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

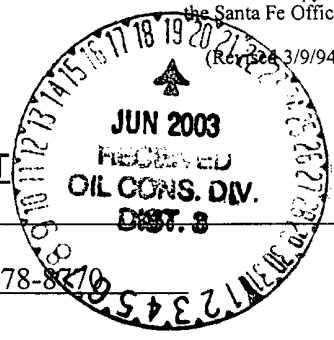
State of New Mexico
Energy Minerals and Natural Resources

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

OK

Submit 1 copy to appropriate District Office and 1 copy to the Santa Fe Office

(Revised 3/9/94)




# PIT REMEDIATION AND CLOSURE REPORT

30-039-23604

Operator: Chaparral Energy Telephone: (405) 478-8770

Address: 701 Cedar Lake Blvd, Oklahoma City, Oklahoma 73114

Facility Or: Oso Canyon C-1
Well Name

Location: Unit or Qtr/Qtr Sec "F" Sec 13 T ~~29~~ 24 N R 2 W County Rio Arriba

Pit Type: Separator X Dehydrator _____ Other _____

Land Type: BLM _____, State _____, Fee X Other _____

Pit Location: Pit dimmensions: length 15-ft, width 15-ft, depth 3-ft
(Attach diagram)

Reference: wellhead X, other _____

Footage from reference: 78

Direction from reference: 85 Degrees X East North X
of
West South

| | | |
|---|---|---|
| Depth To Ground Water (Vertical distance from contaminants to seasonal high water elevation of ground water.) | Less than 50 feet<br>50 feet to 99 feet<br>Greater than 100 feet | (20 points)<br>(10 points)<br>( 0 points) 0 |
| Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources.) | Yes<br>No | (20 points)<br>( 0 points) 0 |
| Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches.) | Less than 200 feet<br>200 feet to 1000 feet<br>Greater than 1000 feet | (20 points)<br>(10 points)<br>( 0 points) 0 |

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: June 6,2003 Date completed: June 6,2003

Remediation Method: (Check all appropriate sections.) Excavation _____ Approx. cubic yards 0

Landfarmed N/A Insitu Bioremediation N/A

Other _____

Remediation Location: (i.e. landfarmed onsite, name and location of offsite facility) Onsite _____ Offsite _____

General Description of Remedial Action: A soil sample was extracted at 6-feet below ground level (3-ft below Pit bottom). The sample was analyzed for GRO/DRO and BTEX analysis. All analisis were within BLM and NMOCD requirements

Ground Water Encountered: No X Yes _____ Depth _____

Final Pit: Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location Cenetr of pit 6-feet below surface level (3-feet below pit bottom)

Sample depth 6-feet

Sample Date 6/6/03 Sample time 11:46

Sample Results

| | |
|---|---|
| Benzene(ppm) | ND |
| Total BTEX(ppm) | 0.550 |
| Field headspace(ppm) | 248 |
| TPH | 304 ppm |

Ground Water Sample: Yes _____ No X (If yes, attach sample results)

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Date 6/17/03

Signature _____ Printed Name Frank McDonald and Title Sr. Environmental Specialist

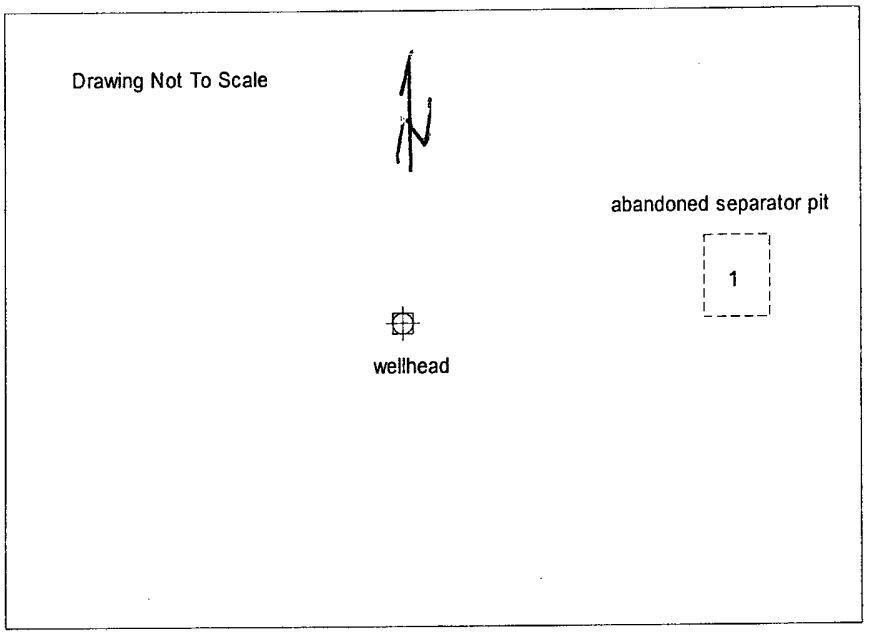
Client: Chapaarral Energy

Date Began: 6/6/03 Date End:6/6/03

| | |
|---|---|
| **Location:** | Oso Canyon C-1 |
| Footages: | 1650' FNL & 1650' FWL |
| Unit Letter: | F Sec. 13 Twn. ~~29N~~ 24N Rng 2W |
| Latitude: | Longitude: |
| Lease Num. | NM-40636 Land Type: Fee Surface |
| **Pit Type:** | Separator |
| **Pit Reference** | |
| Reference: | From wellhead Footage: Approx. 78-ft |
| Direction: | (N) or S 85 Degrees (E) or W |
| Initial size: | 15' x 15' x 3' deep |
| Final Size: | 15' x 15' x 3' deep |
| **Total Cubic Yards:** | 0 |

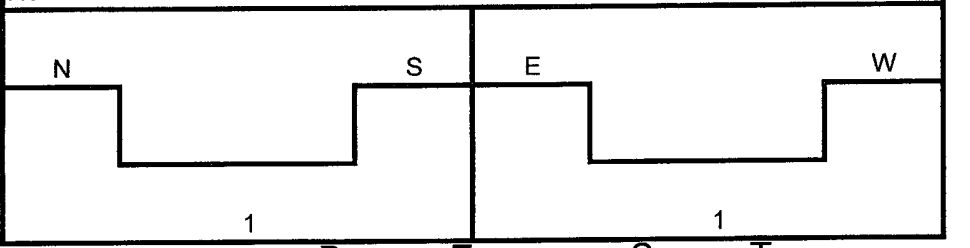
| | |
|---|---|
| **Distanes from (ft):** | |
| Groundwater: | >100 ft |
| Wellhead Protection Area: | No |
| Nearest Surface Water: | >1000 ft |
| Distance to ephemeral stream: | |
| (Navajo/Jicarilla only) | |
| **Ranking Score (points):** | **0** |

Site Diagram:




| Sample ID | Description | | OVM Reading |
|---|---|---|---|
| 1 | center pit @ 6-ft | | 248 ppm |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |

Not to Scale




Comments: Soil is light brown, silty clay. No hydrocarbon odor or staining

Prepared by: F McDonald

Biosphere Environmental Sciences Technologies

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

# EPA METHOD 8015 Modified
# Nonhalogenated Volatile Organics
# Total Petroleum Hydrocarbons

| | | | |
|---|---|---|---|
| Client: | B.E.S.T, LLC. | Project #: | 02023-001 |
| Sample ID: | Ctr Pit @ 6 ft | Date Reported: | 06-10-03 |
| Laboratory Number: | 25825 | Date Sampled: | 06-06-03 |
| Chain of Custody No: | 10987 | Date Received: | 06-09-03 |
| Sample Matrix: | Soil | Date Extracted: | 06-09-03 |
| Preservative: | Cool | Date Analyzed: | 06-10-03 |
| Condition: | Cool and Intact | Analysis Requested: | 8015 TPH |

| Parameter | Concentration (mg/Kg) | Det. Limit (mg/Kg) |
|---|---|---|
| **Gasoline Range (C5 - C10)** | **36.8** | **0.2** |
| **Diesel Range (C10 - C28)** | **267** | **0.1** |
| **Total Petroleum Hydrocarbons** | **304** | **0.2** |

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Chaparral Oso Canyon C - 1.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021
## AROMATIC VOLATILE ORGANICS

| | | | |
|---|---|---|---|
| Client: | B.E.S.T., LLC | Project #: | 02023-001 |
| Sample ID: | Ctr Pit @ 6 ft | Date Reported: | 06-10-03 |
| Laboratory Number: | 25825 | Date Sampled: | 06-06-03 |
| Chain of Custody: | 10987 | Date Received: | 06-09-03 |
| Sample Matrix: | Soil | Date Analyzed: | 06-10-03 |
| Preservative: | Cool | Date Extracted: | 06-09-03 |
| Condition: | Cool & Intact | Analysis Requested: | BTEX |

| Parameter | Concentration (ug/Kg) | Det. Limit (ug/Kg) |
|---|---|---|
| **Benzene** | **ND** | **1.8** |
| **Toluene** | **ND** | **1.7** |
| **Ethylbenzene** | **72.2** | **1.5** |
| **p,m-Xylene** | **377** | **2.2** |
| **o-Xylene** | **101** | **1.0** |
| **Total BTEX** | **550** | |

ND - Parameter not detected at the stated detection limit.

| Surrogate Recoveries: | Parameter | Percent Recovery |
|---|---|---|
| | **Fluorobenzene** | **95 %** |
| | **1,4-difluorobenzene** | **95 %** |
| | **Bromochlorobenzene** | **95 %** |

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

**Comments:** **Chaparral Oso Canyon C - 1.**

Analyst

Review

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