

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

State of New Mexico  
Energy Minerals and Natural Resources

Form C-144  
June 1, 2004

District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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: HEATON LS #31 API #: 30-045- 21100 U/L or Qtr/Qtr N Sec 28 T 31N R 11W  
County: SAN JUAN Latitude 36.86610 Longitude 107.99992 NAD: 1927 ☐ 1983 ☒ Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

<b>Pit</b> Type: Drilling <input type="checkbox"/> Production <input type="checkbox"/> Disposal <input checked="" type="checkbox"/> <u>BLOW</u> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input type="checkbox"/> Unlined <input checked="" type="checkbox"/> Liner type: Synthetic <input type="checkbox"/> Thickness _____ mil Clay <input type="checkbox"/> Pit Volume _____ bbl	<b>Below-grade tank</b> 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. _____
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet (20 points) 50 feet or more, but less than 100 feet (10 points) <b>0</b> 100 feet or more (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes (20 points) No (0 points) <b>0</b>
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet (20 points) 200 feet or more, but less than 1000 feet (10 points) <b>10</b> 1000 feet or more (0 points)
<b>Ranking Score (Total Points)</b> <b>10</b>	

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 BP CROUCH MESA LF. (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: <u>PIT LOCATED APPROXIMATELY 63 FT. S30W FROM WELL HEAD.</u>
<u>PIT EXCAVATION: WIDTH 16 ft., LENGTH 12 ft., DEPTH 14 ft.</u>
<u>PIT REMEDIATION: CLOSE AS IS: <input type="checkbox"/>, LANDFARM: <input type="checkbox"/>, COMPOST: <input type="checkbox"/>, STOCKPILE: <input type="checkbox"/>, OTHER <input checked="" type="checkbox"/> EXCAVATE</u>
Cubic yards: <u>88</u>
<u>BEDROCK BOTTOM</u>

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: 01/04/06

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

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, DIST. 4 Signature [Signature] Date: FEB 28 2006

CLIENT: BP
**BLAGG ENGINEERING, INC.**  
**P.O. BOX 87, BLOOMFIELD, NM 87413**  
**(505) 632-1199**
LOCATION NO: B1737COCR NO: 14608**FIELD REPORT: PIT CLOSURE VERIFICATION**PAGE No: 1 of 1LOCATION: NAME: HEATON LS WELL #: 31 TYPE: BLOWQUAD/UNIT: N SEC: 28 TWP: 31N RNG: 11W PM: NM CNTY: SJ ST: NMQTR/FOOTAGE: 1180 FSL x 1500 FWL <sup>SE/SW</sup> CONTRACTOR: PXSDATE STARTED: 12-29-05DATE FINISHED: 12-29-05ENVIRONMENTAL SPECIALIST: JCBEXCAVATION APPROX. 16 FT. x 12 FT. x 14 FT. DEEP. CUBIC YARDAGE: 88 ±DISPOSAL FACILITY: BP - CROUCH MESA L.F. REMEDIATION METHOD: EXCAVATELAND USE: RANGE - BLM LEASE: SF-078097 FORMATION: PCFIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 63 FT. S30W FROM WELLHEAD.DEPTH TO GROUNDWATER: >100 NEAREST WATER SOURCE: >1000 NEAREST SURFACE WATER: >200NMOCD RANKING SCORE: 10 NMOCD TPH CLOSURE STD: 1000 PPM**SOIL AND EXCAVATION DESCRIPTION:**
OVM CALIB. READ. = 52.7 ppm  
OVM CALIB. GAS = 100 ppm RF = 0.52  
TIME: 0830 am/pm DATE: 12-29-05
SOIL TYPE: SAND / SILTY SAND / SILT / SILTY CLAY / CLAY / GRAVEL / OTHER BEDROCK SANDSTONE @ 14'SOIL COLOR: Mix toCOHESION (ALL OTHERS): NON COHESIVE / SLIGHTLY COHESIVE / COHESIVE / HIGHLY COHESIVECONSISTENCY (NON COHESIVE SOILS): LOOSE / FIRM / DENSE / VERY DENSE

PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC

DENSITY (COHESIVE CLAYS &amp; SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARD

MOISTURE: DRY / SLIGHTLY MOIST / MOIST / WET / SATURATED / SUPER SATURATEDDISCOLORATION/STAINING OBSERVED: YES / NO EXPLANATION - v. Lite Gray Sidewalls 6'-12'HC ODOR DETECTED: YES / NO EXPLANATION - MEDIUMSAMPLE TYPE: GRAB COMPOSITE - # OF PTS. —

ADDITIONAL COMMENTS:

10' x 10' x 3' Deep Earthen Pit. Use TRACKHOEBEDROCK  
BOTTOMTO REMOVE IMPACTED SOILS TO BEDROCK SANDSTONE @ 14' Below Grade**FIELD 418.1 CALCULATIONS**

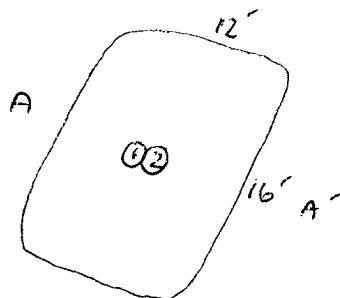
SCALE



0 FT

N  
↑

PIT PERIMETER

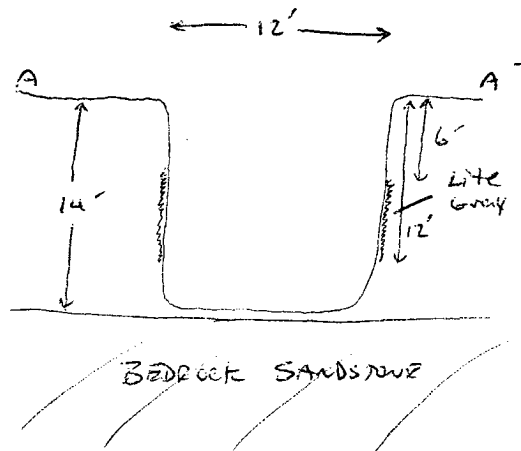
**OVM READING**

SAMPLE ID	FIELD HEADSPACE (ppm)
1 @ 10'	366
2 @ 14'	112
3 @	
4 @	
5 @	

**LAB SAMPLES**

SAMPLE ID	ANALYSIS	TIME
2 @ 14'	TPH	1520
	BTFx	
	CL-	
	<u>PHASED</u>	

PIT PROFILE


P.D. = PIT DEPRESSION; B.G. = BELOW GRADE; B = BELOW  
T.H. = TEST HOLE; ~ = APPROX.; T.B. = TANK BOTTOM

TRAVEL NOTES:

CALLOUT: —ONSITE: 12-29-05

# 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:	2 @ 14'	Date Reported:	01-04-06
Laboratory Number:	35601	Date Sampled:	12-29-05
Chain of Custody No:	14608	Date Received:	01-03-06
Sample Matrix:	Soil	Date Extracted:	01-03-06
Preservative:	Cool	Date Analyzed:	01-04-06
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

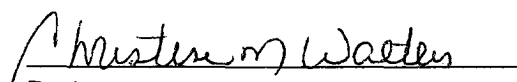
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	177	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	177	0.2

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: **Heaton LS 31 Blow 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:	2 @ 14'	Date Reported:	01-04-06
Laboratory Number:	35601	Date Sampled:	12-29-05
Chain of Custody:	14608	Date Received:	01-03-06
Sample Matrix:	Soil	Date Analyzed:	01-04-06
Preservative:	Cool	Date Extracted:	01-03-06
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	9.4	1.8
Toluene	165	1.7
Ethylbenzene	3,873	1.5
p,m-Xylene	3,680	2.2
o-Xylene	461	1.0
Total BTEX	8,190	

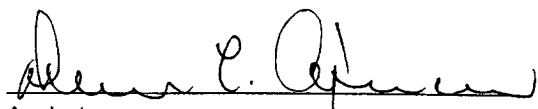
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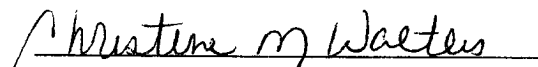
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	97.0 %
	1,4-difluorobenzene	97.0 %
	Bromochlorobenzene	97.0 %

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: Heaton LS 31 Blow Pit.

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## Chloride

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	2 @ 14'	Date Reported:	01-04-06
Lab ID#:	35601	Date Sampled:	12-29-05
Sample Matrix:	Soil	Date Received:	01-03-06
Preservative:	Cool	Date Analyzed:	01-03-06
Condition:	Cool and Intact	Chain of Custody:	14608

Parameter	Concentration (mg/Kg)
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Total Chloride

22.0

Reference: Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Heaton LS 31 Blow Pit.

  
Analyst

  
Review

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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: HEATON LS #31 API #: 30-045- 21100 U/L or Qtr/Qtr N Sec 28 T 31N R 11W  
County: SAN JUAN Latitude 36.86610 Longitude 107.99992 NAD: 1927 ☐ 1983 ☒ Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

<b>Pit</b> Type: Drilling <input type="checkbox"/> Production <input type="checkbox"/> Disposal <input checked="" type="checkbox"/> <u>SEPARATOR</u> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input type="checkbox"/> Unlined <input checked="" type="checkbox"/> Liner type: Synthetic <input type="checkbox"/> Thickness _____ mil Clay <input type="checkbox"/> Pit Volume _____ bbl	<b>Below-grade tank</b> Volume: _____ bbl Type of fluid: <u>N/A</u> Construction material: <u>N/A</u> Double-walled, with leak detection? Yes <input type="checkbox"/> 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 (20 points) 50 feet or more, but less than 100 feet (10 points) <b>0</b> 100 feet or more (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes (20 points) No (0 points) <b>0</b>
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet (20 points) 200 feet or more, but less than 1000 feet (10 points) <b>10</b> 1000 feet or more (0 points)
<b>Ranking Score (Total Points)</b> <b>10</b>	

**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 BP CROUCH MESA LF (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 21 FT. N11W FROM WELL HEAD.  
PIT EXCAVATION: WIDTH 19 ft., LENGTH 15 ft., DEPTH 17 ft.  
PIT REMEDIATION: CLOSE AS IS: ☐, LANDFARM: ☐, COMPOST: ☐, STOCKPILE: ☐, OTHER ☒ EXCAVATE.  
Cubic yards: 170  
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: 01/04/06

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

Signature Jeffrey A. Blagg

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, DIST. #3

Printed Name/Title

Signature Robert D. Ball

Date: FEB 28 2006

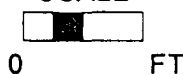
CLIENT: BP
**BLAGG ENGINEERING, INC.**  
**P.O. BOX 87, BLOOMFIELD, NM 87413**  
**(505) 632-1199**
LOCATION NO: 81737COCR NO: 14608**FIELD REPORT: PIT CLOSURE VERIFICATION**PAGE No: 1 of 1LOCATION: NAME: HEATON LS WELL #: 31 TYPE: SEPDATE STARTED: 12-29-05DATE FINISHED: 12-29-05QUAD/UNIT: N SEC: 28 TWP: 31N RNG: 11W PM: NM CNTY: SJ ST: NMQTR/FOOTAGE: 1180 FSL x 1500 FWL <sup>SESW</sup> CONTRACTOR: PXSENVIRONMENTAL SPECIALIST: JCBEXCAVATION APPROX. 19 FT. x 15 FT. x 17 FT. DEEP. CUBIC YARDAGE: 170 ±DISPOSAL FACILITY: BP - CROUCH MESA L.F. REMEDIATION METHOD: EXCAVATELAND USE: RANGE - BLM LEASE: SE-078097 FORMATION: PC**FIELD NOTES & REMARKS:**PIT LOCATED APPROXIMATELY 21 FT. N11W FROM WELLHEAD.DEPTH TO GROUNDWATER: >100 NEAREST WATER SOURCE: >1000 NEAREST SURFACE WATER: >200NMOCD RANKING SCORE: 10 NMOCD TPH CLOSURE STD: 1000 PPM**SOIL AND EXCAVATION DESCRIPTION:**
OVM CALIB. READ. = 52.7 ppm  
OVM CALIB. GAS = 100 ppm RF = 0.52  
TIME: 0830 am/pm DATE: 12-29-05
SOIL TYPE: SAND / SILTY SAND / SILT / SILTY CLAY / CLAY / GRAVEL / OTHER BEDROCK SANDSTONE @ 17'SOIL COLOR: Mix toCOHESION (ALL OTHERS): NON COHESIVE / SLIGHTLY COHESIVE / COHESIVE / HIGHLY COHESIVECONSISTENCY (NON COHESIVE SOILS): LOOSE / FIRM / DENSE / VERY DENSE

PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC

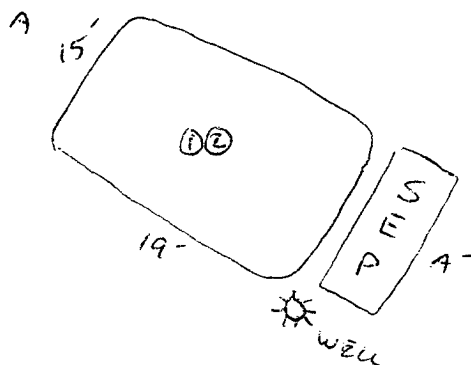
DENSITY (COHESIVE CLAYS &amp; SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARD

MOISTURE: DRY / SLIGHTLY MOIST / MOIST / WET / SATURATED / SUPER SATURATEDDISCOLORATION/STAINING OBSERVED: YES / NO EXPLANATION - Gray silt/clay on East side 4'-16'HC ODOR DETECTED: YES / NO EXPLANATION - ModerateSAMPLE TYPE: GRAB / COMPOSITE - # OF PTS. —

ADDITIONAL COMMENTS:

9' x 9' x 2' Deep Earthen Pit. Use Trackhoeto Remove IMPACTED SOILS to Bedrock Sandstone @ 17'Below Grade**SCALE****FIELD 418.1 CALCULATIONS**

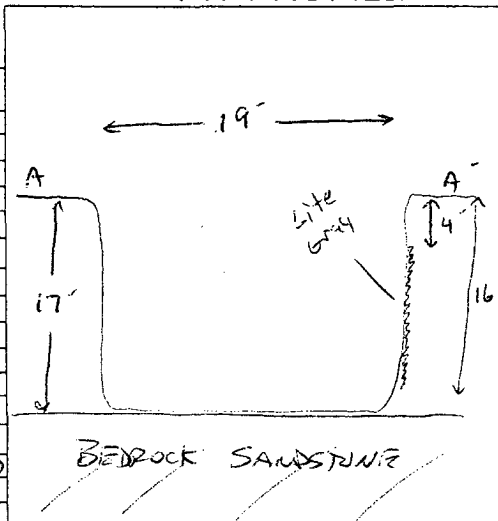
SAMP. TIME	SAMP. ID	LAB NO.	WEIGHT (g)	mL FREON	DILUTION	READING	CALC. (ppm)

**PIT PERIMETER****PIT PROFILE****OVM READING**

SAMPLE ID	FIELD HEADSPACE (ppm)
1 @ 11'	420
2 @ 17'	138
3 @	
4 @	
5 @	

**LAB SAMPLES**

SAMPLE ID	ANALYSIS	TIME
2 @ 17'	TPH	1530
	BPE	
	CL	
	<u>PASSED</u>	


P.D. = PIT DEPRESSION; B.G. = BELOW GRADE; B = BELOW  
T.H. = TEST HOLE; ~ = APPROX.; T.B. = TANK BOTTOM

TRAVEL NOTES:

CALLOUT:  ONSITE: 12-29-05

# 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:	2 @ 17'	Date Reported:	01-04-06
Laboratory Number:	35602	Date Sampled:	12-29-05
Chain of Custody No:	14608	Date Received:	01-03-06
Sample Matrix:	Soil	Date Extracted:	01-03-06
Preservative:	Cool	Date Analyzed:	01-04-06
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

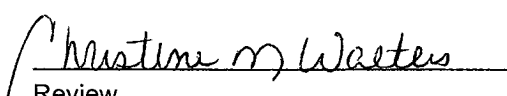
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

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: **Heaton LS 31 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:	2 @ 17'	Date Reported:	01-04-06
Laboratory Number:	35602	Date Sampled:	12-29-05
Chain of Custody:	14608	Date Received:	01-03-06
Sample Matrix:	Soil	Date Analyzed:	01-04-06
Preservative:	Cool	Date Extracted:	01-03-06
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	1.8
Toluene	ND	1.7
Ethylbenzene	2.5	1.5
p,m-Xylene	26.5	2.2
o-Xylene	8.0	1.0
Total BTEX	37.0	

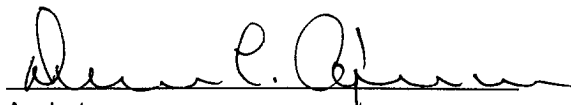
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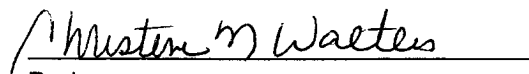
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	97.0 %
	1,4-difluorobenzene	97.0 %
	Bromochlorobenzene	97.0 %

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: Heaton LS 31 Sep Pit.

  
Analyst

  
Review

## Chloride

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	2 @ 17'	Date Reported:	01-04-06
Lab ID#:	35602	Date Sampled:	12-29-05
Sample Matrix:	Soil	Date Received:	01-03-06
Preservative:	Cool	Date Analyzed:	01-03-06
Condition:	Cool and Intact	Chain of Custody:	14608

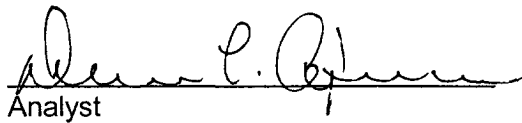
Parameter	Concentration (mg/Kg)
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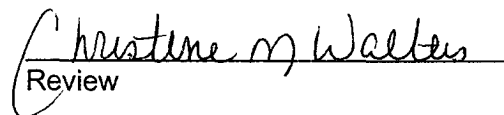
Total Chloride

23.8

Reference: Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Heaton LS 31 Sep Pit.

  
Analyst

  
Review