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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

# Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☑ No ☐

(WFS CLOSURE) Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☑

Operator: CONOCOPHILLIPS COMPANY Telephone: e-mail address:

Address: PO BOX 2197 HOUSTON, TX 77252

Facility or well name: SAN JUAN 29 6 UNIT #026 API #: 30-039-07611 U/L or Qtr/Qtr K SEC 13 T 29N R 6W

County: RIO ARRIBA Latitude 36.72302 Longitude -107.41792 NAD: 1927 ☑ 1983 ☐

Surface Owner: Federal ☑ State ☐ Private ☐ Indian ☐

**Pit**

Type: Drilling ☐ Production ☑ Disposal ☐

Workover ☐ Emergency ☐

Lined ☐ Unlined ☑

Liner Type: Synthetic ☐ Thickness mil Clay ☐

Pit Volume 77 bbl

**Below-grade tank**

Volume: bbl Type of fluid:

Construction Material:

Double-walled, with leak detection? Yes ☐ If not, explain why not.

| | | | |
|---|---|---|---|
| Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.) | Less than 50 feet<br>50 feet or more, but less than 100 feet<br>100 feet or more | (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 all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.) | Less than 200 feet<br>200 feet to 1,000 feet<br>Greater than 1,000 feet | (20 points)<br>(10 points)<br>(0 points) | 10 |
| | **Ranking Score (TOTAL POINTS):** | | 10 |

**If this is a pit closure:** (1)Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if your are burying in place) onsite ☑ offsite ☐ If offsite, name of facility _____. (3)Attach a general description of remedial action taken including remediation start date and end date. (4)Groundwater encountered: No ☑ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results. (5)Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

OCT 2005 RECEIVED OIL CONS. DIV. DIST. 3

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☑

Date: 9/9/05

Printed Name/Title Mark Harvey for Williams Field Services Signature MH for WFS

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

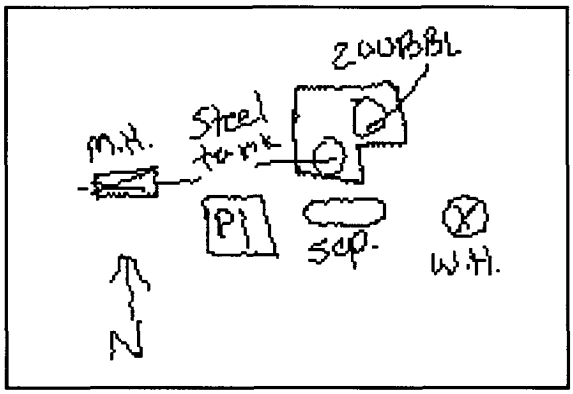
Printed Name/Title DEPUTY OIL & GAS INSPECTOR, DIST. #3 Signature Denny Foust Date: OCT 12 2005

# ADDENDUM TO OCD FORM C-144

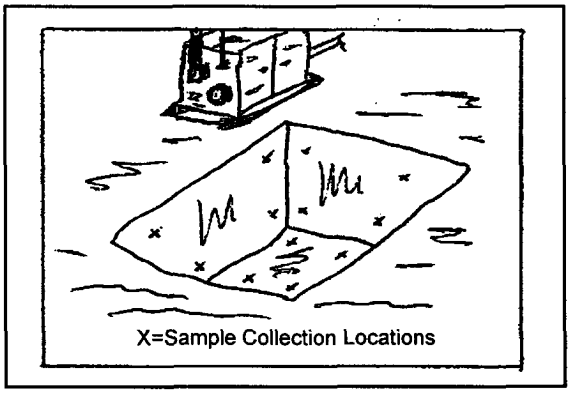
**Operator:** CONOCOPHILLIPS COMPANY **API:** 30-039-07611

**Well Name:** SAN JUAN 29 6 UNIT #026 **Meter:** 86058

**Facility Diagram:**




**Sampling Diagram:**




**Pit Dimensions**

Length 12 Ft.

Width 12 Ft.

Depth 3 Ft.

**Location of Pit Center**

Latitude 36.72296

Longitude -107.4182

(NAD 1927)

**Pit ID**

860581

**Pit Type**

Glycol Dehydrator

**Date Closure Started:** 4/23/03 **Date Closure Completed:** 4/23/03

**Closure Method:** Excavated, Blended, Treated Soil Returned

**Bedrock Encountered ?** ☑

**Cubic Yards Excavated:** 66

**Vertical Extent of Equipment Reached ?** ☐

**Description Of Closure Action:**

Contaminated soil was removed and treated then returned to the excavation following sampling of the walls and floor.

BEDROCK limited vertical excavation and/or prevented sampling. This condition limits deleterious environmental effects.

**Pit Closure Sampling:**

| Sample ID | Sample Date | Head Space | BTEX Total (mg/kg) | Benzene (mg/kg) | TPH DRO (mg/kg) | Purpose | Location | Depth | |
|---|---|---|---|---|---|---|---|---|---|
| 133524JUN02 | 6/24/02 | | 268.5 | 5.5 | 350 | ASSESS | | 2 | |
| 153423APR03 | 4/23/03 | 1724 | 52.3 | 0 | 140 | EX Confirm | Flr | 7 | See Risk Analysis |
| 153723APR03 | 4/23/03 | 10.4 | 0.16 | 0 | | EX Confirm | Walls | 7 | |

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**Pace Analytical Services, Inc.**
9608 Loiret Blvd.
Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

Lab Project Number: 6060215
Client Project ID: N.M. Pits Assessments

Lab Sample No: 605229061 Project Sample Number: 6060215-006 Date Collected: 06/24/02 13:35
Client Sample ID: 133524JUN02 Matrix: Soil Date Received: 06/27/02 09:20

| Parameters | Results | Units | Report Limit | Analyzed | By | CAS No. | Qual | RegLmt |
|---|---|---|---|---|---|---|---|---|
| **GC Semivolatiles** | | | | | | | | |
| Total Extractable Hydrocarbons | Prep/Method: OA2 / OA2 | | | | | | | |
| Mineral Spirits | ND | mg/kg | 12. | 07/03/02 23:31 | WAW | | | |
| Jet Fuel | ND | mg/kg | 12. | 07/03/02 23:31 | WAW | | | |
| Kerosene | ND | mg/kg | 12. | 07/03/02 23:31 | WAW | | | |
| Diesel Fuel | 350 | mg/kg | 12. | 07/03/02 23:31 | WAW | 68334-30-5 | 1 | |
| Fuel Oil | ND | mg/kg | 12. | 07/03/02 23:31 | WAW | 68334-30-5 | | |
| Motor Oil | ND | mg/kg | 12. | 07/03/02 23:31 | WAW | | | |
| n-Tetracosane (S) | 128 | % | | 07/03/02 23:31 | WAW | 646-31-1 | | |
| p-Terphenyl (S) | 108 | % | | 07/03/02 23:31 | WAW | 92-94-4 | | |
| Date Extracted | | | | 07/02/02 | | | | |
| **Organics Prep** | | | | | | | | |
| Percent Moisture | Method: | | | | | | | |
| Percent Moisture | 17.7 | % | | 07/03/02 | MIM | | | |
| **GC Volatiles** | | | | | | | | |
| TPH Gas/BTEX | Prep/Method: TPH GRO/BTEX / EPA 8021/OA1 | | | | | | | |
| Gasoline Range Hydrocarbons | 3300000 | ug/kg | 59000 | 07/03/02 09:23 | SHF | | | |
| Benzene | 5500 | ug/kg | 590 | 07/03/02 09:23 | SHF | 71-43-2 | | |
| Toluene | 49000 | ug/kg | 590 | 07/03/02 09:23 | SHF | 108-88-3 | | |
| Ethylbenzene | 14000 | ug/kg | 590 | 07/03/02 09:23 | SHF | 100-41-4 | | |
| Xylene (Total) | 200000 | ug/kg | 1500 | 07/03/02 09:23 | SHF | 1330-20-7 | | |
| a,a,a-Trifluorotoluene (S) | 193 | % | | 07/03/02 09:23 | SHF | 98-08-8 | 2,3 | |
| 4-Bromofluorobenzene (S) | 103 | % | | 07/03/02 09:23 | SHF | 460-00-4 | | |



**REPORT OF LABORATORY ANALYSIS**

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Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

Lab Project Number: 6069944
Client Project ID: NM PIT PROGRAM

Solid results are reported on a dry weight basis

Lab Sample No: 606028041 Project Sample Number: 6069944-001 Date Collected: 04/23/03 15:34
Client Sample ID: 153423APR03 Matrix: Soil Date Received: 04/29/03 09:30

| Parameters | Results | Units | Report Limit | DF | Analyzed | By | CAS No. | Qual | RegLmt |
|---|---|---|---|---|---|---|---|---|---|
| **GC Semivolatiles** | | | | | | | | | |
| Total Extractable Hydrocarbons | Prep/Method: OA2 / OA2 | | | | | | | | |
| Mineral Spirits | ND | mg/kg | 11. | 1.1 | 05/01/03 02:25 | MIM | | | |
| Jet Fuel | ND | mg/kg | 11. | 1.1 | 05/01/03 02:25 | MIM | | | |
| Kerosene | ND | mg/kg | 11. | 1.1 | 05/01/03 02:25 | MIM | | | |
| Diesel Fuel | ND | mg/kg | 11. | 1.1 | 05/01/03 02:25 | MIM | 68334-30-5 | | |
| Fuel Oil | ND | mg/kg | 11. | 1.1 | 05/01/03 02:25 | MIM | 68334-30-5 | | |
| Motor Oil | ND | mg/kg | 11. | 1.1 | 05/01/03 02:25 | MIM | | | |
| Total Petroleum Hydrocarbons | 140 | mg/kg | 11. | 1.1 | 05/01/03 02:25 | MIM | | 1 | |
| n-Tetracosane (S) | 122 | % | | 1.0 | 05/01/03 02:25 | MIM | 646-31-1 | | |
| p-Terphenyl (S) | 108 | % | | 1.0 | 05/01/03 02:25 | MIM | 92-94-4 | | |
| Date Extracted | 04/30/03 | | | | 04/30/03 | | | | |
| **Organics Prep** | | | | | | | | | |
| Percent Moisture | Method: SM 2540G | | | | | | | | |
| Percent Moisture | 13.1 | % | | 1.0 | 05/01/03 | MAM | | | |
| **GC Volatiles** | | | | | | | | | |
| Aromatic Volatile Organics | Prep/Method: EPA 5030 Medium Soil / EPA 8021 | | | | | | | | |
| Benzene | ND | ug/kg | 570 | 11.4 | 05/01/03 14:30 | | 71-43-2 | | |
| Ethylbenzene | 2500 | ug/kg | 570 | 11.4 | 05/01/03 14:30 | | 100-41-4 | | |
| Toluene | 9800 | ug/kg | 570 | 11.4 | 05/01/03 14:30 | | 108-88-3 | | |
| Xylene (Total) | 40000 | ug/kg | 1400 | 11.4 | 05/01/03 14:30 | | 1330-20-7 | | |
| a,a,a-Trifluorotoluene (S) | 88 | % | | 1.0 | 05/01/03 14:30 | | 98-08-8 | | |

Date: 05/02/03



# REPORT OF LABORATORY ANALYSIS

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Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

Lab Project Number: 6069944
Client Project ID: NM PIT PROGRAM

Lab Sample No: 606028058 Project Sample Number: 6069944-002 Date Collected: 04/23/03 15:37
Client Sample ID: 153723APR03 Matrix: Soil Date Received: 04/29/03 09:30

| Parameters | Results | Units | Report Limit | DF | Analyzed | By | CAS No. | Qual | RegLmt |
|---|---|---|---|---|---|---|---|---|---|
| **Organics Prep** | | | | | | | | | |
| Percent Moisture | Method: SM 2540G | | | | | | | | |
| Percent Moisture | 12.1 | % | | 1.0 | 05/01/03 | MAM | | | |
| **GC Volatiles** | | | | | | | | | |
| Aromatic Volatile Organics | Prep/Method: EPA 5030 Medium Soil / EPA 8021 | | | | | | | | |
| Benzene | ND | ug/kg | 57. | 1.1 | 04/30/03 23:54 | | 71-43-2 | | |
| Ethylbenzene | ND | ug/kg | 57. | 1.1 | 04/30/03 23:54 | | 100-41-4 | | |
| Toluene | ND | ug/kg | 57. | 1.1 | 04/30/03 23:54 | | 108-88-3 | | |
| Xylene (Total) | 160 | ug/kg | 140 | 1.1 | 04/30/03 23:54 | | 1330-20-7 | | |
| a,a,a-Trifluorotoluene (S) | 96 | % | | 1.0 | 04/30/03 23:54 | | 98-08-8 | | |



**REPORT OF LABORATORY ANALYSIS**

Environmental Services
188 CR 4900
Bloomfield, NM 8413

## Pit Closure and Retirement Addendum- Risk Assessment

This site is located in the NMOCD / USBLM defined "Non Vulnerable Area". These agencies have predetermined that historical use of unlined pits in this area have limited potential to adversely affect ground water. This is primarily due to the depth to ground water, lack of vertical migration of contaminants, and distant proximity to river drainages.

The sample analyzed for confirmation at this site exhibited elevated levels of total petroleum hydrocarbons (TPH) and / or BTEX. Toxicity information indicates that the measured levels pose little risk to human health and the environment. This conclusion is based in part on the information below:

Toxicity Information

Toxicity values for TPH have not been established due to the variability of the chemical makeup of TPH. Normally, the toxicity is based on the toxicity of particular constituents of concern that may be present and which are evaluated based on health-based standards. The most common constituents examined include benzene, ethylbenzene, toluene, and xylene.

In the absence of constituents of concern or when the concentrations of the constituents of concern are low, the acceptable level of TPH is established by considering the following:

- No liquid product should remain in the soil
- The TPH should not harm vegetation
- The TPH concentrations should not create an odor nuisance
- Hydrocarbon vapors which may emanate from the impacted soil should not generate harmful or explosive vapors
- Site monitoring should indicate that TPH levels are stable or declining

Environmental and Site Conditions

Based on an evaluation of site topography and available well data, this site is believed to have ground water greater than 100' below ground surface. The absence of continuous transport mechanisms limits continued migration of contaminants in soil. Notwithstanding, **bedrock** was discovered at the pit (i.e. excavation) bottom. This condition retards vertical migration of contaminants and serves to significantly limit potential groundwater impact.

While residual TPH and/or BTEX exists at this site, closure of this site is warranted for the following reasons:

1. The majority of soils that exhibited high levels of TPH and BTEX have been treated to enhance degradation in-situ.
2. Residual TPH concentrations are below levels considered problematic based on the criteria above.
3. Discharge at the site has been eliminated to prevent any future impacts to soils.
4. Depth to groundwater is estimated at greater than 100'.
5. Vertical migration of contamination is limited due to **bedrock**.
6. TPH / BTEX concentrations will not increase and will degrade over time from natural and enhanced processes occurring in-situ.
7. Further excavation at the site is not practicable due to bedrock.

**Since there are no nearby receptors or domestic water sources, this site poses little risk to human health and the environment. Closure is justified based on the relatively low total petroleum hydrocarbon (TPH) concentration and the fact that all closure criteria cannot be practically attained. Additional information may be found in the Technical Background Document titled: *Risk Based Closure of Unlined Surface Impoundment Sites, San Juan Basin, New Mexico.***