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: BP AMERICA PRODUCTION COMPANY Telephone: e-mail address:

Address: PO BOX 22048 TULSA, OK 74121

Facility or well name: FLORANCE L #019 API #: 30-045-09916 U/L or Qtr/Qtr H SEC 3 T 30N R 9W

County: SAN JUAN Latitude 36 50.578 N Longitude 107 45.723 W 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 26 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 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) (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 No	(20 points) (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 200 feet to 1,000 feet Greater than 1,000 feet	(20 points) (10 points) (0 points) 0
	Ranking Score (TOTAL POINTS):	0

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:

Bedrock

RECEIVED
FEB 2006
OIL CONS. DIV.
DIST. 3

Meter: 34069

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: 10/3/05

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 liablility 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:

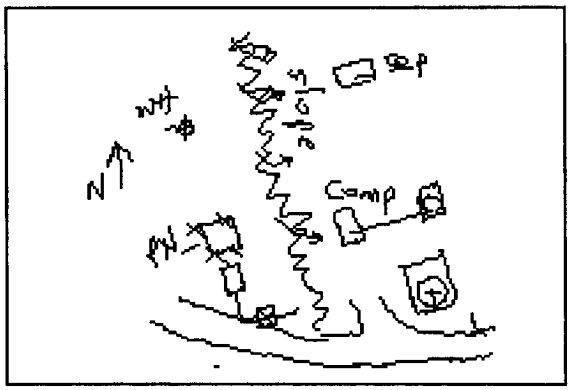
Printed Name/Title DEPUTY OIL & GAS INSPECTOR, DIST. #3 Signature Denny Foust Date: FEB 02 2006

ADDENDUM TO OCD FORM C-144

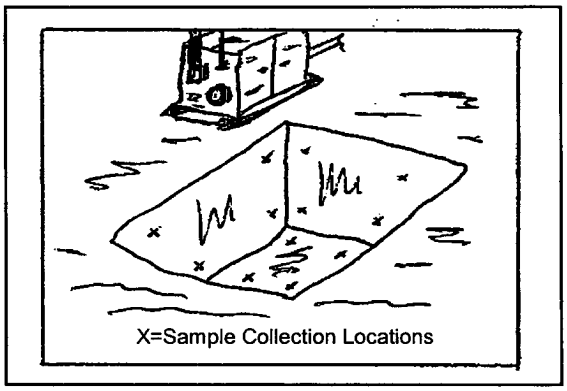
Operator: BP AMERICA PRODUCTION COMPANY **API** 30-045-09916

Well Name: FLORANCE L #019 **Meter:** 34069

Facility Diagram:



Sampling Diagram:



Pit Dimensions		Location of Pit Center	Pit ID
Length	12 Ft.	Latitude 36 50.570 N	340691
Width	12 Ft.	Longitude 07 45.724 W	**Pit Type**
Depth	1 Ft.	(NAD 1927)	Glycol Dehydrator

Date Closure Started: 4/18/05 **Date Closure Completed:** 4/18/05

Closure Method: Excavated, Blended, Treated Soil Returned **Bedrock Encountered ?** ☑

Cubic Yards Excavated: 43

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	
140206MAR05	3/6/05		2822	230	600	ASSESS	Flr	3.5	
145718APR05	4/18/05	112	0	0	0	EX Confirm	Walls	7	See Risk Analysis
150418APR05	4/18/05	224	82.7	1.5	75	EX Confirm	Flr	8	See Risk Analysis

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9608 Loiret Blvd.
Lenexa, KS 66219
Phone: 913.599.5665
Fax: 913.599.1759

Lab Project Number: 6092681
Client Project ID: NM Pits 02/18-03/04/2005

Lab Sample No: 607961620 Project Sample Number: 6092681-008 Date Collected: 03/06/05 14:02
Client Sample ID: 140206MAR05 Matrix: Soil Date Received: 03/10/05 09:00

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	12.	1.2	03/16/05 23:41	RMN1			
Jet Fuel	ND	mg/kg	12.	1.2	03/16/05 23:41	RMN1			
Kerosene	ND	mg/kg	12.	1.2	03/16/05 23:41	RMN1			
Diesel Fuel	ND	mg/kg	12.	1.2	03/16/05 23:41	RMN1	68334-30-5		
Fuel Oil	ND	mg/kg	12.	1.2	03/16/05 23:41	RMN1	68334-30-5		
Motor Oil	ND	mg/kg	12.	1.2	03/16/05 23:41	RMN1			
Total Petroleum Hydrocarbons	600	mg/kg	12.	1.2	03/16/05 23:41	RMN1		1	
n-Tetracosane (S)	104	%		1.0	03/16/05 23:41	RMN1	646-31-1		
p-Terphenyl (S)	118	%		1.0	03/16/05 23:41	RMN1	92-94-4		
Date Extracted	03/16/05				03/16/05				
Organics Prep									
Percent Moisture	Method: SM 2540G								
Percent Moisture	15.8	%		1.0	03/11/05	ALJ1			
GC/MS Volatiles									
UST VOCs in Soil	Prep/Method: EPA 5030 Medium Soil / EPA 8260								
Benzene	230000	ug/kg	12000	238	03/16/05 12:09	AEP	71-43-2		
Toluene	1400000	ug/kg	12000	238	03/16/05 12:09	AEP	108-88-3		
Ethylbenzene	92000	ug/kg	12000	238	03/16/05 12:09	AEP	100-41-4		
Xylene (Total)	1100000	ug/kg	36000	238	03/16/05 12:09	AEP	1330-20-7		
Dibromofluoromethane (S)	105	%		1.0	03/16/05 12:09	AEP	1868-53-7		
1,2-Dichloroethane-d4 (S)	105	%		1.0	03/16/05 12:09	AEP	17060-07-0		
Toluene-d8 (S)	115	%		1.0	03/16/05 12:09	AEP	2037-26-5		
4-Bromofluorobenzene (S)	96	%		1.0	03/16/05 12:09	AEP	460-00-4		

REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 6094208
Client Project ID: N MEXICO PIT PROGRAM

Lab Sample No: 608089777 Project Sample Number: 6094208-024 Date Collected: 04/18/05 14:57
Client Sample ID: 145718APR05 Matrix: Soil Date Received: 04/22/05 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	04/26/05 13:07	RMN1			
Jet Fuel	ND	mg/kg	11.	1.1	04/26/05 13:07	RMN1			
Kerosene	ND	mg/kg	11.	1.1	04/26/05 13:07	RMN1			
Diesel Fuel	ND	mg/kg	11.	1.1	04/26/05 13:07	RMN1	68334-30-5		
Fuel Oil	ND	mg/kg	11.	1.1	04/26/05 13:07	RMN1	68334-30-5		
Motor Oil	ND	mg/kg	11.	1.1	04/26/05 13:07	RMN1			
n-Tetracosane (S)	80	%		1.0	04/26/05 13:07	RMN1	646-31-1		
p-Terphenyl (S)	82	%		1.0	04/26/05 13:07	RMN1	92-94-4		
Date Extracted	04/25/05				04/25/05				
Organics Prep									
Percent Moisture	Method: SM 2540G								
Percent Moisture	8.4	%		1.0	04/25/05	CJN1			
GC Volatiles									
Aromatic Volatile Organics	Prep/Method: EPA 5030 Medium Soil / EPA 8021								
Benzene	ND	ug/kg	54.	1.1	04/25/05 18:24	SHF	71-43-2		
Ethylbenzene	ND	ug/kg	54.	1.1	04/25/05 18:24	SHF	100-41-4		
Toluene	ND	ug/kg	54.	1.1	04/25/05 18:24	SHF	108-88-3		
Xylene (Total)	ND	ug/kg	140	1.1	04/25/05 18:24	SHF	1330-20-7		
a,a,a-Trifluorotoluene (S)	104	%		1.0	04/25/05 18:24	SHF	98-08-8		

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Lab Project Number: 6094208
Client Project ID: N MEXICO PIT PROGRAM

Lab Sample No: 608089785 Project Sample Number: 6094208-025 Date Collected: 04/18/05 15:04
Client Sample ID: 150418APR05 Matrix: Soil Date Received: 04/22/05 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	04/26/05 13:24	RMN1			
Jet Fuel	ND	mg/kg	11.	1.1	04/26/05 13:24	RMN1			
Kerosene	ND	mg/kg	11.	1.1	04/26/05 13:24	RMN1			
Diesel Fuel	ND	mg/kg	11.	1.1	04/26/05 13:24	RMN1	68334-30-5		
Fuel Oil	ND	mg/kg	11.	1.1	04/26/05 13:24	RMN1	68334-30-5		
Motor Oil	ND	mg/kg	11.	1.1	04/26/05 13:24	RMN1			
Total Petroleum Hydrocarbons	75.	mg/kg	11.	1.1	04/26/05 13:24	RMN1		2	
n-Tetracosane (S)	94	%		1.0	04/26/05 13:24	RMN1	646-31-1		
p-Terphenyl (S)	92	%		1.0	04/26/05 13:24	RMN1	92-94-4		
Date Extracted	04/25/05				04/25/05				
Organics Prep									
Percent Moisture	Method: SM 2540G								
Percent Moisture	7.2	%		1.0	04/25/05	CJN1			
GC Volatiles									
Aromatic Volatile Organics	Prep/Method: EPA 5030 Medium Soil / EPA 8021								
Benzene	1500	ug/kg	480	9.6	04/26/05 08:43	SHF	71-43-2		
Ethylbenzene	4200	ug/kg	480	9.6	04/26/05 08:43	SHF	100-41-4		
Toluene	21000	ug/kg	480	9.6	04/26/05 08:43	SHF	108-88-3		
Xylene (Total)	56000	ug/kg	1300	9.6	04/26/05 08:43	SHF	1330-20-7		
a,a,a-Trifluorotoluene (S)	110	%		1.0	04/26/05 08:43	SHF	98-08-8		

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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.*