

NM2 - 3

**MONITORING
REPORTS
YEAR(S):**

2008

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

NM2-3

RECEIVED

2008 NOV 24 AM 11 56

SENT VIA CERTIFIED MAIL

November 21, 2008

Mr. Brad Jones
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: BP America Production Company
Crouch Mesa Waste Management Facility, Permit NM-02-003
Annual Report on Treatment Zone Monitoring

Dear Mr. Jones:

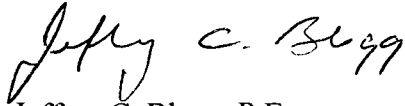
On behalf of BP America Production Company, Blagg Engineering, Inc. (BEI) is submitting 2008 annual treatment zone monitoring test results for the Crouch Mesa Waste Management Facility pursuant to Permit NM-02-003, dated November 25, 1998. This report is for the December 1, 2007 through November 30, 2008 reporting period. Analytical test results (attached) indicate the facility met standards with each sample event.

Sampling protocol specifies collection of subsurface samples in each cell from the native ground surface below the treatment zone during quarterly monitoring. Quarterly test procedures include total petroleum hydrocarbons (TPH), chloride and benzene, toluene, ethyl-benzene and xylenes (BTEX). Heavy metals and major cations/anions are to be collected for at least one quarterly sample event. During this reporting period, metals were tested on the June 23, 2008 sample event and cations/anions were tested on the September 29, 2008 and November 13, 2008 events.

The landfarm is presently configured into three (3) active cells, identified as Cell 1, Cell 2 and Cell 5 (Figure 1). The northeast portion of the facility (identified as 'unused cell') is used for equipment and materials storage only.

Questions or comments concerning this transmittal may be directed to myself at (505)632-1199 or Larry Schlotterback with BP at (505)326-9200.

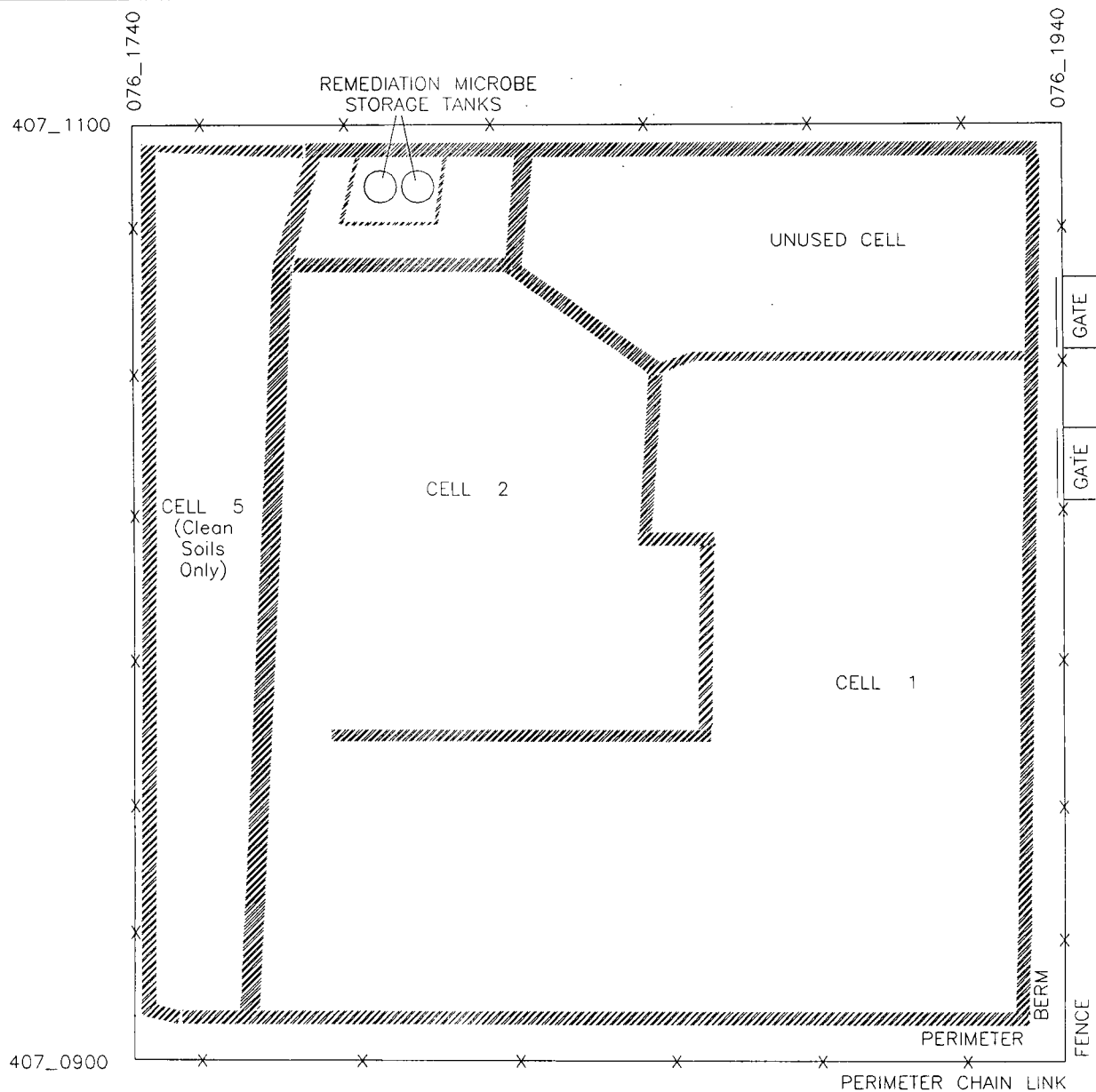
Respectfully submitted:
Blagg Engineering, Inc.



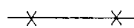
Jeffrey C. Blagg, P.E.
President

Attachments: Site Diagram
 Soil Treatment Zone Monitoring Reports

cc: Brandon Powell, NMOCD Aztec District Office
 Larry Schlotterback, BP San Juan Operations Center
 Jake Hatcher, IEI Farmington



LEGEND



6' TALL CHAIN LINK FENCE



SOIL BERM



0

200

400 FEET

BP AMERICA PRODUCTION CO.
CROUCH MESA WASTE MGMT FAC
SW/4 SE/4 SEC 2 T29N R12W
SAN JUAN CO., NEW MEXICO

NOVEMBER 2008

BLAGG ENGINEERING, INC.
CONSULTING ENGINEERING SERVICES

P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1199

SITE
SCHEMATIC

FIGURE 1

DRWN BY:
JCB

CRMES4

PROJ MGR:
JCB

4057

Client:		Project Name / Location:			ANALYSIS / PARAMETERS												Date		Time					
Blagg/BP		Crown Mesa L.F.			Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative		TPH (Method 8015)	BTX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)	CL	Sample Cool	Sample Intact
Client Address:		Sampler Name:		HgCl2							HNO3													
Client Phone No.:		Client No.:																						
Cell 1 @ 24 "		3/19/08	1015	44611	501L	1 - 4 oz				X	X										X		✓	✓
Cell 2 @ 12 "		"	1030	44612	"	"				X	X										X		✓	✓
Cell 5 @ 24 "		"	1050	44613	"	"				X	X										X		✓	✓

ENVIROTECH INC.

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	Cell 1 @ 24"	Date Reported:	03-26-08
Laboratory Number:	44611	Date Sampled:	03-19-08
Chain of Custody No:	4057	Date Received:	03-20-08
Sample Matrix:	Soil	Date Extracted:	03-24-08
Preservative:	Cool	Date Analyzed:	03-26-08
Condition:	Cool & Intact	Analysis Requested:	8015 TPH

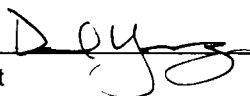
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	0.7	0.1
Total Petroleum Hydrocarbons	0.7	0.2

ND - Parameter not detected at the stated detection limit.

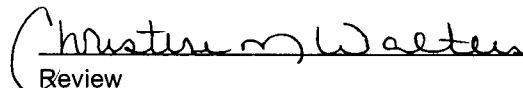
References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Crouch Mesa L.F.**

Analyst



Review



EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

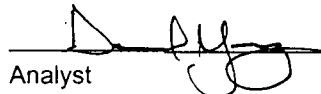
Client:	Blagg / BP	Project #:	94034-010
Sample ID:	Cell 2 @ 12"	Date Reported:	03-26-08
Laboratory Number:	44612	Date Sampled:	03-19-08
Chain of Custody No:	4057	Date Received:	03-20-08
Sample Matrix:	Soil	Date Extracted:	03-24-08
Preservative:	Cool	Date Analyzed:	03-26-08
Condition:	Cool & Intact	Analysis Requested:	8015 TPH

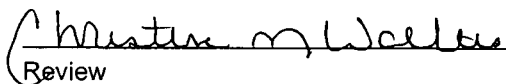
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

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: **Crouch Mesa L.F.**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

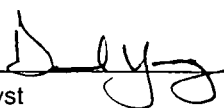
Client:	Blagg / BP	Project #:	94034-010
Sample ID:	Cell 5 @ 24"	Date Reported:	03-26-08
Laboratory Number:	44613	Date Sampled:	03-19-08
Chain of Custody No:	4057	Date Received:	03-20-08
Sample Matrix:	Soil	Date Extracted:	03-24-08
Preservative:	Cool	Date Analyzed:	03-26-08
Condition:	Cool & Intact	Analysis Requested:	8015 TPH

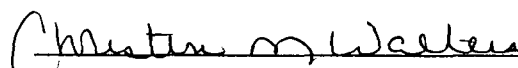
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	1.5	0.1
Total Petroleum Hydrocarbons	1.5	0.2

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: **Crouch Mesa L.F.**


Analyst


Review

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:	03-26-08 QA/QC	Date Reported:	03-26-08
Laboratory Number:	44611	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-26-08
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	Accept. Range
Gasoline Range C5 - C10	05-07-07	9.9442E+002	9.9481E+002	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	9.9240E+002	9.9280E+002	0.04%	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	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	0.7	0.7	0.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	ND	250	250	100%	75 - 125%
Diesel Range C10 - C28	0.7	250	254	101%	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 44611 - 44620.

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	Cell 1 @ 24"	Date Reported:	03-26-08
Laboratory Number:	44611	Date Sampled:	03-19-08
Chain of Custody:	4057	Date Received:	03-20-08
Sample Matrix:	Soil	Date Analyzed:	03-26-08
Preservative:	Cool	Date Extracted:	03-24-08
Condition:	Intact	Analysis Requested:	BTEX

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

ND - Parameter not detected at the stated detection limit.

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: Crouch Mesa L.F.

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	Cell 2 @ 12"	Date Reported:	03-26-08
Laboratory Number:	44612	Date Sampled:	03-19-08
Chain of Custody:	4057	Date Received:	03-20-08
Sample Matrix:	Soil	Date Analyzed:	03-26-08
Preservative:	Cool	Date Extracted:	03-24-08
Condition:	Intact	Analysis Requested:	BTEX

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

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	96.0 %
	1,4-difluorobenzene	96.0 %
	Bromochlorobenzene	96.0 %

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: Crouch Mesa L.F.

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	Cell 5 @ 24"	Date Reported:	03-26-08
Laboratory Number:	44613	Date Sampled:	03-19-08
Chain of Custody:	4057	Date Received:	03-20-08
Sample Matrix:	Soil	Date Analyzed:	03-26-08
Preservative:	Cool	Date Extracted:	03-24-08
Condition:	Intact	Analysis Requested:	BTEX

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

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: Crouch Mesa L.F.

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	03-26-BTEX QA/QC	Date Reported:	03-26-08
Laboratory Number:	44611	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-26-08
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	3.9524E+007	3.9603E+007	0.2%	ND	0.1
Toluene	3.3608E+007	3.3675E+007	0.2%	ND	0.1
Ethylbenzene	2.5196E+007	2.5246E+007	0.2%	ND	0.1
p,m-Xylene	5.2315E+007	5.2419E+007	0.2%	ND	0.1
o-Xylene	2.3585E+007	2.3633E+007	0.2%	ND	0.1

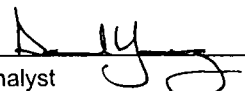
Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	ND	ND	0.0%	0 - 30%	0.9
Toluene	ND	ND	0.0%	0 - 30%	1.0
Ethylbenzene	ND	ND	0.0%	0 - 30%	1.0
p,m-Xylene	ND	ND	0.0%	0 - 30%	1.2
o-Xylene	ND	ND	0.0%	0 - 30%	0.9

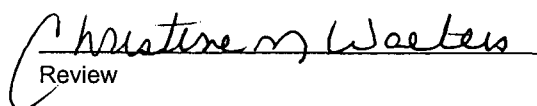
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	50.0	49.0	98.0%	39 - 150
Toluene	ND	50.0	50.0	100.0%	46 - 148
Ethylbenzene	ND	50.0	48.0	96.0%	32 - 160
p,m-Xylene	ND	100	95.0	95.0%	46 - 148
o-Xylene	ND	50.0	50.0	100.0%	46 - 148

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 44611 - 44620.

Analyst 

Review 

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Chloride

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	Cell 1 @ 24"	Date Reported:	03-25-08
Lab ID#:	44611	Date Sampled:	03-19-08
Sample Matrix:	Soil	Date Received:	03-20-08
Preservative:	Cool	Date Analyzed:	03-24-08
Condition:	Intact	Chain of Custody:	4057

Parameter

Concentration (mg/Kg)

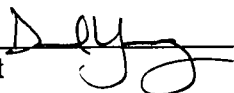
Total Chloride

13.6

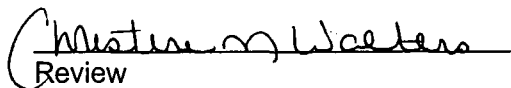
Reference: Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Crouch Mesa L.F.

Analyst



Review



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Chloride

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	Cell 2 @ 12"	Date Reported:	03-25-08
Lab ID#:	44612	Date Sampled:	03-19-08
Sample Matrix:	Soil	Date Received:	03-20-08
Preservative:	Cool	Date Analyzed:	03-24-08
Condition:	Intact	Chain of Custody:	4057

Parameter	Concentration (mg/Kg)
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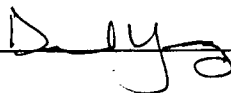
Total Chloride

5.6

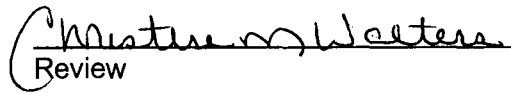
Reference: Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Crouch Mesa L.F.

Analyst



Review



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Chloride

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	Cell 5 @ 24"	Date Reported:	03-25-08
Lab ID#:	44613	Date Sampled:	03-19-08
Sample Matrix:	Soil	Date Received:	03-20-08
Preservative:	Cool	Date Analyzed:	03-24-08
Condition:	Intact	Chain of Custody:	4057

Parameter

Concentration (mg/Kg)

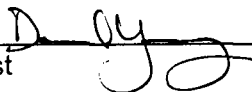
Total Chloride

3.2

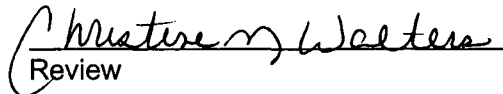
Reference: Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Crouch Mesa L.F.

Analyst



Review



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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 1 2'-3'	Date Reported:	07-01-08
Laboratory Number:	46093	Date Sampled:	06-23-08
Chain of Custody No:	4680	Date Received:	06-25-08
Sample Matrix:	Soil	Date Extracted:	06-30-08
Preservative:	Cool	Date Analyzed:	07-01-08
Condition:	Intact	Analysis Requested:	8015 TPH

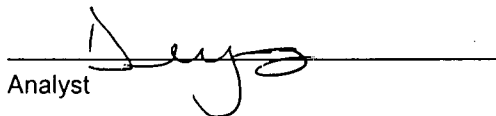
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	1.0	0.1
Total Petroleum Hydrocarbons	1.0	0.2

ND - Parameter not detected at the stated detection limit.

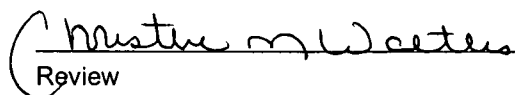
References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Crouch Mesa L.F.**

Analyst



Review



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 2 2'-3'	Date Reported:	07-01-08
Laboratory Number:	46094	Date Sampled:	06-23-08
Chain of Custody No:	4680	Date Received:	06-25-08
Sample Matrix:	Soil	Date Extracted:	06-30-08
Preservative:	Cool	Date Analyzed:	07-01-08
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)	0.6	0.1
Total Petroleum Hydrocarbons	0.6	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: **Crouch Mesa L.F.**

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 5 @ 2'	Date Reported:	07-01-08
Laboratory Number:	46095	Date Sampled:	06-23-08
Chain of Custody No:	4680	Date Received:	06-25-08
Sample Matrix:	Soil	Date Extracted:	06-30-08
Preservative:	Cool	Date Analyzed:	07-01-08
Condition:	Intact	Analysis Requested:	8015 TPH

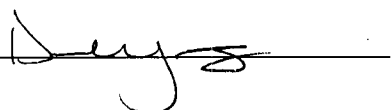
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	0.3	0.2
Diesel Range (C10 - C28)	1.0	0.1
Total Petroleum Hydrocarbons	1.3	0.2

ND - Parameter not detected at the stated detection limit.

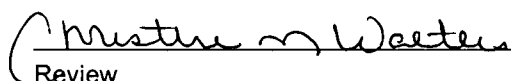
References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Crouch Mesa L.F.**

Analyst



Review



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:	07-01-08 QA/QC	Date Reported:	07-01-08
Laboratory Number:	46090	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-01-08
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	05-07-07	1.0107E+003	1.0112E+003	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	9.9989E+002	1.0003E+003	0.04%	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	34.8	34.6	0.6%	0 - 30%
Diesel Range C10 - C28	50.8	50.4	0.8%	0 - 30%

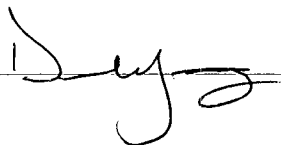
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	34.8	250	288	101%	75 - 125%
Diesel Range C10 - C28	50.8	250	292	97.0%	75 - 125%

ND - Parameter not detected at the stated detection limit.

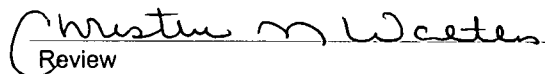
References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 46090 - 46095 and 46179 - 46182.

Analyst



Review



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg/BP	Project #:	94034-010
Sample ID:	Cell 1 2'-3'	Date Reported:	07-01-08
Laboratory Number:	46093	Date Sampled:	06-23-08
Chain of Custody:	4680	Date Received:	06-25-08
Sample Matrix:	Soil	Date Analyzed:	07-01-08
Preservative:	Cool	Date Extracted:	06-30-08
Condition:	Intact	Analysis Requested:	BTEX

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

ND - Parameter not detected at the stated detection limit.

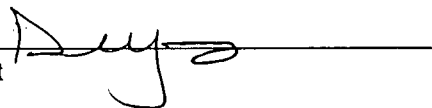
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	97.0 %
	1,4-difluorobenzene	97.0 %
	Bromochlorobenzene	97.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

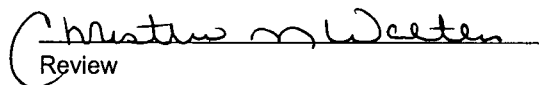
Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Crouch Mesa L.F.

Analyst



Review



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg/BP	Project #:	94034-010
Sample ID:	Cell 2 2'-3'	Date Reported:	07-01-08
Laboratory Number:	46094	Date Sampled:	06-23-08
Chain of Custody:	4680	Date Received:	06-25-08
Sample Matrix:	Soil	Date Analyzed:	07-01-08
Preservative:	Cool	Date Extracted:	06-30-08
Condition:	Intact	Analysis Requested:	BTEX

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

ND - Parameter not detected at the stated detection limit.

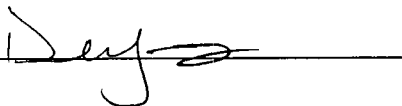
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	97.0 %
	1,4-difluorobenzene	97.0 %
	Bromochlorobenzene	97.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

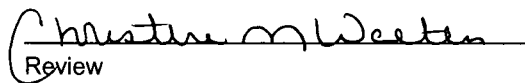
Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Crouch Mesa L.F.

Analyst



Review



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client: Blagg/BP
Sample ID: Cell 5 @ 2'
Laboratory Number: 46095
Chain of Custody: 4680
Sample Matrix: Soil
Preservative: Cool
Condition: Intact

Project #: 94034-010
Date Reported: 07-01-08
Date Sampled: 06-23-08
Date Received: 06-25-08
Date Analyzed: 07-01-08
Date Extracted: 06-30-08
Analysis Requested: BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	59.2	0.9
Toluene	80.2	1.0
Ethylbenzene	29.2	1.0
p,m-Xylene	28.3	1.2
o-Xylene	70.4	0.9
Total BTEX	267	

ND - Parameter not detected at the stated detection limit.

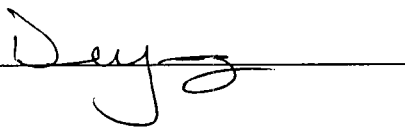
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	98.0 %
	1,4-difluorobenzene	98.0 %
	Bromochlorobenzene	98.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

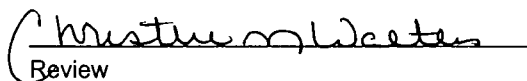
Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Crouch Mesa L.F.

Analyst



Review



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	07-01-BT QA/QC	Date Reported:	07-01-08
Laboratory Number:	46090	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-01-08
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	2.1232E+007	2.1274E+007	0.2%	ND	0.1
Toluene	1.8273E+007	1.8309E+007	0.2%	ND	0.1
Ethylbenzene	1.3128E+007	1.3155E+007	0.2%	ND	0.1
p,m-Xylene	2.9848E+007	2.9908E+007	0.2%	ND	0.1
o-Xylene	1.2483E+007	1.2509E+007	0.2%	ND	0.1

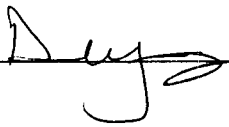
Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff	Accept Range	Detect. Limit
Benzene	0.9	0.8	11.1%	0 - 30%	0.9
Toluene	18.6	18.8	1.1%	0 - 30%	1.0
Ethylbenzene	13.5	13.6	0.7%	0 - 30%	1.0
p,m-Xylene	636	635	0.2%	0 - 30%	1.2
o-Xylene	174	177	1.7%	0 - 30%	0.9

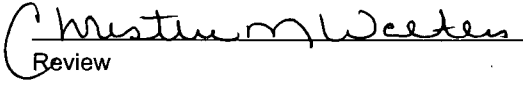
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	0.9	50.0	50.4	99.0%	39 - 150
Toluene	18.6	50.0	68.0	99.1%	46 - 148
Ethylbenzene	13.5	50.0	63.3	99.7%	32 - 160
p,m-Xylene	636	100	731	99.4%	46 - 148
o-Xylene	174	50.0	223	99.8%	46 - 148

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 46090 - 46095, and 46179 - 46182.

Analyst 

Review 

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

TRACE METAL ANALYSIS

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 1 2'-3'	Date Reported:	07-01-08
Laboratory Number:	46093	Date Sampled:	06-23-08
Chain of Custody:	4680	Date Received:	06-25-08
Sample Matrix:	Soil	Date Analyzed:	06-27-08
Preservative:	Cool	Date Digested:	06-26-08
Condition:	Intact	Analysis Needed:	Total Metals

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)	TCLP Regulatory Level (mg/Kg)
Arsenic	0.057	0.001	5.0
Barium	5.17	0.001	100
Cadmium	ND	0.001	1.0
Chromium	0.064	0.001	5.0
Lead	0.125	0.001	5.0
Mercury	ND	0.001	0.2
Selenium	0.010	0.001	1.0
Silver	ND	0.001	5.0

ND - Parameter not detected at the stated detection limit.

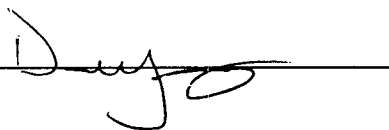
References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

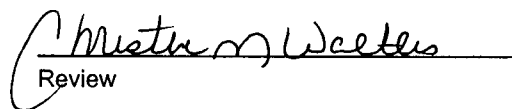
Note: Regulatory Limits based on 40 CFR part 261 subpart C
section 261.24, August 24, 1998.

Comments: **Crouch Mesa L.F.**

Analyst



Review



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

TRACE METAL ANALYSIS

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 2 2'-3'	Date Reported:	07-01-08
Laboratory Number:	46094	Date Sampled:	06-23-08
Chain of Custody:	4680	Date Received:	06-25-08
Sample Matrix:	Soil	Date Analyzed:	06-27-08
Preservative:	Cool	Date Digested:	06-26-08
Condition:	Intact	Analysis Needed:	Total Metals

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)	TCLP Regulatory Level (mg/Kg)
Arsenic	0.079	0.001	5.0
Barium	3.28	0.001	100
Cadmium	ND	0.001	1.0
Chromium	0.194	0.001	5.0
Lead	0.187	0.001	5.0
Mercury	ND	0.001	0.2
Selenium	ND	0.001	1.0
Silver	ND	0.001	5.0

ND - Parameter not detected at the stated detection limit.

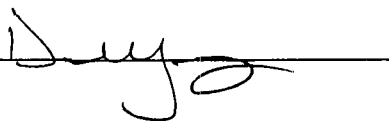
References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

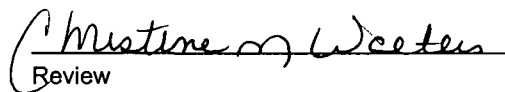
Note: Regulatory Limits based on 40 CFR part 261 subpart C
section 261.24, August 24, 1998.

Comments: **Crouch Mesa L.F.**

Analyst



Review



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

TRACE METAL ANALYSIS

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 5 @ 2'	Date Reported:	07-01-08
Laboratory Number:	46095	Date Sampled:	06-23-08
Chain of Custody:	4680	Date Received:	06-25-08
Sample Matrix:	Soil	Date Analyzed:	06-27-08
Preservative:	Cool	Date Digested:	06-26-08
Condition:	Intact	Analysis Needed:	Total Metals

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)	TCLP Regulatory Level (mg/Kg)
Arsenic	0.108	0.001	5.0
Barium	7.28	0.001	100
Cadmium	0.001	0.001	1.0
Chromium	0.438	0.001	5.0
Lead	0.323	0.001	5.0
Mercury	ND	0.001	0.2
Selenium	0.004	0.001	1.0
Silver	ND	0.001	5.0

ND - Parameter not detected at the stated detection limit.

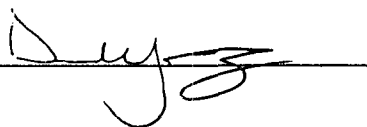
References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

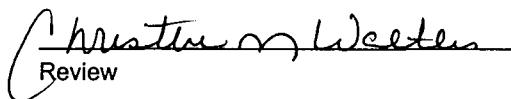
Note: Regulatory Limits based on 40 CFR part 261 subpart C
section 261.24, August 24, 1998.

Comments: **Crouch Mesa L.F.**

Analyst



Review



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

TRACE METAL ANALYSIS Quality Control / Quality Assurance Report

Client:	QA/QC	Project #:	QA/QC
Sample ID:	06-27 TM QA/AC	Date Reported:	07-01-08
Laboratory Number:	46066	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Analysis Requested:	Total RCRA Metals	Date Analyzed:	06-27-08
Condition:	N/A	Date Digested:	06-25-08

Blank & Duplicate Conc. (mg/Kg)	Instrument Blank (mg/Kg)	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.001	0.172	0.177	2.9%	0% - 30%
Barium	ND	ND	0.001	9.63	9.78	1.5%	0% - 30%
Cadmium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Chromium	ND	ND	0.001	0.238	0.252	5.9%	0% - 30%
Lead	ND	ND	0.001	0.828	0.852	2.9%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.001	0.022	0.023	3.1%	0% - 30%
Silver	ND	ND	0.001	0.006	0.007	13.6%	0% - 30%

Spike Conc. (mg/Kg)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.250	0.172	0.420	99.5%	80% - 120%
Barium	0.500	9.63	10.1	99.9%	80% - 120%
Cadmium	0.250	ND	0.243	97.2%	80% - 120%
Chromium	0.500	0.238	0.723	98.0%	80% - 120%
Lead	0.500	0.828	1.200	90.3%	80% - 120%
Mercury	0.100	ND	0.090	90.0%	80% - 120%
Selenium	0.100	0.022	0.111	90.8%	80% - 120%
Silver	0.100	0.006	0.104	98.2%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission
Spectroscopy, SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 46066, 46067, 46075, 46091 - 46093 and 46104 - 46105.

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

TRACE METAL ANALYSIS Quality Control / Quality Assurance Report

Client:	QA/QC	Project #:	QA/QC
Sample ID:	06-27 TM QA/AC	Date Reported:	07-01-08
Laboratory Number:	46094	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Analysis Requested:	Total RCRA Metals	Date Analyzed:	06-27-08
Condition:	N/A	Date Digested:	06-25-08

Blank & Duplicate Conc. (mg/Kg)	Instrument Blank (mg/Kg)	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.001	0.079	0.086	8.9%	0% - 30%
Barium	ND	ND	0.001	3.28	3.38	3.2%	0% - 30%
Cadmium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Chromium	ND	ND	0.001	0.194	0.198	2.1%	0% - 30%
Lead	ND	ND	0.001	0.187	0.189	0.8%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Silver	ND	ND	0.001	ND	ND	0.0%	0% - 30%

Spike Conc. (mg/Kg)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.250	0.079	0.286	86.9%	80% - 120%
Barium	0.500	3.28	4.01	106%	80% - 120%
Cadmium	0.250	ND	0.269	108%	80% - 120%
Chromium	0.500	0.194	0.631	91.0%	80% - 120%
Lead	0.500	0.187	0.625	90.9%	80% - 120%
Mercury	0.100	ND	0.093	93.0%	80% - 120%
Selenium	0.100	ND	0.100	99.8%	80% - 120%
Silver	0.100	ND	0.084	84.2%	80% - 120%

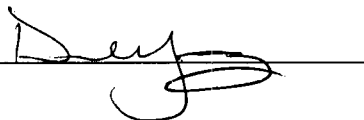
ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.
SW-846, USEPA, December 1996.

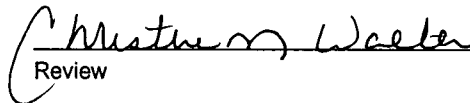
Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission
Spectroscopy, SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 46094 - 46095, 46107 and 46146.

Analyst



Review



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Chloride

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 1 2'-3'	Date Reported:	07-02-08
Lab ID#:	46093	Date Sampled:	06-23-08
Sample Matrix:	Soil	Date Received:	06-25-08
Preservative:	Cool	Date Analyzed:	07-01-08
Condition:	Intact	Chain of Custody:	4680

Parameter

Concentration (mg/Kg)

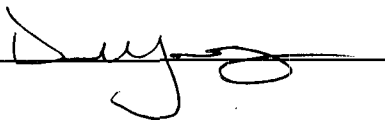
Total Chloride

54.0

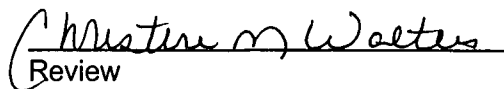
Reference: Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Crouch Mesa L.F.

Analyst



Review



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Chloride

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 2 2'-3'	Date Reported:	07-02-08
Lab ID#:	46094	Date Sampled:	06-23-08
Sample Matrix:	Soil	Date Received:	06-25-08
Preservative:	Cool	Date Analyzed:	07-01-08
Condition:	Intact	Chain of Custody:	4680

Parameter

Concentration (mg/Kg)

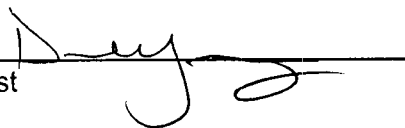
Total Chloride

71.0

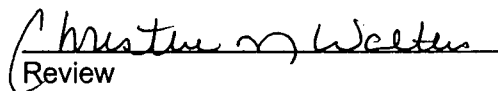
Reference: Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Crouch Mesa L.F.

Analyst



Review



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Chloride

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 5 @ 2'	Date Reported:	07-02-08
Lab ID#:	46095	Date Sampled:	06-23-08
Sample Matrix:	Soil	Date Received:	06-25-08
Preservative:	Cool	Date Analyzed:	07-01-08
Condition:	Intact	Chain of Custody:	4680

Parameter	Concentration (mg/Kg)
Total Chloride	32.0

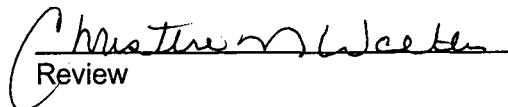
Reference: Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Crouch Mesa L.F.

Analyst



Review



5465

[illegible]

ENVIROTECH INC.

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 2 @ 2.5'	Date Reported:	10-09-08
Laboratory Number:	47579	Date Sampled:	09-29-08
Chain of Custody No:	5465	Date Received:	10-02-08
Sample Matrix:	Soil	Date Extracted:	10-07-08
Preservative:	Cool	Date Analyzed:	10-08-08
Condition:	Intact	Analysis Requested:	8015 TPH

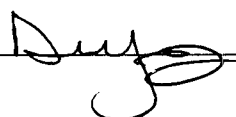
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

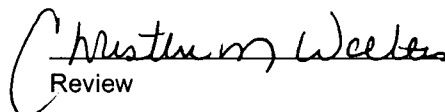
References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **CMLF**

Analyst



Review



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 1 @ 2'	Date Reported:	10-09-08
Laboratory Number:	47580	Date Sampled:	09-29-08
Chain of Custody No:	5465	Date Received:	10-02-08
Sample Matrix:	Soil	Date Extracted:	10-07-08
Preservative:	Cool	Date Analyzed:	10-08-08
Condition:	Intact	Analysis Requested:	8015 TPH

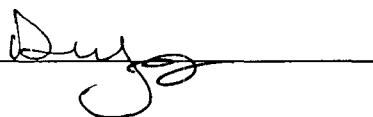
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	1.5	0.1
Total Petroleum Hydrocarbons	1.5	0.2

ND - Parameter not detected at the stated detection limit.

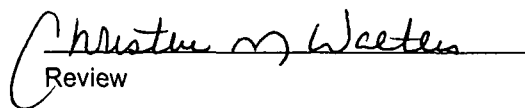
References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **CMLF**

Analyst



Review



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 5 @ 2.5'	Date Reported:	10-09-08
Laboratory Number:	47581	Date Sampled:	09-29-08
Chain of Custody No:	5465	Date Received:	10-02-08
Sample Matrix:	Soil	Date Extracted:	10-07-08
Preservative:	Cool	Date Analyzed:	10-08-08
Condition:	Intact	Analysis Requested:	8015 TPH

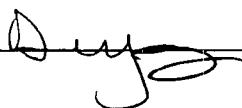
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

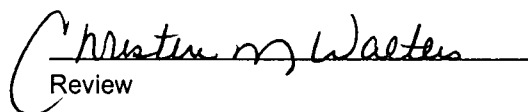
References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **CMLF**

Analyst



Review



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:	10-08-08 QA/QC	Date Reported:	10-09-08
Laboratory Number:	47571	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-08-08
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	05-07-07	1.0031E+003	1.0035E+003	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	1.0008E+003	1.0012E+003	0.04%	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	2.0	2.0	0.0%	0 - 30%
Diesel Range C10 - C28	1.0	1.0	0.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	2.0	250	249	98.8%	75 - 125%
Diesel Range C10 - C28	1.0	250	241	96.0%	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 47571, 47579 - 47581, 47587, 47588, 47611 - 47613, and 47617.

Analyst



Review



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 2 @ 2.5'	Date Reported:	10-09-08
Laboratory Number:	47579	Date Sampled:	09-29-08
Chain of Custody:	5465	Date Received:	10-02-08
Sample Matrix:	Soil	Date Analyzed:	10-08-08
Preservative:	Cool	Date Extracted:	10-07-08
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	2.6	0.9
Toluene	7.4	1.0
Ethylbenzene	1.3	1.0
p,m-Xylene	4.6	1.2
o-Xylene	2.4	0.9
Total BTEX	18.3	

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: CMLF.

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 1 @ 2'	Date Reported:	10-09-08
Laboratory Number:	47580	Date Sampled:	09-29-08
Chain of Custody:	5465	Date Received:	10-02-08
Sample Matrix:	Soil	Date Analyzed:	10-08-08
Preservative:	Cool	Date Extracted:	10-07-08
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	3.3	0.9
Toluene	8.7	1.0
Ethylbenzene	1.2	1.0
p,m-Xylene	4.4	1.2
o-Xylene	2.1	0.9
Total BTEX	19.7	

ND - Parameter not detected at the stated detection limit.

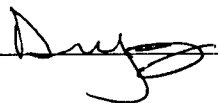
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99.0 %
	1,4-difluorobenzene	99.0 %
	Bromochlorobenzene	99.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

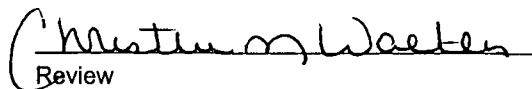
Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: CMLF.

Analyst



Review



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 5 @ 2.5'	Date Reported:	10-09-08
Laboratory Number:	47581	Date Sampled:	09-29-08
Chain of Custody:	5465	Date Received:	10-02-08
Sample Matrix:	Soil	Date Analyzed:	10-08-08
Preservative:	Cool	Date Extracted:	10-07-08
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	0.9
Toluene	4.7	1.0
Ethylbenzene	1.3	1.0
p,m-Xylene	2.1	1.2
o-Xylene	1.5	0.9
Total BTEX	9.6	

ND - Parameter not detected at the stated detection limit.

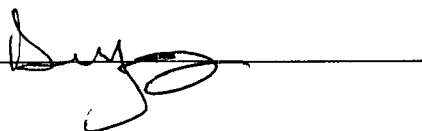
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	96.0 %
	1,4-difluorobenzene	96.0 %
	Bromochlorobenzene	96.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

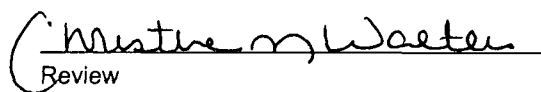
Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: CMLF.

Analyst



Review



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	10-08-BT QA/QC	Date Reported:	10-09-08
Laboratory Number:	47571	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-08-08
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	5.1241E+007	5.1343E+007	0.2%	ND	0.1
Toluene	4.2538E+007	4.2623E+007	0.2%	ND	0.1
Ethylbenzene	3.4609E+007	3.4679E+007	0.2%	ND	0.1
p,m-Xylene	7.4078E+007	7.4227E+007	0.2%	ND	0.1
o-Xylene	3.4798E+007	3.4868E+007	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	1.7	1.6	5.9%	0 - 30%	0.9
Toluene	15.0	15.4	2.7%	0 - 30%	1.0
Ethylbenzene	5.2	5.0	3.8%	0 - 30%	1.0
p,m-Xylene	83.9	81.7	2.6%	0 - 30%	1.2
o-Xylene	70.2	66.1	5.8%	0 - 30%	0.9

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	1.7	50.0	51.2	99.0%	39 - 150
Toluene	15.0	50.0	63.9	98.3%	46 - 148
Ethylbenzene	5.2	50.0	56.2	102%	32 - 160
p,m-Xylene	83.9	100	182	98.8%	46 - 148
o-Xylene	70.2	50.0	118	98.3%	46 - 148

ND - Parameter not detected at the stated detection limit.

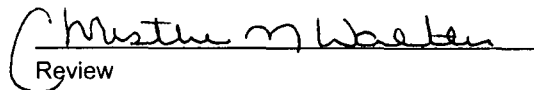
References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for Samples 47571, 47578 - 47581, 47587 - 47588, 47612, 47614, and 47617.

Analyst



Review



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client: Blagg/BP
Sample ID: Cell 2 @ 2.5'
Laboratory Number: 47579
Chain of Custody: 5465
Sample Matrix: Soil Extract
Preservative: Cool
Condition: Intact

Project #: 94034-0010
Date Reported: 10-10-08
Date Sampled: 09-29-08
Date Received: 10-02-08
Date Extracted: 10-06-08
Date Analyzed: 10-07-08

Parameter	Analytical Result	Units		
pH	8.35	s.u.		
Conductivity @ 25° C	70.8	umhos/cm		
Total Dissolved Solids @ 180C	42.0	mg/L		
Total Dissolved Solids (Calc)	37.1	mg/L		
SAR	0.7	ratio		
Total Alkalinity as CaCO3	30.0	mg/L		
Total Hardness as CaCO3	18.0	mg/L		
Bicarbonate as HCO3	30.0	mg/L	0.49	meq/L
Carbonate as CO3	<0.1	mg/L	0.00	meq/L
Hydroxide as OH	<0.1	mg/L	0.00	meq/L
Nitrate Nitrogen	0.647	mg/L	0.01	meq/L
Nitrite Nitrogen	0.154	mg/L	0.00	meq/L
Chloride	0.848	mg/L	0.02	meq/L
Fluoride	1.64	mg/L	0.09	meq/L
Phosphate	0.441	mg/L	0.01	meq/L
Sulfate	1.32	mg/L	0.03	meq/L
Iron	0.267	mg/L	0.01	meq/L
Calcium	7.2	mg/L	0.36	meq/L
Magnesium	<0.1	mg/L	0.00	meq/L
Potassium	0.258	mg/L	0.01	meq/L
Sodium	6.39	mg/L	0.28	meq/L
Cations			0.65	meq/L
Anions			0.66	meq/L
Cation/Anion Difference			0.53%	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: CMLF.

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client: Blagg/BP
Sample ID: Cell 1 @ 2'
Laboratory Number: 47580
Chain of Custody: 5465
Sample Matrix: Soil Extract
Preservative: Cool
Condition: Intact

Project #: 94034-0010
Date Reported: 10-10-08
Date Sampled: 09-29-08
Date Received: 10-02-08
Date Extracted: 10-06-08
Date Analyzed: 10-07-08

Parameter	Analytical Result	Units		
pH	7.95	s.u.		
Conductivity @ 25° C	80.5	umhos/cm		
Total Dissolved Solids @ 180C	48.0	mg/L		
Total Dissolved Solids (Calc)	50.3	mg/L		
SAR	0.4	ratio		
Total Alkalinity as CaCO3	39.0	mg/L		
Total Hardness as CaCO3	31.0	mg/L		
Bicarbonate as HCO3	39.0	mg/L	0.64	meq/L
Carbonate as CO3	<0.1	mg/L	0.00	meq/L
Hydroxide as OH	<0.1	mg/L	0.00	meq/L
Nitrate Nitrogen	1.373	mg/L	0.02	meq/L
Nitrite Nitrogen	0.795	mg/L	0.02	meq/L
Chloride	1.572	mg/L	0.04	meq/L
Fluoride	1.69	mg/L	0.09	meq/L
Phosphate	<0.01	mg/L	0.00	meq/L
Sulfate	2.26	mg/L	0.05	meq/L
Iron	0.245	mg/L	0.01	meq/L
Calcium	12.4	mg/L	0.62	meq/L
Magnesium	<0.1	mg/L	0.00	meq/L
Potassium	1.176	mg/L	0.03	meq/L
Sodium	5.36	mg/L	0.23	meq/L
Cations			0.89	meq/L
Anions			0.86	meq/L
Cation/Anion Difference			3.69%	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **CMLF.**

Analyst

Review

5759

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

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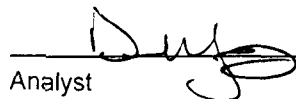
Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 1	Date Reported:	11-19-08
Laboratory Number:	48155	Date Sampled:	11-13-08
Chain of Custody No:	5759	Date Received:	11-14-08
Sample Matrix:	Soil	Date Extracted:	11-17-08
Preservative:	Cool	Date Analyzed:	11-18-08
Condition:	Intact	Analysis Requested:	8015 TPH

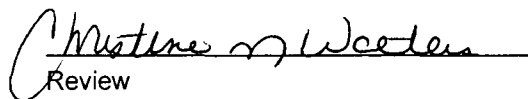
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

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: **Crouch Mesa L.F.**


Analyst


Review

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 2	Date Reported:	11-19-08
Laboratory Number:	48156	Date Sampled:	11-13-08
Chain of Custody No:	5759	Date Received:	11-14-08
Sample Matrix:	Soil	Date Extracted:	11-17-08
Preservative:	Cool	Date Analyzed:	11-18-08
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: **Crouch Mesa L.F.**

Analyst

Review

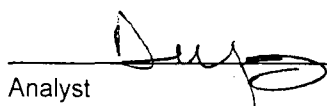
Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 5	Date Reported:	11-19-08
Laboratory Number:	48157	Date Sampled:	11-13-08
Chain of Custody No:	5759	Date Received:	11-14-08
Sample Matrix:	Soil	Date Extracted:	11-17-08
Preservative:	Cool	Date Analyzed:	11-18-08
Condition:	Intact	Analysis Requested:	8015 TPH

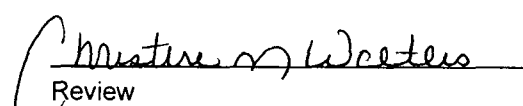
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

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: **Crouch Mesa L.F.**


Analyst


Review

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	11-18-08 QA/QC	Date Reported:	11-19-08
Laboratory Number:	48152	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-18-08
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	Accept Range
Gasoline Range C5 - C10	05-07-07	1.0038E+003	1.0042E+003	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	1.0137E+003	1.0141E+003	0.04%	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	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

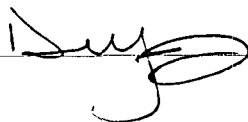
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	ND	250	252	101%	75 - 125%
Diesel Range C10 - C28	ND	250	248	99.2%	75 - 125%

ND - Parameter not detected at the stated detection limit.

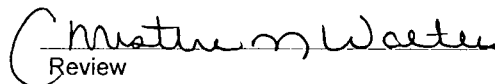
References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 48152, 48154 - 48159, 48161, 48169, and 48170.

Analyst



Review



Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 1	Date Reported:	11-19-08
Laboratory Number:	48155	Date Sampled:	11-13-08
Chain of Custody:	5759	Date Received:	11-14-08
Sample Matrix:	Soil	Date Analyzed:	11-18-08
Preservative:	Cool	Date Extracted:	11-17-08
Condition:	Intact	Analysis Requested:	BTEX

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

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	96.0 %
	1,4-difluorobenzene	96.0 %
	Bromochlorobenzene	96.0 %

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: Crouch Mesa L.F.

Analyst

Review

Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 2	Date Reported:	11-19-08
Laboratory Number:	48156	Date Sampled:	11-13-08
Chain of Custody:	5759	Date Received:	11-14-08
Sample Matrix:	Soil	Date Analyzed:	11-18-08
Preservative:	Cool	Date Extracted:	11-17-08
Condition:	Intact	Analysis Requested:	BTEX

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

ND - Parameter not detected at the stated detection limit.

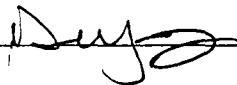
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	97.0 %
	1,4-difluorobenzene	97.0 %
	Bromochlorobenzene	97.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

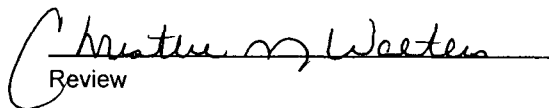
Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Crouch Mesa L.F.

Analyst



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Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 5	Date Reported:	11-19-08
Laboratory Number:	48157	Date Sampled:	11-13-08
Chain of Custody:	5759	Date Received:	11-14-08
Sample Matrix:	Soil	Date Analyzed:	11-18-08
Preservative:	Cool	Date Extracted:	11-17-08
Condition:	Intact	Analysis Requested:	BTEX

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

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	96.0 %
	1,4-difluorobenzene	96.0 %
	Bromochlorobenzene	96.0 %

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: Crouch Mesa L.F.

Analyst

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	11-18-BT QA/QC	Date Reported:	11-19-08
Laboratory Number:	48152	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-18-08
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	3.9668E+007	3.9747E+007	0.2%	ND	0.1
Toluene	3.0837E+007	3.0899E+007	0.2%	ND	0.1
Ethylbenzene	2.3108E+007	2.3154E+007	0.2%	ND	0.1
p,m-Xylene	2.3108E+007	2.3154E+007	0.2%	ND	0.1
o-Xylene	2.2454E+007	2.2499E+007	0.2%	ND	0.1

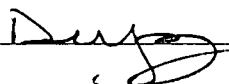
Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff	Accept Range	Detect Limit
Benzene	1.6	1.7	6.3%	0 - 30%	0.9
Toluene	8.5	8.6	1.2%	0 - 30%	1.0
Ethylbenzene	2.0	1.9	5.0%	0 - 30%	1.0
p,m-Xylene	8.6	8.3	3.5%	0 - 30%	1.2
o-Xylene	3.3	3.5	6.1%	0 - 30%	0.9

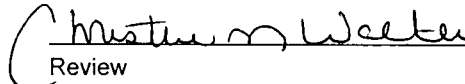
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	1.6	50.0	50.6	98.1%	39 - 150
Toluene	8.5	50.0	56.2	96.1%	46 - 148
Ethylbenzene	2.0	50.0	50.0	96.2%	32 - 160
p,m-Xylene	8.6	100	106	97.1%	46 - 148
o-Xylene	3.3	50.0	50.3	94.4%	46 - 148

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 48152, 48154 - 48159, 48161, 48169, and 48170.


Analyst

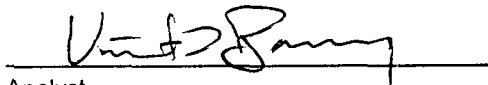

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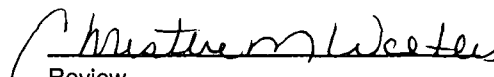
Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 1	Date Reported:	11-19-08
Laboratory Number:	48155	Date Sampled:	11-13-08
Chain of Custody:	5759	Date Received:	11-14-08
Sample Matrix:	Soil Extract	Date Extracted:	11-17-08
Preservative:	Cool	Date Analyzed:	11-18-08
Condition:	Intact		

Parameter	Analytical Result	Units		
pH	8.12	s.u.		
Conductivity @ 25° C	207	umhos/cm		
Total Dissolved Solids @ 180C	108	mg/L		
Total Dissolved Solids (Calc)	118	mg/L		
SAR	0.1	ratio		
Total Alkalinity as CaCO3	34.0	mg/L		
Total Hardness as CaCO3	90.4	mg/L		
Bicarbonate as HCO3	34.0	mg/L	0.56	meq/L
Carbonate as CO3	<0.1	mg/L	0.00	meq/L
Hydroxide as OH	<0.1	mg/L	0.00	meq/L
Nitrate Nitrogen	3.22	mg/L	0.05	meq/L
Nitrite Nitrogen	0.057	mg/L	0.00	meq/L
Chloride	32.0	mg/L	0.90	meq/L
Fluoride	0.188	mg/L	0.01	meq/L
Phosphate	1.17	mg/L	0.04	meq/L
Sulfate	21.0	mg/L	0.44	meq/L
Iron	0.230	mg/L	0.01	meq/L
Calcium	33.8	mg/L	1.69	meq/L
Magnesium	1.43	mg/L	0.12	meq/L
Potassium	1.40	mg/L	0.04	meq/L
Sodium	2.7	mg/L	0.12	meq/L
Cations			1.97	meq/L
Anions			2.00	meq/L
Cation/Anion Difference			1.58%	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Crouch Mesa L.F.**


Analyst

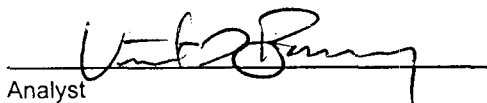

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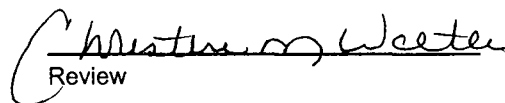
Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 2	Date Reported:	11-19-08
Laboratory Number:	48156	Date Sampled:	11-13-08
Chain of Custody:	5759	Date Received:	11-14-08
Sample Matrix:	Soil Extract	Date Extracted:	11-17-08
Preservative:	Cool	Date Analyzed:	11-18-08
Condition:	Intact		

Parameter	Analytical Result	Units		
pH	7.37	s.u.		
Conductivity @ 25° C	1,760	umhos/cm		
Total Dissolved Solids @ 180C	1,000	mg/L		
Total Dissolved Solids (Calc)	948	mg/L		
SAR	1.9	ratio		
Total Alkalinity as CaCO3	25.0	mg/L		
Total Hardness as CaCO3	489	mg/L		
Bicarbonate as HCO3	25.0	mg/L	0.41	meq/L
Carbonate as CO3	<0.1	mg/L	0.00	meq/L
Hydroxide as OH	<0.1	mg/L	0.00	meq/L
Nitrate Nitrogen	1.79	mg/L	0.03	meq/L
Nitrite Nitrogen	0.010	mg/L	0.00	meq/L
Chloride	2.19	mg/L	0.06	meq/L
Fluoride	0.134	mg/L	0.01	meq/L
Phosphate	0.309	mg/L	0.01	meq/L
Sulfate	650	mg/L	13.53	meq/L
Iron	0.029	mg/L	0.00	meq/L
Calcium	155	mg/L	7.73	meq/L
Magnesium	24.8	mg/L	2.04	meq/L
Potassium	2.19	mg/L	0.06	meq/L
Sodium	96.0	mg/L	4.18	meq/L
Cations			14.01	meq/L
Anions			14.05	meq/L
Cation/Anion Difference			0.30%	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Crouch Mesa L.F.**


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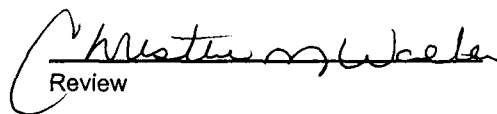
Client:	Blagg/BP	Project #:	94034-0010
Sample ID:	Cell 5	Date Reported:	11-19-08
Laboratory Number:	48157	Date Sampled:	11-13-08
Chain of Custody:	5759	Date Received:	11-14-08
Sample Matrix:	Soil Extract	Date Extracted:	11-17-08
Preservative:	Cool	Date Analyzed:	11-18-08
Condition:	Intact		

Parameter	Analytical Result	Units		
pH	7.25	s.u.		
Conductivity @ 25° C	1,850	umhos/cm		
Total Dissolved Solids @ 180C	1,060	mg/L		
Total Dissolved Solids (Calc)	1,002	mg/L		
SAR	0.5	ratio		
Total Alkalinity as CaCO3	25.0	mg/L		
Total Hardness as CaCO3	688	mg/L		
Bicarbonate as HCO3	25.0	mg/L	0.41	meq/L
Carbonate as CO3	<0.1	mg/L	0.00	meq/L
Hydroxide as OH	<0.1	mg/L	0.00	meq/L
Nitrate Nitrogen	1.20	mg/L	0.02	meq/L
Nitrite Nitrogen	0.010	mg/L	0.00	meq/L
Chloride	2.23	mg/L	0.06	meq/L
Fluoride	0.162	mg/L	0.01	meq/L
Phosphate	0.113	mg/L	0.00	meq/L
Sulfate	698	mg/L	14.53	meq/L
Iron	0.083	mg/L	0.00	meq/L
Calcium	215	mg/L	10.73	meq/L
Magnesium	36.8	mg/L	3.03	meq/L
Potassium	1.99	mg/L	0.05	meq/L
Sodium	31.0	mg/L	1.35	meq/L
Cations			15.16	meq/L
Anions			15.04	meq/L
Cation/Anion Difference			0.81%	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Crouch Mesa L.F.**


Analyst


Review