

3R – 465

GWMR

01 / 24 / 2011

3R-465

1200 French Dr., Hobbs, NM 88240
1200 Grand Avenue, Artesia, NM 88210
1200 El Estero Road, Aztec, NM 87410
1200 S. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-141
Revised October 10, 2003

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

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company	BP America Production Company	Contact	Jeff Peace
Address	200 Energy Court, Farmington, NM 87410	Telephone No.	(505) 326-9279
Facility Name	Archuleta Gas Com A #4	Facility Type	Active gas well 30-045-20977

Surface Owner: Telesforo Archuleta, Trustees	Mineral Owner	Lease No. Fee
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LOCATION OF RELEASE

Well Name	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	S	29.0N	9.0W					San Juan

Latitude 36.750950 Longitude -107.806213

NATURE OF RELEASE

Type of Release: Historical	Volume of Release: Unknown	Volume Recovered: 0
Source of Release: Possibly abandoned earthen pit	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: 03/08/07 - 11:00am

Was a State Notice Given? Yes No Not Required
If YES, To Whom?

Was a Watercourse Reached? Yes No
Date and Hour

If YES, Volume Impacting the Watercourse.

The Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
ER hired construction crew to remove above-grade tank in March 2007. Upon instructed task, a test hole was advanced and discolored, impacted soils were discovered. Soil sampled, field screened, laboratory tested in March 2007. Since impact appeared to be historical in nature, no immediate remedial action was necessary.

Describe Area Affected and Cleanup Action Taken.*
Remediation & excavation of impacted soils completed in May 2009 (see attached site map). Groundwater monitor well installed and sampled in May 2009. Analytical data attached. CLOSURE REQUESTED.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other Federal, state, or local laws and/or regulations.

Signature: <i>Jeff Peace</i>	OIL CONSERVATION DIVISION		
Printed Name: Jeff Peace	Approved by District Supervisor:		
Title: Environmental Advisor	Approval Date:	Expiration Date:	
Email Address: Peace.Jeffrey@bp.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 01/24/11	Phone: (505) 326-9279		

Attach Additional Sheets If Necessary

CLIENT: BP

BLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199

LOCATION NO: _____
COCR NO: 2194

FIELD REPORT: PIT CLOSURE VERIFICATION

PAGE No: 1 of _____

LOCATION: NAME: ARCHULETA GCA WELL# 4 TYPE: DRIP TANK
QUAD/UNIT: K SEC: S TWP: 29N RNG: 9W PM: NM CNTY: SJ ST: NM
QTR/FOOTAGE: _____ CONTRACTOR: HDI - Lynell

DATE STARTED: 3-2-07
DATE FINISHED: _____
ENVIRONMENTAL SPECIALIST: JLB

EXCAVATION APPROX. NA FT. x NA FT. x NA FT. DEEP. CUBIC YARDAGE: 0
DISPOSAL FACILITY: NA REMEDIATION METHOD: NA
LAND USE: FEE - PASTURE LEASE: FEE FORMATION: PC

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 75 FT. NORTH FROM WELLHEAD.
DEPTH TO GROUNDWATER: <50 NEAREST WATER SOURCE: >1000 NEAREST SURFACE WATER: >1000
NMOGD RANKING SCORE: 20 NMOGD TPH CLOSURE STD: 100 PPM

SOIL AND EXCAVATION DESCRIPTION:

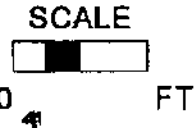
OVM CALIB. READ. = 53.6 ppm
OVM CALIB. GAS = 100 ppm RF = 0.52
TIME: 1125 am DATE: 3/2

SOIL TYPE: SAND / SILTY SAND / SILT / SILTY CLAY / CLAY / GRAVEL / OTHER _____
SOIL COLOR: DARK TAN
COHESION (ALL OTHERS): NON COHESIVE / SLIGHTLY COHESIVE / COHESIVE / HIGHLY COHESIVE
CONSISTENCY (NON COHESIVE SOILS): LOOSE / FIRM / 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: DRY / SLIGHTLY MOIST / MOIST / WET / SATURATED / SUPER SATURATED
DISCOLORATION/STAINING OBSERVED: YES NO EXPLANATION - GRAY STREAKING
ODOR DETECTED: YES NO EXPLANATION - MODERATE
SAMPLE TYPE: GRAB / COMPOSITE - # OF PTS. _____
ADDITIONAL COMMENTS: 8' DIA x 2' TALL steel tank sitting on SURFACE MOVE TANK & collect SAMPLE WITH BACKHOE

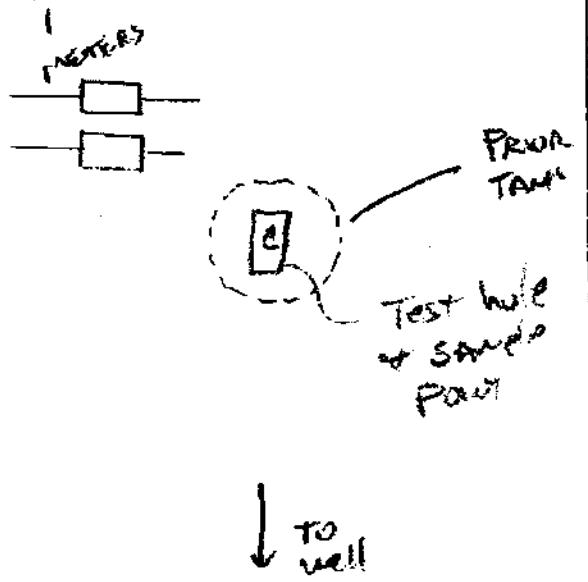
NEED ADDITIONAL INVESTIGATION

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 @	
2 @	
3 @	
4 @	
5 @	
C66'	161

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
C66'	TPH	1115
	BTEX	
	CL	

NA

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

TRAVEL NOTES:

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:	C @ 6'	Date Reported:	03-07-07
Laboratory Number:	40296	Date Sampled:	03-02-07
Chain of Custody No:	2194	Date Received:	03-06-07
Sample Matrix:	Soil	Date Extracted:	03-06-07
Preservative:	Cool	Date Analyzed:	03-07-07
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

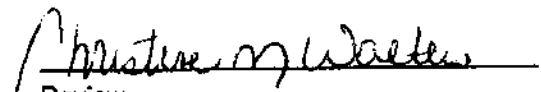
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	1,600	0.2
Diesel Range (C10 - C28)	356	0.1
Total Petroleum Hydrocarbons	1,960	0.2

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: Archuleta GC A #4 Drip Tank


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	C @ 6'	Date Reported:	03-07-07
Laboratory Number:	40286	Date Sampled:	03-02-07
Chain of Custody:	2194	Date Received:	03-06-07
Sample Matrix:	Soil	Date Analyzed:	03-07-07
Preservative:	Cool	Date Extracted:	03-06-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	1,780	1.8
Toluene	1,200	1.7
Ethylbenzene	4,950	1.5
p,m-Xylene	16,880	2.2
o-Xylene	1,270	1.0
Total BTEX	26,080	


ND - Parameter not detected at the stated detection limit.


Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	98.0 %
	1,4-difluorobenzene	98.0 %
	Bromochlorobenzene	98.0 %

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: Archuleta GC A #4 Drip Tank


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

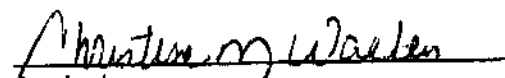
Chloride

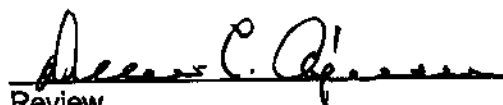
Client:	Blagg / BP	Project #:	94034-010
Sample ID:	C @ 6'	Date Reported:	03-07-07
Lab ID#:	40296	Date Sampled:	03-02-07
Sample Matrix:	Soil	Date Received:	03-06-07
Preservative:	Cool	Date Analyzed:	03-06-07
Condition:	Cool and Intact	Chain of Custody:	2194

Parameter	Concentration (mg/Kg)
Total Chloride	18.0

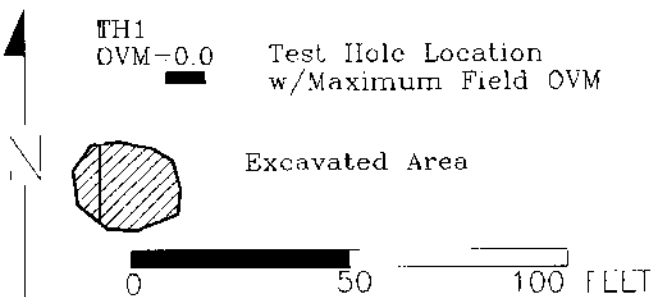
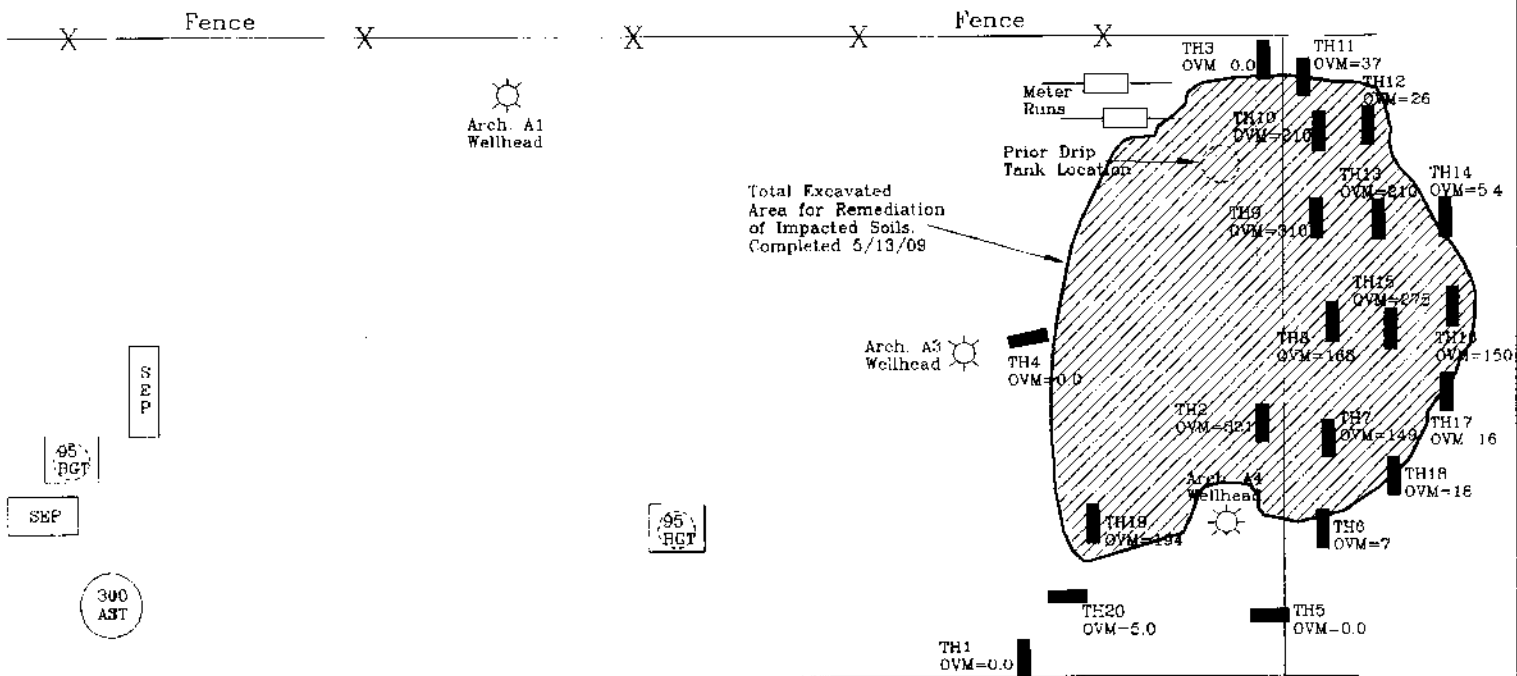
Reference: Standard Methods For The Examination of Water And Waste Water[®], 18th ed., 1992.

Comments: Archuleta GC A #4 Drip Tank


Analyst


Review

ACCESS ROAD



BP - America
 ARCHULETA A3/A4
 SAN JUAN CO., NEW MEXICO

MAY 2009

BLAGG ENGINEERING, INC.

CONSULTING ENGINEERING SERVICES

P.O. BOX 87
 BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1199

AREA SCHEMATIC

FIGURE 1.3 DRWN BY: JCB

Arch-A3/A4 PROJ MGR: JCB

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

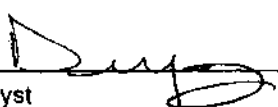
Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #1 @ 4'	Date Reported:	04-28-09
Laboratory Number:	49754	Date Sampled:	04-22-09
Chain of Custody No:	6859	Date Received:	04-23-09
Sample Matrix:	Soil	Date Extracted:	04-24-09
Preservative:	Cool	Date Analyzed:	04-27-09
Condition:	Intact	Analysis Requested:	8015 TPH

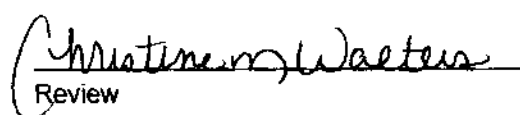
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

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: **Archuleta A #3**


Analyst


Review

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #1 @ 4'	Date Reported:	04-28-09
Laboratory Number:	49754	Date Sampled:	04-22-09
Chain of Custody:	6859	Date Received:	04-23-09
Sample Matrix:	Soil	Date Analyzed:	04-27-09
Preservative:	Cool	Date Extracted:	04-24-09
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	1.5	0.9
Toluene	5.0	1.0
Ethylbenzene	5.4	1.0
p,m-Xylene	10.5	1.2
o-Xylene	7.4	0.9
Total BTEX	29.8	

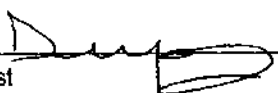
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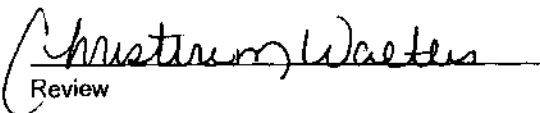
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	97.0 %
	1,4-difluorobenzene	97.0 %
	Bromochlorobenzene	97.0 %

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: Archuleta A #3

Analyst 

Review 

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #1 @ 4'	Date Reported:	04-28-09
Laboratory Number:	49754	Date Sampled:	04-22-09
Chain of Custody No:	6859	Date Received:	04-23-09
Sample Matrix:	Soil	Date Extracted:	04-24-09
Preservative:	Cool	Date Analyzed:	04-24-09
Condition:	Intact	Analysis Needed:	TPH-418.1

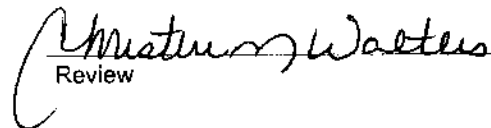
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	18.1	9.7

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Archuleta A #3.**

Analyst 


Review 

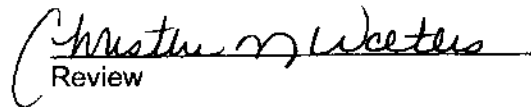
Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #1 @ 4'	Date Reported:	04-29-09
Lab ID#:	49754	Date Sampled:	04-22-09
Sample Matrix:	Soil	Date Received:	04-23-09
Preservative:	Cool	Date Analyzed:	04-29-09
Condition:	Intact	Chain of Custody:	6859

Parameter	Concentration (mg/Kg)
Total Chloride	14

Reference: U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Archuleta A #3.**


Analyst


Review

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


Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #2 @ 4'	Date Reported:	04-28-09
Laboratory Number:	49755	Date Sampled:	04-22-09
Chain of Custody No:	6859	Date Received:	04-23-09
Sample Matrix:	Soil	Date Extracted:	04-24-09
Preservative:	Cool	Date Analyzed:	04-27-09
Condition:	Intact	Analysis Requested:	8015 TPH

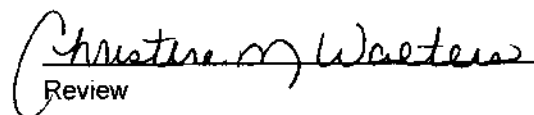
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	412	0.2
Diesel Range (C10 - C28)	273	0.1
Total Petroleum Hydrocarbons	685	0.2

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: **Archuleta A #3**


Analyst


Review

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #2 @ 4'	Date Reported:	04-28-09
Laboratory Number:	49755	Date Sampled:	04-22-09
Chain of Custody No:	6859	Date Received:	04-23-09
Sample Matrix:	Soil	Date Extracted:	04-24-09
Preservative:	Cool	Date Analyzed:	04-24-09
Condition:	Intact	Analysis Needed:	TPH-418.1

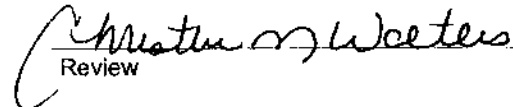
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	1,270	9.7

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: Archuleta A #3.

Analyst 

Review 

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #2 @ 4'	Date Reported:	04-28-09
Laboratory Number:	49755	Date Sampled:	04-22-09
Chain of Custody:	6859	Date Received:	04-23-09
Sample Matrix:	Soil	Date Analyzed:	04-27-09
Preservative:	Cool	Date Extracted:	04-24-09
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	148	0.9
Toluene	597	1.0
Ethylbenzene	491	1.0
p,m-Xylene	7,690	1.2
o-Xylene	1,260	0.9
Total BTEX	10,200	

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.

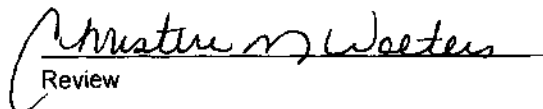
Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Archuleta A #3**

Analyst



Review




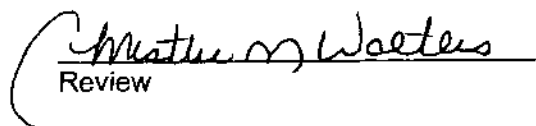
Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #2 @ 4'	Date Reported:	04-29-09
Lab ID#:	49755	Date Sampled:	04-22-09
Sample Matrix:	Soil	Date Received:	04-23-09
Preservative:	Cool	Date Analyzed:	04-29-09
Condition:	Intact	Chain of Custody:	6859

Parameter	Concentration (mg/Kg)
Total Chloride	8

Reference: U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Archuleta A #3.**

Analyst 


Review

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

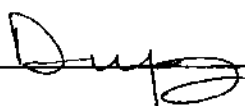
Client:	Biagg/BP	Project #:	94034-0010
Sample ID:	TH #2 @ 6'	Date Reported:	04-28-09
Laboratory Number:	49756	Date Sampled:	04-22-09
Chain of Custody No:	6859	Date Received:	04-23-09
Sample Matrix:	Soil	Date Extracted:	04-24-09
Preservative:	Cool	Date Analyzed:	04-27-09
Condition:	Intact	Analysis Requested:	8015 TPH

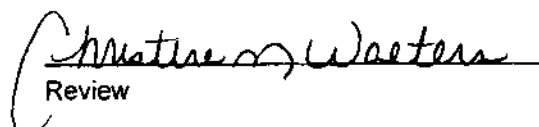
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	281	0.2
Diesel Range (C10 - C28)	139	0.1
Total Petroleum Hydrocarbons	420	0.2

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: **Archuleta A #3**

Analyst 

Review 

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #2 @ 6'	Date Reported:	04-28-09
Laboratory Number:	49756	Date Sampled:	04-22-09
Chain of Custody No:	6859	Date Received:	04-23-09
Sample Matrix:	Soil	Date Extracted:	04-24-09
Preservative:	Cool	Date Analyzed:	04-24-09
Condition:	Intact	Analysis Needed:	TPH-418.1

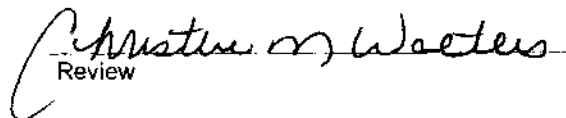
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	1,120	9.7

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Archuleta A #3.**

Analyst 

Review 

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #2 @ 6'	Date Reported:	04-28-09
Laboratory Number:	49756	Date Sampled:	04-22-09
Chain of Custody:	6859	Date Received:	04-23-09
Sample Matrix:	Soil	Date Analyzed:	04-27-09
Preservative:	Cool	Date Extracted:	04-24-09
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	109	0.9
Toluene	403	1.0
Ethylbenzene	277	1.0
p,m-Xylene	6,170	1.2
o-Xylene	743	0.9
Total BTEX	7,700	

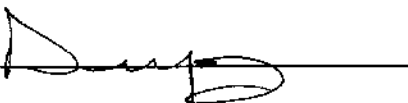
ND - Parameter not detected at the stated detection limit.

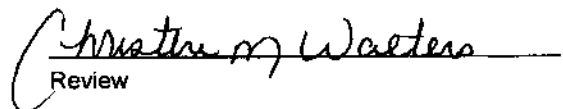
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	98.0 %
	1,4-difluorobenzene	98.0 %
	Bromochlorobenzene	98.0 %

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: **Archuleta A #3**

Analyst 

Review 

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #2 @ 6'	Date Reported:	04-29-09
Lab ID#:	49756	Date Sampled:	04-22-09
Sample Matrix:	Soil	Date Received:	04-23-09
Preservative:	Cool	Date Analyzed:	04-29-09
Condition:	Intact	Chain of Custody:	6859

Parameter	Concentration (mg/Kg)
Total Chloride	18

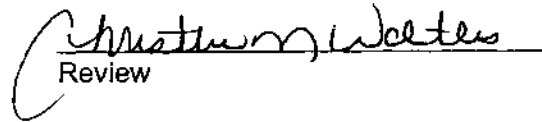
Reference: U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Archuleta A #3.**

Analyst



Review



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

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #2 @ 7'	Date Reported:	04-28-09
Laboratory Number:	49757	Date Sampled:	04-22-09
Chain of Custody No:	6859	Date Received:	04-23-09
Sample Matrix:	Soil	Date Extracted:	04-24-09
Preservative:	Cool	Date Analyzed:	04-27-09
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	56.5	0.2
Diesel Range (C10 - C28)	29.5	0.1
Total Petroleum Hydrocarbons	86.0	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: **Archuleta A #3**

Analyst

Review

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #2 @ 7'	Date Reported:	04-28-09
Laboratory Number:	49757	Date Sampled:	04-22-09
Chain of Custody No:	6859	Date Received:	04-23-09
Sample Matrix:	Soil	Date Extracted:	04-24-09
Preservative:	Cool	Date Analyzed:	04-24-09
Condition:	Intact	Analysis Needed:	TPH-418.1

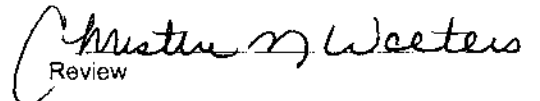
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	115	9.7

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Archuleta A #3.**

Analyst 

Review 

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #2 @ 7'	Date Reported:	04-28-09
Laboratory Number:	49757	Date Sampled:	04-22-09
Chain of Custody:	6859	Date Received:	04-23-09
Sample Matrix:	Soil	Date Analyzed:	04-27-09
Preservative:	Cool	Date Extracted:	04-24-09
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	19.8	0.9
Toluene	118	1.0
Ethylbenzene	113	1.0
p,m-Xylene	1,620	1.2
o-Xylene	337	0.9
Total BTEX	2,210	

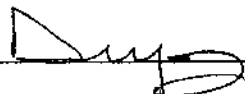
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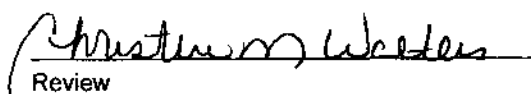
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99.0 %
	1,4-difluorobenzene	99.0 %
	Bromochlorobenzene	99.0 %

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: Archuleta A #3

Analyst 

Review 

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #2 @ 7'	Date Reported:	04-29-09
Lab ID#:	49757	Date Sampled:	04-22-09
Sample Matrix:	Soil	Date Received:	04-23-09
Preservative:	Cool	Date Analyzed:	04-29-09
Condition:	Intact	Chain of Custody:	6859

Parameter

Concentration (mg/Kg)

Total Chloride

4

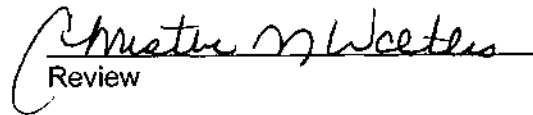
Reference: U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Archuleta A #3.**

Analyst



Review



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

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #3 @ 6'	Date Reported:	04-28-09
Laboratory Number:	49758	Date Sampled:	04-22-09
Chain of Custody No:	6859	Date Received:	04-23-09
Sample Matrix:	Soil	Date Extracted:	04-24-09
Preservative:	Cool	Date Analyzed:	04-27-09
Condition:	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: **Archuleta A #3**

Analyst

Review

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #3 @ 6'	Date Reported:	04-28-09
Laboratory Number:	49758	Date Sampled:	04-22-09
Chain of Custody No:	6859	Date Received:	04-23-09
Sample Matrix:	Soil	Date Extracted:	04-24-09
Preservative:	Cool	Date Analyzed:	04-24-09
Condition:	Intact	Analysis Needed:	TPH-418.1

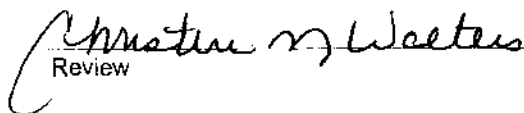
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	16.9	9.7

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Archuleta A #3.**

Analyst 


 Review

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #3 @ 6'	Date Reported:	04-28-09
Laboratory Number:	49758	Date Sampled:	04-22-09
Chain of Custody:	6858	Date Received:	04-23-09
Sample Matrix:	Soil	Date Analyzed:	04-27-09
Preservative:	Cool	Date Extracted:	04-24-09
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	1.0	0.9
Toluene	6.3	1.0
Ethylbenzene	3.3	1.0
p,m-Xylene	34.5	1.2
o-Xylene	10.6	0.9
Total BTEX	55.7	

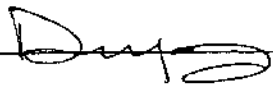
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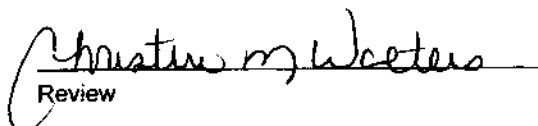
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	98.0 %
	1,4-difluorobenzene	98.0 %
	Bromochlorobenzene	98.0 %

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: Archuleta A #3

Analyst 

Review 

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #3 @ 6'	Date Reported:	04-29-09
Lab ID#:	49758	Date Sampled:	04-22-09
Sample Matrix:	Soil	Date Received:	04-23-09
Preservative:	Cool	Date Analyzed:	04-29-09
Condition:	Intact	Chain of Custody:	6859

Parameter

Concentration (mg/Kg)

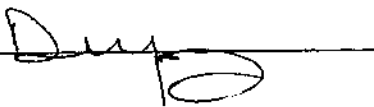
Total Chloride

6

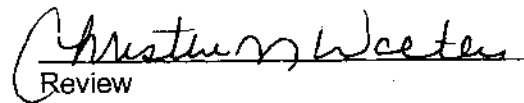
Reference: U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Archuleta A #3.

Analyst



Review



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

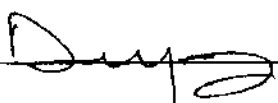
Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #4 @ 6'	Date Reported:	04-28-09
Laboratory Number:	49759	Date Sampled:	04-22-09
Chain of Custody No:	6859	Date Received:	04-23-09
Sample Matrix:	Soil	Date Extracted:	04-24-09
Preservative:	Cool	Date Analyzed:	04-27-09
Condition:	Intact	Analysis Requested:	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

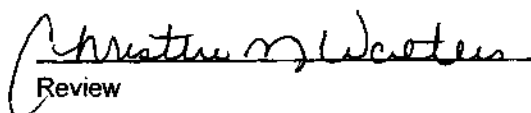
ND - Parameter not detected at the stated detection limit.

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

Comments: **Archuleta A #3**



Analyst



Review

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #4 @ 6'	Date Reported:	04-28-09
Laboratory Number:	49759	Date Sampled:	04-22-09
Chain of Custody No:	6859	Date Received:	04-23-09
Sample Matrix:	Soil	Date Extracted:	04-24-09
Preservative:	Cool	Date Analyzed:	04-24-09
Condition:	Intact	Analysis Needed:	TPH-418.1

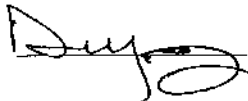
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	19.3	9.7

ND = Parameter not detected at the stated detection limit.

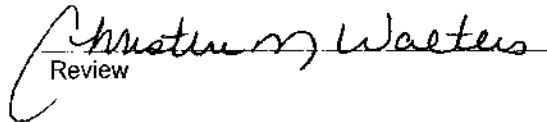
References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: Archuleta A #3.

Analyst



Review



Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #4 @ 6'	Date Reported:	04-28-09
Laboratory Number:	49759	Date Sampled:	04-22-09
Chain of Custody:	6859	Date Received:	04-23-09
Sample Matrix:	Soil	Date Analyzed:	04-27-09
Preservative:	Cool	Date Extracted:	04-24-09
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	0.9
Toluene	3.3	1.0
Ethylbenzene	1.3	1.0
p,m-Xylene	6.9	1.2
o-Xylene	3.3	0.9
Total BTEX	14.8	

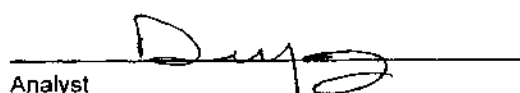
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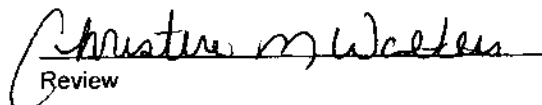
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	98.0 %
	1,4-difluorobenzene	98.0 %
	Bromochlorobenzene	98.0 %

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: Archuleta A #3


Analyst


Review

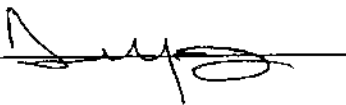
Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #4 @ 6'	Date Reported:	04-29-09
Lab ID#:	49759	Date Sampled:	04-22-09
Sample Matrix:	Soil	Date Received:	04-23-09
Preservative:	Cool	Date Analyzed:	04-29-09
Condition:	Intact	Chain of Custody:	6859

Parameter	Concentration (mg/Kg)
Total Chloride	10

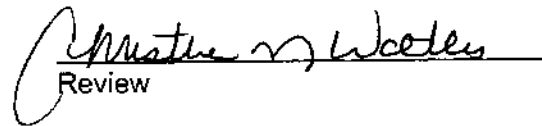
Reference: U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Archuleta A #3.**

Analyst



Review



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

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #5 @ 6'	Date Reported:	04-28-09
Laboratory Number:	49760	Date Sampled:	04-22-09
Chain of Custody No:	6859	Date Received:	04-23-09
Sample Matrix:	Soil	Date Extracted:	04-24-09
Preservative:	Cool	Date Analyzed:	04-27-09
Condition:	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: **Archuleta A #3**

Analyst

Review

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #5 @ 6'	Date Reported:	04-28-09
Laboratory Number:	49760	Date Sampled:	04-22-09
Chain of Custody No:	6859	Date Received:	04-23-09
Sample Matrix:	Soil	Date Extracted:	04-24-09
Preservative:	Cool	Date Analyzed:	04-24-09
Condition:	Intact	Analysis Needed:	TPH-418.1

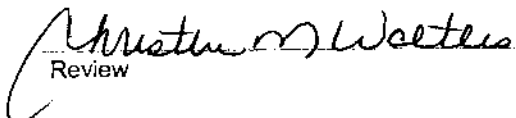
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	16.9	9.7

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Archuleta A #3.**

Analyst 

Review 

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #5 @ 6'	Date Reported:	04-28-09
Laboratory Number:	49760	Date Sampled:	04-22-09
Chain of Custody:	6859	Date Received:	04-23-09
Sample Matrix:	Soil	Date Analyzed:	04-27-09
Preservative:	Cool	Date Extracted:	04-24-09
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	1.0	0.9
Toluene	2.0	1.0
Ethylbenzene	1.1	1.0
p,m-Xylene	2.9	1.2
o-Xylene	2.0	0.9
Total BTEX	9.0	

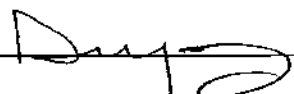
ND - Parameter not detected at the stated detection limit.

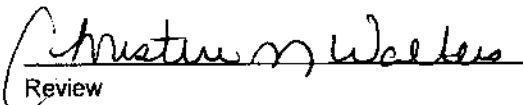
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	97.0 %
	1,4-difluorobenzene	97.0 %
	Bromochlorobenzene	97.0 %

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: Archuleta A #3

Analyst 

Review 

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	TH #5 @ 6'	Date Reported:	04-29-09
Lab ID#:	49760	Date Sampled:	04-22-09
Sample Matrix:	Soil	Date Received:	04-23-09
Preservative:	Cool	Date Analyzed:	04-29-09
Condition:	Intact	Chain of Custody:	6859

Parameter

Concentration (mg/Kg)

Total Chloride

32

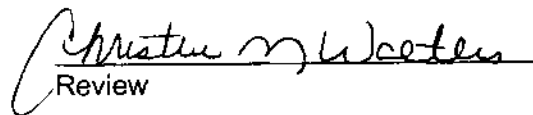
Reference: U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Archuleta A #3.**

Analyst



Review



CHAIN OF CUSTODY RECORD

6859

Client: BLAGG/BP		Project Name / Location: ARCHULETA A #3				ANALYSIS / PARAMETERS																
Client Address:		Sampler Name: J. BLAGG				TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)	CHLORIDE					Sample Cool	Sample Intact	
Client Phone No.:		Client No.: 94034-010																				
Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative																
TH #1 @ 4'	4/22/09	1123	49754	Soil Solid Sludge Aqueous	1-403			X	X					X	X						✓	✓
TH #2 @ 4'	"	1150	49755	Soil Solid Sludge Aqueous	"			X	X					X	X						✓	✓
TH #2 @ 6'	"	1200	49756	Soil Solid Sludge Aqueous	"			X	X					X	X						✓	✓
TH #2 @ 7'	"	1204	49757	Soil Solid Sludge Aqueous	"			X	X					X	X						✓	✓
TH #3 @ 6'	"	1324	49758	Soil Solid Sludge Aqueous	"			X	X					X	X						✓	✓
TH #4 @ 6'	"	1356	49759	Soil Solid Sludge Aqueous	"			X	X					X	X						✓	✓
TH #5 @ 6'	"	1425	49760	Soil Solid Sludge Aqueous	"			X	X					X	X						✓	✓
				Soil Solid Sludge Aqueous																		
				Soil Solid Sludge Aqueous																		
				Soil Solid Sludge Aqueous																		

Relinquished by: (Signature) <i>J. Blagg</i>	Date 4/23/09	Time 1505	Received by: (Signature) <i>[Signature]</i>	Date 4/23/09	Time 1505
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	04-27-09 QA/QC	Date Reported:	04-28-09
Laboratory Number:	49754	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-27-09
Condition:	N/A	Analysis Requested:	TPH

Gasoline Range C5 - C10	05-07-07	9.6936E+002	9.6975E+002	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	9.5526E+002	9.5564E+002	0.04%	0 - 15%

Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

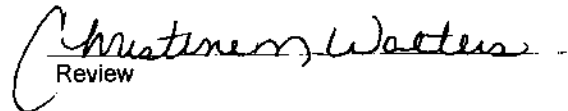
Gasoline Range C5 - C10	ND	250	245	98.0%	75 - 125%
Diesel Range C10 - C28	ND	250	239	95.6%	75 - 125%

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 Sample 49754 - 49762 and 49791.

Analyst 

Review 

Client:	N/A	Project #:	N/A
Sample ID:	04-27-BT QA/QC	Date Reported:	04-28-09
Laboratory Number:	49754	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-27-09
Condition:	N/A	Analysis:	BTEX

Benzene	6.6909E+006	6.7043E+006	0.2%	ND	0.1
Toluene	6.2181E+006	6.2306E+006	0.2%	ND	0.1
Ethylbenzene	5.4666E+006	5.4776E+006	0.2%	ND	0.1
p,m-Xylene	1.4442E+007	1.4471E+007	0.2%	ND	0.1
o-Xylene	5.2607E+006	5.2712E+006	0.2%	ND	0.1


Benzene	1.5	1.5	0.0%	0 - 30%	0.9
Toluene	5.0	4.6	8.0%	0 - 30%	1.0
Ethylbenzene	5.4	5.2	3.7%	0 - 30%	1.0
p,m-Xylene	10.5	9.8	6.7%	0 - 30%	1.2
o-Xylene	7.4	7.0	5.4%	0 - 30%	0.9

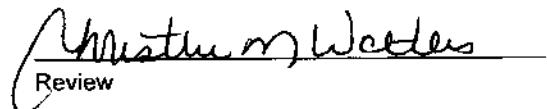
Benzene	1.5	50.0	50.0	97.1%	39 - 150
Toluene	5.0	50.0	52.6	95.6%	46 - 148
Ethylbenzene	5.4	50.0	54.3	98.0%	32 - 160
p,m-Xylene	10.5	100	109	98.5%	46 - 148
o-Xylene	7.4	50.0	54.4	94.8%	46 - 148

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 49754 - 49761 and 49791

Analyst 

Review 

Client:	QA/QC	Project #:	N/A
Sample ID:	QA/QC	Date Reported:	04-27-09
Laboratory Number:	04-24-TPH.QA/QC 49753	Date Sampled:	N/A
Sample Matrix:	Freon-113	Date Analyzed:	04-24-09
Preservative:	N/A	Date Extracted:	04-24-09
Condition:	N/A	Analysis Needed:	TPH

Calibration	I-Cal Date	C-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
	04-06-09	04-24-09	1,510	1,560	3.3%	+/- 10%

Blank Conc. (mg/Kg)	Concentration	Detection Limit
TPH	ND	9.7

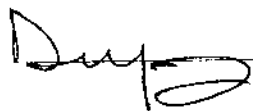
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
TPH	20.5	18.1	11.7%	+/- 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
TPH	20.5	2,000	1,690	83.6%	80 - 120%

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: QA/QC for Samples 49753 - 49760 and 49791.

Analyst 

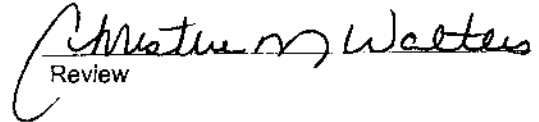
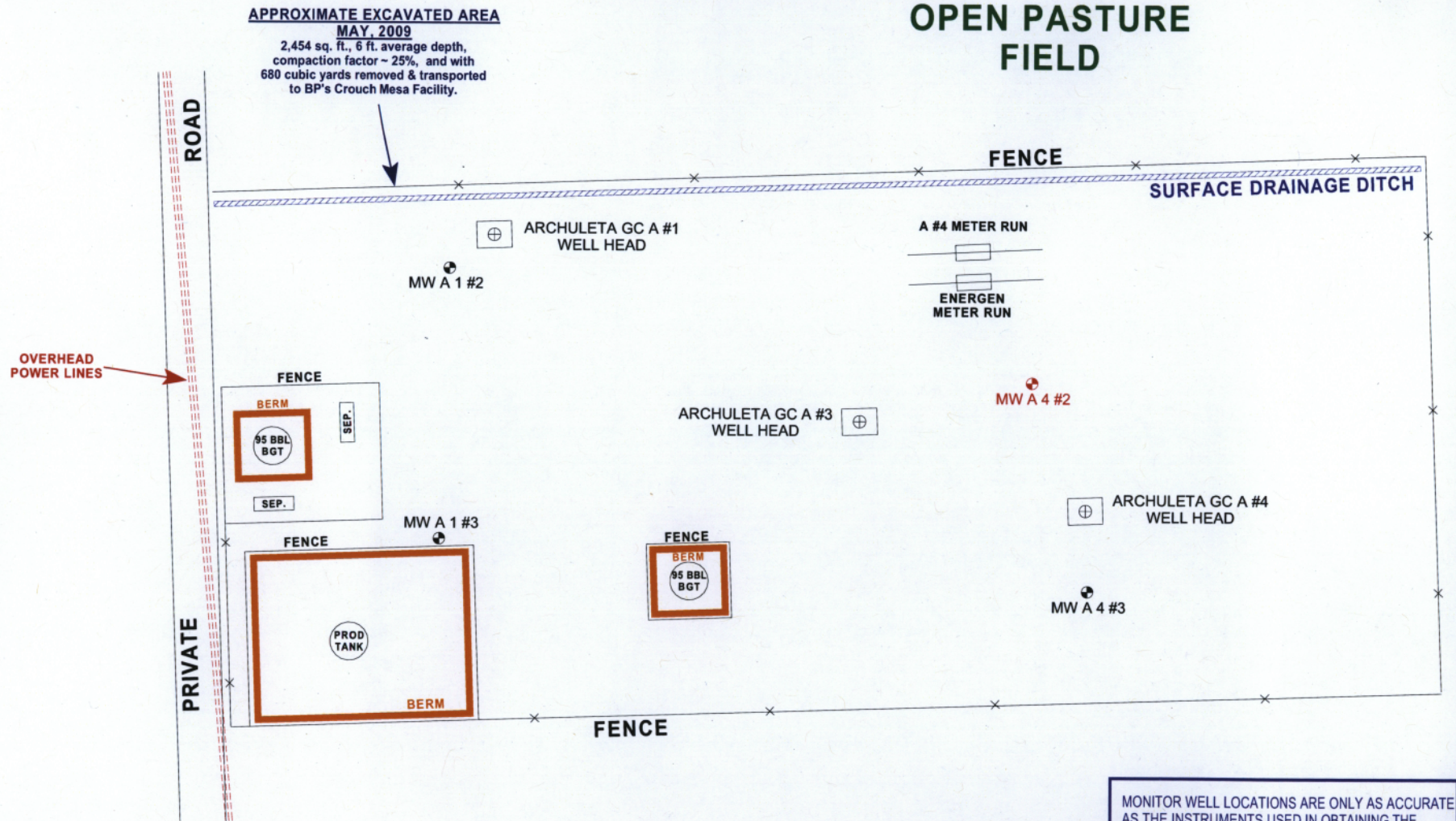
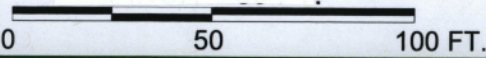
Review 

FIGURE 2



MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE & BEARING FROM THE WELL HEAD (TAPE MEASURE, LASER RANGE FINDER, & BRUNTON COMPASS). ALL OTHER STRUCTURES DISPLAYED ON THIS MAP ARE SOLELY FOR REFERENCE AND MAY NOT BE TO SCALE.



BP AMERICA PRODUCTION CO.
ARCHULETA GC A # 4
NE/4 SW/4 SEC. 5, T29N, R9W
SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.
 CONSULTING PETROLEUM / RECLAMATION SERVICES
 P.O. BOX 87
 BLOOMFIELD, NEW MEXICO 87413
 PHONE: (505) 632-1199

PROJECT: MW SAMPLING
 DRAWN BY: NJV
 FILENAME: ARCHULETA GC A 4 07-28-10.SKF
 REVISED: 09-28-10

SITE MAP
 07/10

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : **BP AMERICA PROD. CO.**

CHAIN-OF-CUSTODY # : N / A

ARCHULETA GC A # 1 / A # 4
UNIT K , SEC. 5 , T29N , R9W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : July 28, 2010

DEVELOPER / SAMPLER : NJ V

Filename : 07-28-10.WK4

PROJECT MANAGER : J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
A4 #2	101.79	98.66	3.13	11.92	0950	N / A	1,100	23.3	4.25
A4 #3	101.58	98.38	3.20	13.19	-	-	-	-	-
A1 #2	103.75	100.11	3.64	12.63	-	-	-	-	-
A1 #3	102.71	99.46	3.25	12.53	-	-	-	-	-

INSTRUMENT CALIBRATIONS =	-	2,800
DATE & TIME =	07/26/09	1630

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3$ (wellbores).
 (i.e. 2" MW $r = (1/12) \text{ ft. } h = 1 \text{ ft.}$) (i.e. 4" MW $r = (2/12) \text{ ft. } h = 1 \text{ ft.}$)

Ideally a minimum of three (3) wellbore volumes:

2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2".

MW A 4 # 2 - excellent recovery , olive gray color in appearance ,	Detph to water below grade
Samples from MW A 4 # 2 analyzed for BTEX per US EPA Method 8021B .	A4 #2 1.13
	A4 #3 0.70
Monitor well top elevations surveyed on 7 / 28 / 10 .	A1 #2 1.34
Top of casing MW A 4 # 3 ~ 2.50 ft. , MW A 1 # 2 ~ 2.30 ft. , MW A 1 # 3 ~ 2.20 ft. above grade .	A1 #3 1.05

Hall Environmental Analysis Laboratory, Inc.

Date: 04-Aug-10

CLIENT: Blagg Engineering
Lab Order: 1007A39
Project: Archuleta GC A #4
Lab ID: 1007A39-01**Client Sample ID:** MW#A4-2
Collection Date: 7/28/2010 9:50:00 AM
Date Received: 7/29/2010
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	8/3/2010 4:55:14 PM
Toluene	ND	1.0		µg/L	1	8/3/2010 4:55:14 PM
Ethylbenzene	1.9	1.0		µg/L	1	8/3/2010 4:55:14 PM
Xylenes, Total	9.1	2.0		µg/L	1	8/3/2010 4:55:14 PM
Surr: 4-Bromofluorobenzene	125	65.9-130		%REC	1	8/3/2010 4:55:14 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: Archuleta GC A #4

Work Order: 1007A39

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles											
Sample ID: 5ML RB		<i>MBLK</i>									
Batch ID: R40175 Analysis Date: 8/3/2010 9:20:14 AM											
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 100NG BTEX LCS		<i>LCS</i>									
Batch ID: R40175 Analysis Date: 8/3/2010 8:57:48 PM											
Benzene	19.79	µg/L	1.0	20	0	99.0	87.9	121			
Toluene	19.77	µg/L	1.0	20	0	98.9	83	124			
Ethylbenzene	19.78	µg/L	1.0	20	0	98.9	81.7	122			
Xylenes, Total	59.62	µg/L	2.0	60	0	99.4	85.6	121			

Qualifiers:

- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- H Holding times for preparation or analysis exceeded
- NC Non-Chlorinated
- R RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **BLAGG**

Date Received:

7/29/2010

Work Order Number **1007A39**

Received by:

AMG

Checklist completed by:

Ashley M Gallages
Signature

7/29/10
Date

Sample ID labels checked by:

AMG
Initials

Matrix:

Carrier name: Greyhound

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present Not Shipped
- Custody seals intact on sample bottles? Yes No N/A
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Water - VOA vials have zero headspace? Yes No VOA vials submitted Yes No
- Water - Preservation labels on bottle and cap match? Yes No N/A
- Water - pH acceptable upon receipt? Yes No N/A
- Container/Temp Blank temperature? **-1.2°** <6° C Acceptable if given sufficient time to cool.

Number of preserved bottles checked for pH: _____
<2 >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____