|-------|
| ТРН | oy SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags |
| | Analytes | | | [D] | | |
| 1-Chlorooctane | () | 95.6 | 100 | 96 | 70-135 | |
| o-Terphenyl | 9 | 48.5 | 50.0 | 97 | 70-135 | |

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

Surrogate Recovery [D] = 100 * A / B

^{***} Poor recoveries due to dilution



Project Name: Chevron Lovington Deep State

Work Order #: 293282

Sample: 293282-054 / SMP

Project ID: 1007-023B

Lab Batch #: 709250

Matrix: Soil

| Units: mg/kg SURROGATE RECOVERY STU | | | | STUDY | |
|-------------------------------------|------------------------|-----------------------|-----------------------|-------------------------|-------|
| TPH by SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
| 1-Chlorooctane | 97.1 | 100 | 97 | 70-135 | |
| o-Terphenyl | 49.5 | 50.0 | 99 | 70-135 | |

Lab Batch #: 709250

Sample: 293282-055 / SMP

Batch:

Matrix: Soil

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | | |
|-------------------|--------------------------|-----------------------|----------------|-------------------------|-------|--|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | | |
| Analytes | | | [D] | | | | |
| 1-Chlorooctane | 89.8 | 100 | 90 | 70-135 | | | |
| o-Terphenyl | 45.7 | 50.0 | 91 | 70-135 | | | |

Lab Batch #: 709250

Sample: 293282-058 / SMP

Batch: 1

Matrix: Soil

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|-------------------|--------------------------|-----------------------|----------------|-------------------------|-------|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| Analytes | | | [D] | | | |
| 1-Chlorooctane | 85.8 | 100 | 86 | 70-135 | | |
| o-Terphenyl | 44.7 | 50.0 | 89 | 70-135 | | |

Lab Batch #: 709250

Sample: 293282-059 / SMP

Batch: 1

Matrix: Soil

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | | |
|-------------------|--------------------------|-----------------------|----------------|-------------------------|-------|--|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | | |
| Analytes | | | [D] | | | | |
| 1-Chlorooctane | 89.5 | 100 | 90 | 70-135 | | | |
| o-Terphenyl | 45.5 | 50.0 | 91 | 70-135 | | | |

Lab Batch #: 709250

Sample: 293282-062 / SMP

Batch:

Matrix: Soil

| Units: mg/kg | | SURROGATE RECOVERY STUDY | | | | | |
|----------------|------------|--------------------------|-----------------------|----------------|-------------------------|-------|--|
| TPH by | SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| Aı | ıalytes | | | [D] | | | |
| 1-Chlorooctane | • " | 92.6 | 100 | 93 | 70-135 | | |
| o-Terphenyl | . , | 47.0 | 50.0 | 94 | 70-135 | | |

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

Surrogate Recovery [D] = 100 * A / B

^{***} Poor recoveries due to dilution



Project Name: Chevron Lovington Deep State

Work Order #: 293282

Project ID: 1007-023B

Lab Batch #: 709250

Sample: 293282-063 / SMP

Batch:

Matrix: Soil

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|-------------------|--------------------------|-----------------------|----------------|-------------------------|-------|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| Analytes | | | [D] | | | |
| 1-Chlorooctane | 88.6 | 100 | 89 | 70-135 | | |
| o-Terphenyl | 45.7 | 50.0 | 91 | 70-135 | | |

Lab Batch #: 709250

Sample: 293282-066 / SMP

Batch: 1

Matrix: Soil

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | | |
|-------------------|--------------------------|-----------------------|----------------|-------------------------|-------|--|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | | |
| Analytes | [24] | (10) | [D] | /41 | | | |
| 1-Chlorooctane | 85.4 | 100 | 85 | 70-135 | | | |

43.1

Lab Batch #: 709250

o-Terphenyl

Sample: 293282-067 / SMP

Batch:

Matrix: Soil

86

50.0

70-135

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | |
|-------------------|--------------------------|-----------------------|----------------|-------------------------|-------|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| Analytes | | | [D] | | | |
| 1-Chlorooctane | 82.5 | 100 | 83 | 70-135 | | |
| o-Terphenyl | 40.6 | 50.0 | 81 | 70-135 | | |

Lab Batch #: 709250

Sample: 501858-1-BKS / BKS

Batch:

Matrix: Solid

| Units: mg/kg | SURROGATE RECOVERY STUDY | | | | | | |
|-------------------|--------------------------|-----------------------|----------------------|-------------------------|-------|--|--|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R D | Control Limits %R | Flags | | |
| Analytes | | | | | | | |
| 1-Chlorooctane | 119 | 100 | 119 | 70-135 | | | |
| o-Terphenyl | 54.5 | 1 500 | l 109 | 70-135 | l | | |

Lab Batch #: 709250

Sample: 501858-1-BLK / BLK

Batch:

Matrix: Solid

| Units: mg/kg SURROGATE RECOVERY STUDY | | | | | | |
|---------------------------------------|------------------------|------------------------|-----------------------|-----------------------|-------------------------|-------|
| ТРН | by SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
| 1-Chlorooctane | 16.3 | 103 | 100 | 103 | 70-135 | |
| o-Terphenyl | il. A | 53.2 | 50.0 | 106 | 70-135 | |

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

Surrogate Recovery [D] = 100 * A / B

^{***} Poor recoveries due to dilution



Project Name: Chevron Lovington Deep State

Work Order #: 293282

Project ID: 1007-023B

Lab Batch #: 709250

Sample: 501858-1-BSD / BSD

Batch: 1 Matrix: Solid

| Units: mg/kg SURROGATE RECOVERY STU | | | STUDY | | |
|-------------------------------------|------------------------|-----------------------|----------------|-------------------------|-------|
| TPH by SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags |
| Analytes | | | [D] | | |
| 1-Chlorooctane | 106 | 100 | 106 | 70-135 | |
| o-Terphenyl | 51.7 | 50.0 | 103 | 70-135 | |

Surrogate Recovery [D] = 100 * A / B

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Blank Spike Recovery

Project Name: Chevron Lovington Deep State

Work Order #: 293282

Project ID:

1007-023B

Lab Batch #: 708892

Sample: 708892-1-BKS

Matrix: Solid

Date Analyzed: 11/20/2007

Date Prepared: 11/20/2007

Analyst: IRO

| eporting Units: mg/kg Batch #: 1 BLANK/BLANK SPIKE RECOVERY ST | | | STUDY | | | |
|--|------------------------|-----------------------|--------------------------|----------------------|-------------------------|-------|
| Total Chloride by EPA 325.3 | Blank Result [A] | Spike Added [B] | Blank Spike Result | Blank Spike %R | Control Limits %R | Flags |
| Analytes | | . , | [C] | [D] | | |
| Chloride | ND | 100 | 93.6 | 94 | 75-125 | |

Lab Batch #: 708894

Sample: 708894-1-BKS

Matrix: Solid

Date Analyzed: 11/20/2007

Date Prepared: 11/20/2007

Analyst: LATCOR

Reporting Units: mg/kg

BLANK /BLANK SPIKE RECOVERY STUDY

| reporting ours. mg/kg | Daten #. | DEAME | DEALWE ST | KE KEC | OVERT | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
|-----------------------------|-----------------|----------------|----------------|----------------|-------------------|---|
| Total Chloride by EPA 325.3 | Blank Result | Spike Added | Blank Spike | Blank Spike | Control Limits | Flags |
| Analytes | [A] | [B] | Result [C] | %R [D] | %R | |
| Chloride | ND | 100 | 95.7 | 96 | 75-125 | |

Lab Batch #: 708897

Sample: 708897-1-BKS

Matrix: Solid

Date Analyzed: 11/20/2007

Date Prepared: 11/20/2007

Analyst: LATCOR

| Reporting Units: mg/kg | Batch #: 1 | BLANK/E | BLANK SPI | KE REC | OVERY S | STUDY |
|-----------------------------|------------------------|-----------------------|--------------------------|----------------------|-------------------------|-------|
| Total Chloride by EPA 325.3 | Blank Result [A] | Spike Added [B] | Blank Spike Result | Blank Spike %R | Control Limits %R | Flags |
| Analytes | ĮA; | נטן | [C] | [D] | /0K | |
| Chloride | ND | 100 | 93.6 | 94 | 75-125 | |

Lab Batch #: 708898

Sample: 708898-1-BKS

Matrix: Solid

Date Analyzed: 11/20/2007

Date Prepared: 11/20/2007

Analyst: LATCOR

| Reporting Units: mg/kg | Batch #: 1 | BLANK | BLANK SP | KE REC | COVERY | STUDY |
|-----------------------------|-----------------|----------------|----------------|----------------|-------------------|-------|
| Total Chloride by EPA 325.3 | Blank Result | Spike Added | Blank Spike | Blank Spike | Control Limits | Flags |
| Analytes | [A] | [B] | Result [C] | %R [D] | %R | |
| Chloride | ND | 100 | 93.6 | 94 | 75-125 | |

Blank Spike Recovery [D] = 100*[C]/[B]All results are based on MDL and validated for QC purposes.



BS/BSD Recoveries

Project Name: Chevron Lovington Deep State

Work Order #: 293282

Analyst: SHE

Date Prepared: 11/28/2007

Project ID: 1007-023B Date Analyzed: 11/28/2007

Lab Batch ID: 709436

Sample: 501986-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

| | | | | | | | | · · · · · · · · · · · · · · · · · · · | | | |
|-----------------------------|-------------------------------|-----------------------|---------------------------------|-----------------------------|-----------------------|---|-------------------------------|---------------------------------------|-------------------------|---------------------------|------|
| BTEX by EPA 8021B Analytes | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
| | | | | | | | | | | | |
| Benzene | ND | 0.1000 | 0.1094 | 109 | 0.1 | 0.1088 | 109 | 1 | 70-130 | 35 | |
| Toluene | ND | 0.1000 | 0.1083 | 108 | 0.1 | 0.1090 | 109 | 1 | 70-130 | 35 | |
| Ethylbenzene | ND | 0.1000 | 0.1094 | 109 | 0.1 | 0.1125 | 113 | 3 | 71-129 | 35 | |
| m,p-Xylenes | ND | 0.2000 | 0.2144 | 107 | 0.2 | 0 2208 | 110 | 3 | 70-135 | 35 | |
| o-Xylene | ND | 0.1000 | 0.1084 | 108 | 0.1 | 0.1122 | 112 | 3 | 71-133 | 35 | |

Analyst: SHE

Date Prepared: 11/28/2007

Date Analyzed: 11/29/2007

Lab Batch ID: 709491

Sample: 502014-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

| BTEX by EPA 8021B Analytes | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
|-----------------------------|-------------------------------|-----------------------|---------------------------------|-----------------------------|-----------------------|---|-------------------------------|----------|-------------------------|---------------------------|------|
| Benzene | ND | 0.1000 | 0.1039 | 104 | 0.1 | 0.1056 | 106 | 2 | 70-130 | 35 | |
| Toluene | ND | 0.1000 | 0.1056 | 106 | 0.1 | 0.1079 | 108 | 2 | 70-130 | 35 | |
| Ethylbenzene | ND | 0.1000 | 0.1165 | 117 | 0.1 | 0.1172 | 117 | ł | 71-129 | 35 | |
| m,p-Xylenes | ND | 0.2000 | 0.2323 | 116 | 0.2 | 0.2312 | 116 | 0 | 70-135 | 35 | |
| o-Xylene | ND | 0.1000 | 0.1178 | 118 | 0.1 | 0.1166 | 117 | 1 | 71-133 | 35 | |

Relative Percent Difference RPD = 200*|(D-F)/(D+F)|Blank Spike Recovery [D] = 100*(C)/[B]Blank Spike Duplicate Recovery [G] = 100*(F)/[E]All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries

Project Name: Chevron Lovington Deep State

Work Order #: 293282

Date Prepared: 11/20/2007 **Batch #:** 1

Project ID: 1007-023B

Analyst: SHE Lab Batch ID: 709250

Sample: 501858-1-BKS

007 **Date Analyzed:** 11/26/2007

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

| V | | | | | | | | | | | |
|------------------------------------|-------------------------------|----------------|--------------------------|----------------------|----------------|-----------------------------|------------------------|----------|-------------------------|---------------------------|------|
| TPH by SW8015 Mod | Blank Sample Result [A] | Spike Added | Blank Spike Result | Blank Spike %R | Spike Added | Blank Spike Duplicate | Blk. Spk Dup. %R | RPD % | Control Limits %R | Control Limits %RPD | Flag |
| Analytes | | [B] | [C] | [D] | [E] | Result [F] | [G] | | | | |
| C6-C12 Gasoline Range Hydrocarbons | ND | 1000 | 927 | 93 | 1000 | 950 | 95 | 2 | 70-135 | 35 | |
| C12-C28 Diesel Range Hydrocarbons | ND | 1000 | 876 | 88 | 1000 | 879 | 88 | 0 | 70-135 | 35 | |

Analyst: SHE

Date Prepared: 11/20/2007

Date Analyzed: 11/25/2007

Lab Batch ID: 709244

Sample: 501860-1-BKS

Batch #: 1

Matrix: Solid

| Units: mg/kg | | BLAN | K/BLANK S | SPIKE / F | BLANK S | SPIKE DUPI | ICATE 1 | RECOVI | ERY STUD | Y | |
|------------------------------------|-------------------------------|-----------------------|---------------------------------|-----------------------------|-----------------------|---|-------------------------------|----------|-------------------------|---------------------------|------|
| TPH by SW8015 Mod Analytes | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
| C6-C12 Gasoline Range Hydrocarbons | ND | 1000 | 929 | 93 | 1000 | 911 | 91 | 2 | 70-135 | 35 | |
| C12-C28 Diesel Range Hydrocarbons | ND | 1000 | 814 | 81 | 1000 | 827 | 83 | 2 | 70-135 | 35 | |

Relative Percent Difference RPD = 200*|(D-F)/(D+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries

Project Name: Chevron Lovington Deep State

Work Order #: 293282

Project ID: 1007-023B

Lab Batch ID: 709244

OC- Sample ID: 293280-001 S

Batch #:

Matrix: Soil

Date Analyzed: 11/25/2007

Date Prepared: 11/20/2007

Analyst:

SHE

Departing United malka

| Reporting Units: mg/kg | | N | IATRIX SPIK | E / MAT | RIX SPI | KE DUPLICA | TE REC | OVERY | STUDY | | |
|------------------------------------|------------------|--------------|-------------------------|-----------|--------------|----------------------------|----------------|-------|-------------------|-------------------|------|
| TPH by SW8015 Mod | Parent Sample | Spike | Spiked Sample Result | Sample | | Duplicate Spiked Sample | Spiked Dup. | RPD | Control Limits | Control Limits | Flag |
| Analytes | Result [A] | Added [B] | [C] | %R [D] | Added [E] | Result [F] | %R [G] | % | %R | %RPD | |
| C6-C12 Gasoline Range Hydrocarbons | ND | 1110 | 1070 | 96 | 1110 | 1140 | 103 | 7 | 70-135 | 35 | |
| C12-C28 Diesel Range Hydrocarbons | ND | 1110 | 1010 | 91 | 1110 | 1080 | 97 | 6 | 70-135 | 35 | |

Lab Batch ID: 709250

QC- Sample ID: 293282-031 S

Batch #:

Matrix: Soil

Date Analyzed: 11/26/2007

Date Prepared: 11/20/2007

Analyst: SHE

1

| Reporting Units: mg/kg | MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY | | | | | | | | | | |
|------------------------------------|--|--------------|-------------------------|-----------|--------------|----------------------------|----------------|-----|-------------------|-------------------|------|
| TPH by SW8015 Mod | Parent Sample | Spike | Spiked Sample Result | Sample | - 1 | Duplicate Spiked Sample | Spiked Dup. | RPD | Control Limits | Control Limits | Flag |
| Analytes | Result [A] | Added [B] | [C] | %R [D] | Added [E] | Result [F] | %R [G] | % | %R | %RPD | |
| C6-C12 Gasoline Range Hydrocarbons | ND | 1130 | 1000 | 88 | 1130 | 1040 | 92 | 4 | 70-135 | 35 | |
| C12-C28 Diesel Range Hydrocarbons | 86.6 | 1130 | 949 | 76 | 1130 | 963 | 78 | 3 | 70-135 | 35 | |

Lab Batch ID: 708892

QC-Sample ID: 293280-017 S

Batch #:

Matrix: Soil

Date Analyzed: 11/20/2007

Date Prepared: 11/20/2007

Analyst: IRO

| Reporting Units: mg/kg | | N | IATRIX SPIK | E / MAT | RIX SPI | KE DUPLICA | TE REC | OVERY | STUDY | | |
|-----------------------------|------------------|--------------|-------------------------|-----------|--------------|----------------------------|-----------|-------|-------------------|-------------------|------|
| Total Chloride by EPA 325.3 | Parent Sample | Spike | Spiked Sample Result | Sample | Spike | Duplicate Spiked Sample | | RPD | Control Limits | Control Limits | Flag |
| Analytes | Result [A] | Added [B] | [C] | %R [D] | Added [E] | Result [F] | %R [G] | % | %R | %RPD | |
| Chloride | 128 | 1000 | 1060 | 93 | 1000 | 1110 | 98 | 5 | 75-125 | 30 | |



Form 3 - MS / MSD Recoveries

Project Name: Chevron Lovington Deep State

Work Order #: 293282

Project ID: 1007-023B

Lab Batch ID: 708894

QC-Sample ID: 293282-016 S

Batch #:

Matrix: Soil

Date Analyzed: 11/20/2007

Total Chloride by EPA 325.3

Analytes

Date Prepared: 11/20/2007

Parent

Sample Result

[A]

6080

Analyst: LATCOR

Reporting Units: mg/kg

| MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY | | | | | | | | | | | | | |
|--|--------------------------------|-------------------------------|-----------------------|--|-----------------------------|----------|-------------------------|---------------------------|------|--|--|--|--|
| Spike Added [B] | Spiked Sample Result [C] | Spiked Sample %R [D] | Spike Added [E] | Duplicate Spiked Sample Result [F] | Spiked Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag | | | | |
| 10600 | 16000 | 94 | 10600 | 15300 | 87 | 8 | 75-125 | 30 | | | | | |

Lab Batch ID: 708897

QC- Sample ID: 293282-037 S

Batch #:

Matrix: Soil

Date Analyzed: 11/20/2007

Date Prepared: 11/20/2007

Analyst: LATCOR

Paparting Unite: mg/kg

Chloride

| Reporting Units: mg/kg | } | MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY | | | | | | | | | | |
|-----------------------------|------------------|--|-------------------------|-----------|--------------|----------------------------|----------------|-----|-------------------|-------------------|------|--|
| Total Chloride by EPA 325.3 | Parent Sample | Spike | Spiked Sample Result | Sample | | Duplicate Spiked Sample | Spiked Dup. | RPD | Control Limits | Control Limits | Flag | |
| Analytes | Result [A] | Added [B] | [C] | %R [D] | Added [E] | Result [F] | %R [G] | % | %R | %RPD | | |
| Chloride | 5060 | 10600 | 16200 | 105 | 10600 | 15600 | 99 | 6 | 75-125 | 30 | | |

Lab Batch ID: 708898

QC- Sample ID: 293282-059 S

Batch #:

Matrix: Soil

Date Analyzed: 11/20/2007

Date Prepared: 11/20/2007

Analyst: LATCOR

| Reporting Units: mg/kg | | M | IATRIX SPIK | E / MAT | RIX SPI | KE DUPLICA | TE REC | OVERY | STUDY | | |
|-----------------------------|------------------|--------------|-------------------------|-----------|--------------|----------------------------|-----------|-------|-------------------|-------------------|------|
| Total Chloride by EPA 325.3 | Parent Sample | Spike | Spiked Sample Result | Sample | Spike | Duplicate Spiked Sample | • | RPD | Control Limits | Control Limits | Flag |
| Analytes | Result [A] | Added [B] | [C] | %R [D] | Added [E] | Result [F] | %R [G] | % | %R | %RPD | |
| Chloride | 32.9 | 1030 | 1040 | 98 | 1030 | 1060 | 100 | 2 | 75-125 | 30 | |



Sample Duplicate Recovery

Project Name: Chevron Lovington Deep State

Work Order #: 293282

Lab Batch #: 708848

11/19/2007

Project ID: 1007-023B

Date Analyzed: 11/19/2007

Date Prepared:

Analyst: RBA

QC-Sample ID: 293280-022 D

Batch #:

Matrix: Soil

Reporting Units: %

| SAMPLE / | SAMPLE | DUPLICATE | RECOVERY |
|----------|--------|-----------|----------|
| D 10 | Comple | Co | menal |

| Percent Moisture Analyte | | Sample Duplicate Result [B] | RPD | Control Limits %RPD | Flag |
|---------------------------|------|--------------------------------------|-----|---------------------------|------|
| Analyte | | <u> </u> | | | |
| Percent Moisture | 2.62 | 2.99 | 13 | 20 | |

Lab Batch #: 708850

Date Analyzed: 11/19/2007

Date Prepared: 11/19/2007

Analyst: RBA

QC- Sample ID: 293282-037 D

Batch #:

Matrix: Soil

Reporting Units: %

| SAMPLE / SAMPLE 1 | DUPLICATE | RECOVERY |
|-------------------|-----------|----------|

| Percent Moisture Analyte Percent Moisture | Parent Sample Result [A] | Sample Duplicate Result [B] | RPD | Control Limits %RPD | Flag |
|---|--------------------------------|--------------------------------------|-----|---------------------------|------|
| Percent Moisture | 5.47 | 5.79 | 6 | 20 | |

Page 1 of 7

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East Odessa, Texas 79765 Phone. 432-563-1800 Fax: 432-563-1713

| Project Manager Cindy Crain | nager Cindy Crain | | | | | | | | | - | P | rojec | t Na | me. | | <u></u> | hevi | ron | Lovi | ingto | n De | ер 5 | tate | <u> </u> | _ | | | | | |
|--------------------------------|-------------------|-----------------|--------|-----------------|--------------|--------------|-----------------------|-------|-----------|-------|----------|-------|-----------|-----------------|------------------|-----------------|-------|---------|----------------|----------------------------|-----------------|--------------|---------------|------------------------------|------|-------|--|----------|-------------------------|----------|
| Company Name Ocotillo Enviro | onmental, LL | c | | | _ | | | | | | | | | | - | | P | rojec | :t #* | | | | | 100 | 07-0 | 23B | | | | |
| Company Address PO Box 1816 | | | | | | | | | | | | | | | | | Proj | ect L | .oc | | | Sec ! | 5, T1 | 17S. | R36 | , Lea | Co | NM | | _ |
| City/State/Zip Hobbs, NM 8 | 8241 | | | | | | | | | | | | | | | | | P | o #· | | | _ (| | | | | | | | |
| Telephone No (505) 441-724 | 4 _ | | | | Fax No | | (432 | 2) 27 | 2-03 | 104 | | | | | | Repo | nt Fo | rma | t: | Ø: | Stand | dard | 1 | | TRE | ₹P | | NPI | DES | |
| Sampler Signature | 1 | | | | e-mail: | • | | | | | @ a: | nia | ıl cc | וחו | - | | | | | ~ | | | | _ | | | _ | • | | |
| | | | | | | | <u> </u> | | | | | | en an | | | | F | | | | | Anel | yze I | or | | _ | | | П | |
| (lab use only) | | | | | | | ₹1 | | | | | | | | | | | | | TOT | AL | \pm | t | 土 | | 1 | | 1 | 72 hrs | |
| ORDER# 293262 | | | | | | П | | ᅧ | reser | vatio | - & # | of Co | ntaine | F18 | | atrix | 80158 | 8 | | | 1 | 8 E | | 8260 | | | | | 1 | _ |
| <u> </u> | | | | • | | | 40,0 | . 1 | İ | | | 1 | | | St.=tstudge | 8-SolvBold | 1 | 15 | Ω | (£ | 1 | 2 | | BTEX 6021 15030 or BTEX 8260 | | | 1 | | RUSH TAT (Pre-Schadule) | |
| (Ajvo ean | | leginning Depth | 5 | 8 | <u> </u> | | fotal # of Containers | | | - | | | | 2 | ž. | | 4181 | / | g Na. K) | AnionS (C) 804 Alkatinity) | ر د | Voletiles | | 030 or | | | | | g , | _ |
| # (ep) # | | <u>E</u> | Depth | amp | dimag | 2 | Com | | - [| ļ | | İ | | Specia | 5 V/s | motor | 1 - | TX 1005 | 3 | Â | 0 3 | | seks | Å | | | | | AT. | 2 |
| 1 60 1 | | | Ending | Date Sampled | lime Sampled | eld Fillered | * 75 | 82 | Q I | ₽ | H,50. | F S | None None | Other (Specify) | DW=Ddnking Water | OW - Groundware | TPH * | | Cations (Ca Mg | le l | SAR / ESP / CEC | Volgtiles | Sernivolaties | ¥ X | , | NON | | | RUSH TAT (Pre | 9100 |
| 3 FIELD CODE ∞\ 3H-1 (0-2') | | Ø O | 7 | 11/14/107 | 0930 | <u>.</u> | P. | - | Ī | - | <u> </u> | 2 2 | z z | 10 | ð | 5 1 | ╁ | = | 3 | ₹ | æ <u>:</u> | 18 | 8 | ₩ | ğ | ž | ╁ | Н | <u> </u> | <u>.</u> |
| COZ " (5·7·) | | 5 | 7 | "//4/10/ | 0942 | - | \dashv | + | + | + | + | + | + | + | ┢ | | ╁ | + | Н | + | + | + | + | ⇈ | Н | + | ╁ | - | + | _ |
| (10-12) | | 10 | 12 | ., | 0950 | | \exists | 1 | + | + | 7 | T | + | T | Г | | Τź | | | 7 | + | + | † | + | T | 1 | T | | \vdash | ٦ |
| 001 " (15-17) | | 15 | 17 | ¥ | 0458 | | | 7 | 7 | 7 | 7 | T | 1 | T | | | 1 | 1 | П | 7 | | \top | T | | П | | | | \sqcap | _ |
| 005 (20-22) | | 20 | 22 | ۲ | 1005 | | | | | | | | | | | | T | | | | | | | | | | | | | _ |
| ide " (25.27.) | | 25 | 27 | ų | 1013 | | | | $oxed{I}$ | | | | | | | | L | | | | | I | | | | | | | | _ |
| (30.32) | | 30 | 32 | 11 | 1020 | | Ц | _ | 4 | _ | \perp | 1 | 1 | 1 | L | | L | | Ц | _ | \perp | \perp | \perp | 1 | Ц | 4 | 4 | | Ц | _ |
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Company Name Occillio Environmental, LLC

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Project Manager: Cindy Crain

Company Address PO Box 1816

Phone: 432-563-1800

Sec 5, T17S, R36E, Lea Co , NM

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Odessa, Texas 79765 Fax: 432-563-1713 Project Name: Chevron Lovington Deep State 1007-023B

Project Loc.

City/State/Zip Hobbs, NM 88241 Report Format: Standard TRRP

12600 West I-20 East

NPDES Fax No (432) 272-0304 Telephone No Sampler Signature cindy crain@gmail.com Analyze For (lab use only) ORDER # 293282 Preservation & # of Containers FIELD CODE 11/14/07 BH-2 (15-17.) 15 17 1058 011 20 . 22 20 22 1102 012 (25-27) 25 27 1259 30 32 1304 30 - 32) 014

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Page 3 of 7 CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

CHAIN OF COSTODY RECORD AND ANALTSIS REQUEST
12600 West I-20 East Phone: 432-563-1800
Odessa, Texas 79765 Fax. 432-563-1713

| | | | | | | | | | | | | • | | | | | | | | | | | | | | | | | | | | | |
|---------------|--------------------|---------------|--|-----------------------|--------------|------------------|--------------|---------------|----------------------|----------|-----------|------|---------|---------|-----------|-----------------|------------------|------------------|-------------------|-------------|----------------|--------------------------|-----------------|-----------------------------|-----------|---|-------------------------|--------|---------|-----------|-----------------|-------------------------|--------------|
| | Project Manager | Cindy Crain | | | | | | | | | | | | | | | | P | ojeç | i Na | me . | | | Che | vror | ı Lo | ving | gton | Dec | ep S | tate | | _ |
| | Company Name | Ocatillo Envi | ronmental LL | .c | | | | | | | | | | | | | | | Pr | olec | t #. | | | | | _1 | 007 | -023 | 3B_ | | | | |
| | Company Address: | PO Box 1816 | 8 | | | | | | | | | | | | | | | | Proje | ect L | oc: | | | Sec | 5, | T175 | 3, R | 38E | Lea | Co , I | NM | | |
| | City/State/Zip | Hobbs, NM | 88241 | | | | | | | | | | | | | | | PC |) # . | | | | | | | | | | | | _ | | |
| | Telephone No. | (505) 441-72 | :4,4 | Fax No (432) 272-0304 | | | | | | | | | | Repo | r! Fo | rmai | | À | Standard TRRP NPC | | | | | | | | NPC | ES | | | | | |
| | Sampler Signature: | : 7 | dis | sai | 2 | | e-mail | | CIF | ndv | Cra | | ପ୍ରପ୍ର | nai | l co | m | | | | | | • | | | | | _ | | | | | | |
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| Special I | nstructions | | | | | | | | | | | | | | | _ | | | | | | | | | | nts: ntac | | | | O | | 4 | |
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CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Phone: 432-563-1800 Fax. 432-563-1713

12600 West I-20 East Phot Odessa, Texas 79765 Fax

Project Manager Cindy Crain Project Name: Chevron Lovington Deep State Company Name Ocotilo Environmental, LLC 1007-023B Company Address: PO Box 1816 Sec 5, T17S R36E, Lea Co , NM City/State/Zip: Hobbs NM 88241 Report Format: #Standard Telephone No TRRP NPDES (505) 441-7244 (432) 272-0304 Fax No Sampler Signature cindy crain@gmail com Analyze For (lab use only) Preservation & # of Containers Matrix 293282 TOTAL ORDER #: Jeginning Depth Inding Depth FIELD CODE 031 0 - 2 - 3 0 11/14/07 1428 5-7) 5 7 032 1431 1440 10-12 10 12 033 034 15-17 15 17 1444 UBS 20.22 20 22 1450 BH-7 0 - 2 -115107 0925 036 037 5-7.) 5 7 0931 10 - 12 038 10 12 0937 039 (15-17) 15/17 0947 20-22 20 22 040 0953 Special Instructions. Laboratory Comments -68€ Sample Containers Intact? z666z VOCs Free of Headspace? Custody seals on contamer(s)

Custody seals on contamer(s) 11/17/07 1127 Š Sample Hand Delivered
by Sampler/Client Rep ?
by Courier? UPS DHL Received by FedEx Lone Star Date Received by ELOT Date Relinquished by emperature Upon Receipt 40 °C

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Page 5 of 7

Phone. 432-563-1800

Fax: 432-563-1713

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East

Odessa, Texas 79765

Chevron Lovington Deep State Project Manager Cindy Crain 1007-023B Company Name Ocotillo Environmental, LLC Company Address: PO Box 1816 Project Loc: Sec 5, T17S, R36E, Lea Co , NM City/State/Zip. Hobbs, NM 88241 Report Format Telephone No (505) 441-7244 Fax No: (432) 272-0304 TRRP NPDES Sampler Signature: cindy crain@gmail.com Analyze For: TCLP TOTAL 293282 ORDER#. Preservation & # of Containers Matrix Iding Depth FIELD CODE BH-7 (25-27) 11/15/07 041 25 27 1002 OUZ 30-32 30 32 1010 0 2 BH-8 (o-2·) 1020 043 5 7 5.71 1029 CHU 10 - 12 10 12 1032 05 15 17 Ollo (15-17) 1036 20 22 20 - 22 1040 047 25 27 048 25-27 1047 OYA 02 1, (0-2.) BH-9 1100 050 57 (5.7) 1106 . . Special Instructions 38>> Sample Containers Intact? VOCs Free of Headspace? z888z Labels on container(s) id enlid Custody seals on container(s) Custody seals on cooler(s) 1/11/07 1127 Sample Hand Delivered by Sample Client Rep ? by Courier? UPS DHL Date FedEx Lone Ster Date Relinquished by Received by ELOT Temperature Upon Receipt 4.0 ℃

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Page 6 of 7

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East Odessa, Texas 79765 Phone: 432-563-1800 Fax: 432-563-1713

| | Project Manager: | Cindy Crein | | | | | | | | | | | | | | | - | P | rajec | t Na | arne | | . (| Che | vro | n L | OVI | igto | n D | еер | Stat | e | |
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| | Company Name | Ocotillo Enviro | onmental, LL | ¢ | | | | | | | | | | | | | _ | | Đ | roje | ct#. | _ | | | | | 100 | 7-02 | 23B | | | | _ |
| | Company Address | PO Box 1816 | | | | | | | | | | | | | | | _ | | Pro | ect | Loc: | | | Sec | . 5, | T17 | 'S, F | R36E | . Le | a Co | , NM | ! | |
| | City/State/Zip | Hobbs, NM B | 8241 | | | | | | | | | | | | | | _ | | | P | O#: | _ | | | | _ | | | | | | | _ |
| | Telephone No | (505) 441-724 | 4 | - | | | Fax No | | (43 | 2) 2 | 72-0 | 304 | | | | | | Repo | ort Fo | ıma | st: | 4 | Star | dan | d | | | TRR | P | ſ | □ NF | PDE: | S |
| | Sampler Signature: | | din (| مدر | in | | e-mail. | | CII | ndy | cr | aine | @q | ma | ıl cc | נחו | | | _ | | | | | | | | | | | | | | _ |
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| DER | #: 20132-8 | | | | | Ψ | | | <u>ب</u> الج | С | Prese | rvalk | n & # | of Co | ontaine | ers | 1 | vlatrix | B015B | Т | | | | 8 | | | 6260 | - } | 1 | 1 | | 8 | L |
| LAB # (lab use only) | FIE | LD CODE | | Beginning Depth | Ending Depth | Date Sampled | Time Sampled | ield Filtered | Total # of Contamers 455 | £7 | HNO, | HC. | H,50. | NBOH NBOH | Neg-2-0-1 | Other (Specify) | DW-Drawing Water St.: Sludge | Mer 5-804 | TPH 418 1 (8015M) 80 | TX 1605 TX 10 | ns (Ca, Mg, Na, K) | Among (CL) SO4 Alkalinity) | SAR / ESP / CEC | Matels As Ag Ba Cd Cr Pb Hg | Votatries | Semvolatiles | X 80218/5030 or BTEX | RCI | NORM | | | RUSH TAT (Pre-Schedule) 24, | Standard TAT |
| 5 | | - 12') | | 10 | 12 | 11/15/07 | 1115 | - | - | F | | | \exists | + | + | + | † | | 17 | 7 | ╁ | - | ٦ | 1 | 1 | " | - | - | - | 十 | + | ۴ | 15 |
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CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East Odessa, Texas 79765 Phone. 432-563-1800 Fax 432-563-1713

| | Project Manager Cindy Crain | | | | | · | | | | | | | | | | _ | P | rojec | t Na | me: | | | Che | evro | n L | ovir | ngto | n D | еер | Stat | e | |
|---------------------|------------------------------|------------------|-----------------|--------------|----------------|--------------|--------------|---------------------------|------|-------|--------|--------|---------|---------|------------------|-----------------------------|-----------|--------------------------|----------|----------------|---------------------------|-----------------|--------------------------------|--------------|---------------------|------------------------------|-----------|-------------|---------|-----------|-------------------------------|--------------|
| | Company Name Ocotilio Envir | onmental, LL | <u>c</u> | | | ~ | | | | | | | | | | - | | P | roje | çt #: | | | | | | 100 | 7-02 | 23 <u>B</u> | | | | |
| | Company Address. PO Box 1818 | | | | | | | | | | | | | | | _ | | Proj | ect | Loc: | _ | | Se | c 5. | T17 | 'S, F | ₹36£ | <u>Le</u> | a Co | , NN | 1 | |
| | City/State/Zip. Hobbs NM 8 | 8241 | | | | | | | | | | | | | | _ | | | P | O #: | | | | | | | | | | | | |
| | Telephone No (505) 441-724 | 14 | | | | Fax No: | | (43 | 2) 2 | 72-0 | 304 | | | | | | Repo | rt Fo | ma | ıt: | À | Sta | nda | rd | | | TRE | ₹P | | □ NF | PDE: | 3 |
| | Sampler Signature | ide | <u> </u> | zin. | . | e-mail. | | CII | ndy | cr | ain | @9 | mai | l co | <u>m</u> . | | | _ | | | | | | _ | | | | | | | | |
| (lab use o | | | | | | | | _ | | | | | | | | | | E | | | | CLP. | Ar | τaly: | e F | or. | \Box | \neg | op | \top | ١, | |
| ORDER | #: 293282 | - i | | | | | | 35.5 | | Prese | rvatio | on & f | of Co | atans | #T5 | l N | latrix | 8 | T | T . | ŤŌ | TAL | S. | H | | 0 | | 1 | | | 45, 72 hrs | l |
| AB # (lab use only) | FIELD CODE | • | Beginning Depth | Ending Depth | Date Sampled | Time Sampled | wid Fallered | Total # of Containers 4c. | 8 | нио, | HC | н,≤0, | NaOH | None | Other (Specify) | DW-Drilling Water SL-Sludge | Ner S=Sok | TPH 418 1 (\$013N) 80158 | 1 X 10 | IS (Ca, Mg Na, | Anion (C) 504 Alkalinity) | SAR / ESP / CEC | Metaks: As Ag Ba Cd Gr Pb Hg S | Votatiles | Semvolatiles | 87LX 80218/5030 or BTEX 8260 | RC) | N.O R.M. | | | RUSH TAT (Pre-Schedule) 24, 4 | Standard TAT |
| 061 | BH-11 (15.17°) | | 15 | 17 | "/16/07 | 1246 | - | <u> </u> | | П | 7 | | 1 | 1 | T | Ť | <u> </u> | + | † | J | - | Ť | * | | Ÿ. | | ٦ | Ť | 十 | + | ۴ | ľ |
| 062 | BH-12 (0-2) | | О | 2 | 11 | 1256 | | | | | | | | | Τ | Г | | 1) | | Г | | | | | | | П | | I | | L | |
| 063 | " (5.7) | | 50 | 7 | 11 | 1300 | | | | | | | | Ι | I | | | 7) | | | | | | | | | П | П | I | I | Γ | |
| ani | " (10-12') | | 10 | 12 | " | 1310 | | | | | | | | | | | | Ι | | | | | | | | | \square | | \perp | | ${ m I}$ | |
| Ous | 1 (15-17) | | 15 | 17 | " | 1314 | | | | | | | | | L | L | | | L | | | | | | | | | | | | L | |
| Ou. | BH-13 (0-2') | | <u>_p</u> | 2 | 11 | 1318 | | | L | | | | | | | L | | $\perp \lambda$ | 1 | L | | | | | | \Box | | \perp | \perp | \perp | L | |
| 061 | " (5-7') | | 5 | 7 | '4 | 1322 | | L | L | | | | \perp | | | L | | <u> </u> | | L | | | | | | | \Box | \dashv | \perp | \perp | L | |
| છે. | " (10-12.) | | 10 | 12 | и | 1328 | L, | L | L | | | | \perp | | 1_ | L | | \perp | | L | | | | | | | Ы | _ | | ᆚ | L | Ľ |
| 069 | " (15-17) | | 15 | 17 | " | 1335 | | L | L | | | | 1 | \perp | ┖ | L | | | <u> </u> | L | | Ш | Ц | | _ | | Ш | _ | \perp | \perp | L | Ш |
| | | | | | | | L | L | L | | | | | 1 | | | | L | | L | | | | | | | Ш | \perp | 丄 | 丄 | L | |
| , | nstructions: | | | | | | | | | | | | | | | | | | | Sat VO | mple Cs f | Col | ntair of i | ners lead | inta spa | ct? ce? | | | 8 | 3 | N | |
| Relinqueh | do (san | Date 11/17/07 | 11. | | Received by | | | | | | | | | | | ate | | Tin | | Cu | stod | y se | als (| on co | oolei | r(s) |) (5) | 1.1 | Y | • | 203 (B) 52 | , |
| Relinquish | , | Date | | me | Received by | | | | | | | | | | | ate | | Tin | | Sas | npie by (| Han | oles)(| Cher | ered I Re UPS | pγ | DHL | . 1 | Y | > × Lo | N | |
| Relinquish | ed by | Date | Ti | me | Received by EL | ОТ | | | | | | | | | Ö. | ate | | Tin | ne | Ter | npe | ratur | e Ui | pon | Rec | erpt | | | | Ч, | O'c | |

| | Variance/ Corrective Action Re | port- Sampl | e Log-Ir | n | | | | |
|--|---|---------------------------------------|----------|---------------------------------------|-----------------|--|--|--|
| ient | Oco+1110 | | | | | | | |
| ate/ Time | 11-17-07@1127 | | | | | | | |
| ab ID# | | | | | | | | |
| | 2932BZ JMF | | | | | | | |
| tials | JMF | | | | | | | |
| | Sample Receipt | Checklist | | | | | | |
| | | · · · · · · · · · · · · · · · · · · · | | · | Client Initials | | | |
| | ature of container/ cooler? | ₹es . | No | 4.0 °C | 1 | | | |
| | container in good condition? | (Yes) | No | | | | | |
| | Seals intact on shipping container/ cooler? | Yes | No | Not Present | | | | |
| | Seals intact on sample bottles/ container? | Yes | No | Not Present | | | | |
| | Custody present? | Yes | No | | | | | |
| Sample | Instructions complete of Chain of Custody? | Yes⊃ | No | <u> </u> | | | | |
| | f Custody signed when relinquished/ received? | (Yeso | No | | | | | |
| | f Custody agrees with sample label(s)? | Yes | No | (ID written on Cont / Cid | <u> </u> | | | |
| | er label(s) legible and intact? | Yes | No | Mot Applicable | | | | |
| | matrix/ properties agree with Chain of Custody? | (es) | No_ | | | | | |
| | ners supplied by ELOT? | Yes | No | <u> </u> | 1 | | | |
| | es in proper container/ bottle? | (Yes) | No | See Below | | | | |
| | es properly preserved? | (es) | No | See Below | | | | |
| | bottles intact? | (Yes) | No | | | | | |
| | vations documented on Chain of Custody? | (Yes) | No | | | | | |
| | ners documented on Chain of Custody? | (Tes) | No | <u> </u> | | | | |
| | ent sample amount for indicated test(s)? | Yes | No | See Below | | | | |
| 8 All sam | ples received within sufficient hold time? | (YES) | No | See Below | | | | |
| | ntract of sample(s)? | Yes | No | Not Applicable | | | | |
| 0 VOC s | amples have zero headspace? | /es | No | Not Applicable | | | | |
| Variance Documentation Contact: Contacted by: Date/ Time: | | | | | | | | |
| egarding | | | ···· | | · | | | |
| orrective A | ction Taken | | ·· | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | · · · · · · · · · · · · · · · · · · · | | | | |

See attached e-mail/ fax
Cilent understands and would like to proceed with analysis

Cooling process had begun shortly after sampling event

Check all that Apply.

C141 DOCUMENTATION

District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
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

Form C-141 Revised October 10, 2003

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

| Release | Notification | and | Corrective | Action | |
|---------|--------------|-----|------------|--------|--|
| | | | | | |

| | OPERATOR (X Initial Report) Final Report | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|
| Name of Company Chevron Midcontinent LP | Contact Larry Ridenour | | | | | | | | | | |
| Address HCR 60 Box 423 Lovington, N.M. 88260 | Telephone No. 505-396-4414 X 102 | | | | | | | | | | |
| Facility Name Lovington Deep State | Facility Type Water transfer line | | | | | | | | | | |
| Surface Owner State Mineral Owner | er State of NM Lease No. B-4704 | | | | | | | | | | |
| LOCATION OF RELEASE | | | | | | | | | | | |
| Unit Letter Section Township Range Feet from the | Feet from the County | | | | | | | | | | |
| | uth Line 115 East Line Lea | | | | | | | | | | |
| Latitude N 32 deg 51 min 47.53 sec Longitude W 103 deg 23 min 8.11 sec NATURE OF RELEASE API #3002531451 | | | | | | | | | | | |
| Type of Release Produced water with some oil | Volume of Release 20 BW - 2BO Volume Recovered 13 BW - 1 BO | | | | | | | | | | |
| Source of Release water transfer line | Date and Hour of Occurrence Date and Hour of Discovery | | | | | | | | | | |
| Source of Adjusted Visited Marie Info | 10/2/07 ?? 10/2/07 9:00 am | | | | | | | | | | |
| Was Immediate Notice Given? | If YES, To Whom? | | | | | | | | | | |
| ☐ Yes ☐ No ☐ Not Requir | | | | | | | | | | | |
| By Whom? Larry Ridenour | Date and Hour 10/2/2007 4:30 P.M. 3450 / 8970 | | | | | | | | | | |
| 'Was a Watercourse Reached? | If YES, Volume Impacting the Watercours. | | | | | | | | | | |
| ☐ Yes ☒ No | If YES, Volume Impacting the Watercourse | | | | | | | | | | |
| If a Watercourse was Impacted, Describe Fully.* | S Received 5 | | | | | | | | | | |
| the first the second second second second | S Received 5 | | | | | | | | | | |
| • | Hopps 66 | | | | | | | | | | |
| | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | | | | | | | | | |
| Describe Cause of Problem and Remedial Action Taken.* The location and API # given are for West Lovington Unit #86 which is the nearest well. The GPS coordinates are for the actual location of the spill. The spill is located approximately 2/10 mile north of WLU 86. The leak was from a water transfer line that conducts fluid from the Lovington Deep State tank battery to the West Lovington Unit injection station. | | | | | | | | | | | |
| | | | | | | | | | | | |
| Chlorides 35,000 | | | | | | | | | | | |
| | • | | | | | | | | | | |
| Describe Area Affected and Cleanup Action Taken.* | | | | | | | | | | | |
| Fluid soaked in ground. 60° x 60° area around spill and then 8° x 150° | area and 8' x 50' area where fluid traveled down ruts in road. Standing fluid was | | | | | | | | | | |
| one call and have removed top approximately one foot of soil. They w | d site over to Ocotillo Environmental for remediation. They performed emergency ill do a survey of the contamination and submit a plan to the OCD for approval. | | | | | | | | | | |
| indy w | in the about the discontinuation and submit a plant to the OCD for approval. | | | | | | | | | | |
| The second secon | | | | | | | | | | | |
| I hereby certify that the information given above is true and complete t | o the best of my knowledge and understand that pursuant to NMOCD rules and e 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 remed | liate contamination that pose a threat to ground water, surface water, human health | | | | | | | | | | |
| or the environment. In addition, NMOCD acceptance of a C-141 report | t does not relieve the operator of responsibility for compliance with any other | | | | | | | | | | |
| federal, state, or local laws and/or regulations. | | | | | | | | | | | |
| $\sqrt{\chi^2}$ | OIL CONSERVATION DIVISION | | | | | | | | | | |
| Signature: Oy U (in) | Charles | | | | | | | | | | |
| Printed Name: Larry Ridenour | Approved by District Engineer ONMENTAL ENGINEER | | | | | | | | | | |
| Title: Operations Representative | Approval Date: 10.4.07 Expiration Date: 12.10.07 | | | | | | | | | | |
| É-mail AddressLRidenour@chevron.com | Conditions of Approval: | | | | | | | | | | |
| Date: 10/4/07 Phone: 396-4414 X 102 | SUBALT PLAN OR FINAL BY | | | | | | | | | | |