

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

Form C-144
June 1, 2004

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

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 ☐

Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

Operator: BP AMERICA PROD. CO. Telephone: (505)-326-9200 e-mail address: _____
Address: 200 ENERGY COURT, FARMINGTON, NM 87410
Facility or well name: KERNAGHAN B #4A API #: 30-045- 22422 U/L or Qtr/Qtr P Sec 30 T 31N R 8W
County: SAN JUAN Latitude 36.86407 Longitude 107.71091 NAD: 1927 ☐ 1983 ☒ Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

Pit	Below-grade tank	
Type: Drilling <input type="checkbox"/> Production <input checked="" type="checkbox"/> Disposal <input type="checkbox"/> SEPARATOR Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/> STEEL TANK Liner type: Synthetic <input type="checkbox"/> Thickness _____ mil Clay <input type="checkbox"/> Pit Volume _____ bbl	Volume: _____ bbl Type of fluid: _____ Construction material: <u>N/A</u> Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not: _____	RCVD APR 5 '07 OIL CONS. DIV. DIST. 3
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 or more, but less than 1000 feet 1000 feet or more	(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 you 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 PIT LOCATED APPROXIMATELY 141 FT. N43W FROM WELL HEAD.
PIT EXCAVATION: WIDTH N/A ft., LENGTH N/A ft., DEPTH N/A ft.
PIT REMEDIATION: CLOSE AS IS: ☒ LANDFARM: ☐ COMPOST: ☐ STOCKPILE: ☐ OTHER ☐ (explain)
Cubic yards: N/A
BEDROCK BOTTOM.


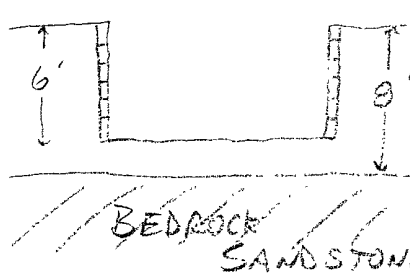
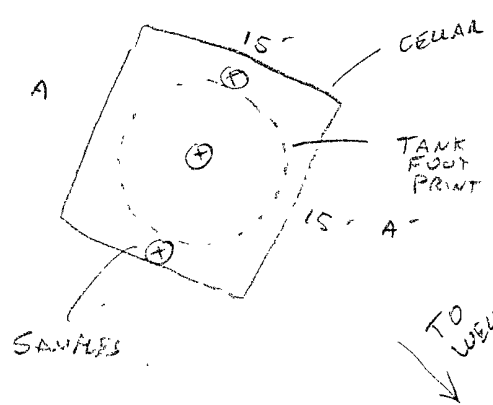
I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an alternative OCD-approved plan ☒.

Date: 11/27/06

Printed Name/Title Jeff Blagg - P.E. # 11607 Signature [Signature]

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: Deputy Oil & Gas Inspector,
District #3
Printed Name/Title _____ Signature [Signature] Date: AUG 03 2007.

CLIENT: <u>BP</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>B1802</u> COCR NO: <u>1733</u>																																	
FIELD REPORT: PIT CLOSURE VERIFICATION		PAGE No: <u>1</u> of <u>1</u>																																	
LOCATION: NAME: <u>KERNAGHAN B</u> WELL #: <u>4A</u> TYPE: <u>SEP</u> QUAD/UNIT: <u>P</u> SEC: <u>30</u> TWP: <u>31N</u> RNG: <u>8W</u> PM: <u>NM</u> CNTY: <u>SJ</u> ST: <u>NM</u> QTR/FOOTAGE: <u>830'S/890'E</u> SE CONTRACTOR: <u>HDI-LYNELL</u>		DATE STARTED <u>11-17-06</u> DATE FINISHED <u>11-17-06</u> ENVIRONMENTAL SPECIALIST: <u>JCB</u>																																	
EXCAVATION APPROX. <u>NA</u> FT. x <u>NA</u> FT. x <u>NA</u> FT. DEEP. CUBIC YARDAGE: <u>0</u>																																			
DISPOSAL FACILITY: <u>NA</u> REMEDIATION METHOD: <u>CLOSE AS IS</u>																																			
LAND USE: <u>RANGE. BLM</u> LEASE: <u>SF - 078387A</u> FORMATION: <u>MV</u>																																			
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY <u>141</u> FT. <u>N 43 W</u> FROM WELLHEAD. DEPTH TO GROUNDWATER: <u>>100</u> NEAREST WATER SOURCE: <u>>1000</u> NEAREST SURFACE WATER: <u>>1000</u> NMOC D RANKING SCORE: <u>0</u> NMOC D TPH CLOSURE STD: <u>5000</u> PPM																																			
SOIL AND EXCAVATION DESCRIPTION:		OVM CALIB. READ. = <u>53.0</u> ppm OVM CALIB. GAS = <u>100</u> ppm RF = 0.52 TIME: <u>0700</u> am/pm DATE <u>11-17-06</u>																																	
SOIL TYPE: SAND <u>(SILTY SAND)</u> SILT / SILTY CLAY / CLAY / GRAVEL <u>(OTHER)</u> <u>BEDROCK SANDSTONE @ 8'</u> SOIL COLOR: <u>TAN</u> COHESION (ALL OTHERS): NON COHESIVE <u>(SLIGHTLY COHESIVE)</u> COHESIVE / HIGHLY COHESIVE CONSISTENCY (NON COHESIVE SOILS): LOOSE <u>(FIRM)</u> DENSE / VERY DENSE PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARD MOISTURE <u>(DRY)</u> / SLIGHTLY MOIST / MOIST / WET / SATURATED / SUPER SATURATED DISCOLORATION/STAINING OBSERVED. YES / <u>NO</u> EXPLANATION - HC ODOR DETECTED YES / <u>NO</u> EXPLANATION - SAMPLE TYPE GRAB <u>(COMPOSITE)</u> # OF PTS <u>3</u> ADDITIONAL COMMENTS: <u>15'x15'x6' DEEP WOOD LINED CELLAR w/ 95 BBL steel tank - BASE EXPOSED - PULL TANK + SAMPLE WITH BACKHOE - HIT FIRM SANDSTONE @ 8'</u> <u>BEDROCK Bottom</u>																																			
FIELD 418.1 CALCULATIONS																																			
SCALE  0 FT N	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>SAMP. TIME</th> <th>SAMP. ID</th> <th>LAB NO.</th> <th>WEIGHT (g)</th> <th>mL FREON</th> <th>DILUTION</th> <th>READING</th> <th>CALC. (ppm)</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	SAMP. TIME	SAMP. ID	LAB NO.	WEIGHT (g)	mL FREON	DILUTION	READING	CALC. (ppm)																									PIT PROFILE 	
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PIT PERIMETER 	OVM READING <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>SAMPLE ID</th> <th>FIELD HEADSPACE (ppm)</th> </tr> </thead> <tbody> <tr><td>1 @</td><td> </td></tr> <tr><td>2 @</td><td> </td></tr> <tr><td>3 @</td><td> </td></tr> <tr><td>4 @</td><td> </td></tr> <tr><td>5 @</td><td> </td></tr> <tr><td>3-Point @ 8'</td><td>0.0</td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>	SAMPLE ID	FIELD HEADSPACE (ppm)	1 @		2 @		3 @		4 @		5 @		3-Point @ 8'	0.0					LAB SAMPLES <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>SAMPLE ID</th> <th>ANALYSIS</th> <th>TIME</th> </tr> </thead> <tbody> <tr><td>3-pt</td><td>T/B/CL</td><td>0922</td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	SAMPLE ID	ANALYSIS	TIME	3-pt	T/B/CL	0922									
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P.D. = PIT DEPRESSION, B.G. = BELOW GRADE, B = BELOW T.H. = TEST HOLE, ~ = APPROX., T.B. = TANK BOTTOM																																			
TRAVEL NOTES: CALLOUT: _____ ONSITE: <u>11-17-06</u>																																			

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

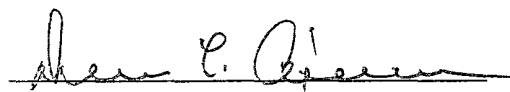
Client:	Blagg / BP	Project #:	94034-010
Sample ID:	3-Point @ 8'	Date Reported:	11-21-06
Laboratory Number:	39255	Date Sampled:	11-17-06
Chain of Custody No:	1733	Date Received:	11-20-06
Sample Matrix:	Soil	Date Extracted:	11-20-06
Preservative:	Cool	Date Analyzed:	11-21-06
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

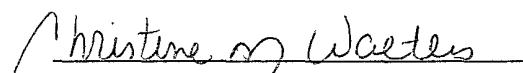
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

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: **Kernaghan B 4A Sep Pit**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	3-Point @ 8'	Date Reported:	11-21-06
Laboratory Number:	39255	Date Sampled:	11-17-06
Chain of Custody:	1733	Date Received:	11-20-06
Sample Matrix:	Soil	Date Analyzed:	11-21-06
Preservative:	Cool	Date Extracted:	11-20-06
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	1.8
Toluene	12.3	1.7
Ethylbenzene	3.6	1.5
p,m-Xylene	36.5	2.2
o-Xylene	7.4	1.0
Total BTEX	59.8	

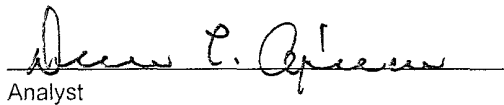
ND - Parameter not detected at the stated detection limit.

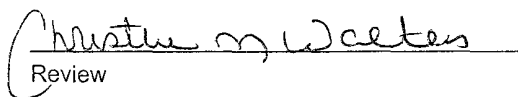
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	97.0 %
	1,4-difluorobenzene	97.0 %
	Bromochlorobenzene	97.0 %

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: Kernaghan B 4A Sep Pit


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Review

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Chloride

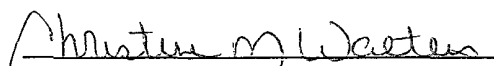
Client:	Blagg / BP	Project #:	94034-010
Sample ID:	3-Point @ 8'	Date Reported:	11-21-06
Lab ID#:	39255	Date Sampled:	11-17-06
Sample Matrix:	Soil	Date Received:	11-20-06
Preservative:	Cool	Date Analyzed:	11-21-06
Condition:	Cool and Intact	Chain of Custody:	1733


Parameter	Concentration (mg/Kg)
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Total Chloride	22.0
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Reference: Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Kernaghan B 4A Sep Pit


Analyst


Review

1733

san juan reproduction 578-129

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	11-21-06 QA/QC	Date Reported:	11-21-06
Laboratory Number:	39250	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-21-06
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	Accept. Range
Gasoline Range C5 - C10	07-11-05	1.0079E+003	1.0090E+003	0.10%	0 - 15%
Diesel Range C10 - C28	07-11-05	1.0020E+003	1.0040E+003	0.20%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

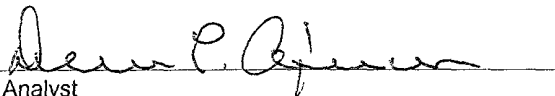
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	1,080	1,070	0.9%	0 - 30%
Diesel Range C10 - C28	266	264	0.6%	0 - 30%

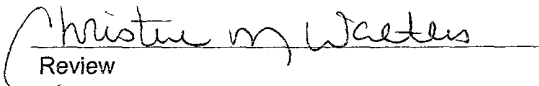
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	1,080	250	1,320	99.2%	75 - 125%
Diesel Range C10 - C28	266	250	515	99.8%	75 - 125%

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: QA/QC for Samples 39250 - 39255


Analyst


Review

ENVIROTECH LABS

PRactical SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	11-21-BTEX QA/QC	Date Reported:	11-21-06
Laboratory Number:	39250	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-21-06
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff	Blank Conc	Detect Limit
		Accept Range 0 - 15%			
Benzene	3.8391E+007	3.8468E+007	0.2%	ND	0.2
Toluene	5.1489E+007	5.1592E+007	0.2%	ND	0.2
Ethylbenzene	2.7560E+007	2.7616E+007	0.2%	ND	0.2
p,m-Xylene	9.8249E+007	9.8446E+007	0.2%	ND	0.2
o-Xylene	4.3980E+007	4.4068E+007	0.2%	ND	0.1

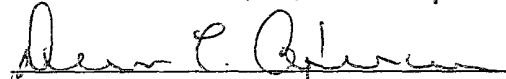
Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff	Accept Range	Detect Limit
Benzene	518	517	0.2%	0 - 30%	1.8
Toluene	3,230	3,220	0.3%	0 - 30%	1.7
Ethylbenzene	3,290	3,280	0.3%	0 - 30%	1.5
p,m-Xylene	9,590	9,580	0.1%	0 - 30%	2.2
o-Xylene	3,610	3,600	0.3%	0 - 30%	1.0

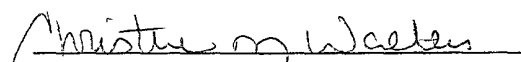
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	518	50.0	567	99.8%	39 - 150
Toluene	3,230	50.0	3,270	99.7%	46 - 148
Ethylbenzene	3,290	50.0	3,330	99.7%	32 - 160
p,m-Xylene	9,590	100	9,670	99.8%	46 - 148
o-Xylene	3,610	50.0	3,650	99.7%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for Samples 39250 - 39255


Analyst


Review