

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

OIL CONS. DIV DIST. 3

MAY 26 2015

Form C-141
Revised August 8, 2011

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

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company: BP	Contact: Jeff Peace
Address: 200 Energy Court, Farmington, NM 87401	Telephone No.: 505-326-9479
Facility Name: Gutierrez Gas Com B 1E	Facility Type: Natural gas well
Surface Owner: Private	Mineral Owner: Private
API No. 3004523752	

LOCATION OF RELEASE

Unit Letter I	Section 4	Township 29N	Range 9W	Feet from the 1,670	North/South Line South	Feet from the 790	East/West Line East	County: San Juan
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Latitude 36.75125 Longitude 107.77793

NATURE OF RELEASE

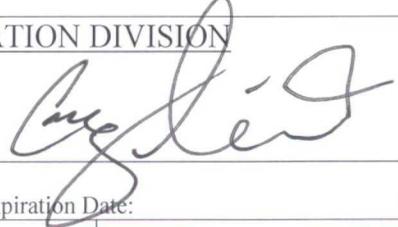
Type of Release: condensate/oil	Volume of Release: unknown	Volume Recovered: none
Source of Release: unknown	Date and Hour of Occurrence: unknown	Date and Hour of Discovery: February 19, 2013; 11:25 AM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		

Describe Cause of Problem and Remedial Action Taken.* **SUPPLEMENTAL INFORMATION**

During operations to remove below grade tank contaminated soil was discovered while removing underground piping. Initial investigation with bore holes defined the impacted area and found groundwater at twelve feet deep. Impacted soil was excavated and removed and groundwater investigation wells were drilled and installed. Groundwater was sampled and the analyses showed the samples were below standards for BTEX but results were high for sulfate and TDS. Sampling of produced water at the well was done to determine sulfate and TDS values and to verify if those high values in the investigation wells are due to produced water.

Describe Area Affected and Cleanup Action Taken.* Groundwater investigation wells installed in the area with impacted soil that was excavated showed acceptable levels of BTEX but sulfate was 4,000 ppm and 4,400 ppm and TDS was 6,980 ppm and 6,210 ppm. A sample of the produced water from the well was taken and analyzed for sulfate and TDS to determine if produced water had impacted the groundwater. The analysis of the produced water resulted in sulfate of 10 ppm and TDS of 4,590 ppm. These values are well below the values seen in the investigation wells, indicating produced water had no impact on the groundwater.

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: 	OIL CONSERVATION DIVISION	
Printed Name: Jeff Peace	Approved by Environmental Specialist: 	
Title: Field Environmental Coordinator	Approval Date: <u>6/30/15</u>	Expiration Date:
E-mail Address: peace.jeffrey@bp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: May 21, 2015	Phone: 505-326-9479	

* Attach Additional Sheets If Necessary

#Wcs 1518152354

84

BP AMERICA PRODUCTION COMPANY
Gutierrez GC B # 1E - (Release of Unidentified Source[s])

Unit Letter I, Section 4, T29N, R09W - API Number: 30-045-23752

Field & Laboratory Data from Groundwater Monitor Wells

FIELD PARAMETERS								
SAMPLE ID	SAMPLE DATE	SAMPLE TIME	DEPTH TO WATER (feet)	TOTAL MW LENGTH (feet)	pH	Conductivity (µmhos/cm)	Temperature (°Celcius)	Volume Purged (gallons)
MW # 1 (source area)	04/24/14	1105	13.17	20.00	6.60	1,900	12.7	3.50
MW # 2 (source area)	04/24/14	1200	13.47	20.35	6.57	1,900	13.0	3.50
LP AGT PRODUCED WATER	02/07/15	1100	NA	NA	NA	NA	NA	NA

NMWQCC STANDARDS -

LABORATORY PARAMETERS										
SAMPLE ID	Fluoride (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate-Nitrite as N (mg/L)	Iron (mg/L)	TDS (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)
MW # 1 (source area)	0.70	75	4,400	ND	3.3	6,980	ND	ND	ND	ND
MW # 2 (source area)	0.62	61	4,000	ND	2.3	6,210	ND	ND	4.1	23
LP AGT PRODUCED WATER	NA	NA	10	NA	NA	4,590	NA	BA	NA	NA

NMWQCC STANDARDS -

Notes:

Depth to water measured from casing top of monitor well.

Groundwater standards are applied to values assigned in blue highlighted boxes or confirmed background levels, which ever is higher.

MW - Monitor well

µmhos/cm - Micromhos per centimeter

TDS - Total dissolved solids

mg/L - Milligram per Liter

µg/L - Microgram per liter

ND - Not detected at Reporting Limit

NMWQCC - New Mexico Water Quality Control Commission

Analytical Report

Lab Order 1502316

Date Reported: 2/16/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: LP AGT PRODUCED WATER

Project: GUTIERREZ GC B #1E

Collection Date: 2/4/2015 2:45:00 PM

Lab ID: 1502316-001

Matrix: AQUEOUS

Received Date: 2/7/2015 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Sulfate	10	5.0		mg/L	10	2/12/2015 10:18:18 PM	R24289
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	4590	200	*	mg/L	1	2/11/2015 1:51:00 PM	17657

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 1 of 3
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1502316

16-Feb-15

Client: Blagg Engineering
Project: GUTIERREZ GC B #1E

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R24289	RunNo:	24289					
Prep Date:		Analysis Date:	2/12/2015	SeqNo:	715797	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R24289	RunNo:	24289					
Prep Date:		Analysis Date:	2/12/2015	SeqNo:	715798	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	10	0.50	10.00	0	100	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1502316

16-Feb-15

Client: Blagg Engineering
Project: GUTIERREZ GC B #1E

Sample ID MB-17657	SampType: MBLK	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: PBW	Batch ID: 17657	RunNo: 24242								
Prep Date: 2/10/2015	Analysis Date: 2/11/2015	SeqNo: 714561	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID LCS-17657	SampType: LCS	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: LCSW	Batch ID: 17657	RunNo: 24242								
Prep Date: 2/10/2015	Analysis Date: 2/11/2015	SeqNo: 714562	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1020	20.0	1000	0	102	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit



Hall Environmental Analysis Laboratory
 4901 Hawkins NE
 Albuquerque, NM 87109
 TEL: 505-345-3975 FAX: 505-345-4107
 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1502316**

RcptNo: **1**

Received by/date: AT 02/07/15

Logged By: **Anne Thorne** 2/7/2015 11:00:00 AM *Anne Thorne*

Completed By: **Anne Thorne** 2/9/2015 *Anne Thorne*

Reviewed By: JO 02/09/15

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? Courier

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes No
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met? (If no, notify customer for authorization.) Yes No

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: _____

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No.	Temp °C	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	1.6	Good	Yes			

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

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

RECEIVED

JAN 16 2015

NMOCD

DISTRICT III

Form C-141
Revised August 8, 2011

Submit Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company: BP	Contact: Jeff Peace
Address: 200 Energy Court, Farmington, NM 87401	Telephone No.: 505-326-9479
Facility Name: Gutierrez Gas Com B 1E	Facility Type: Natural gas well

Surface Owner: Private	Mineral Owner: Private	API No. 3004523752
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LOCATION OF RELEASE

Unit Letter I	Section 4	Township 29N	Range 9W	Feet from the 1,670	North/South Line South	Feet from the 790	East/West Line East	County: San Juan
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Latitude 36.75125 Longitude 107.77793

NATURE OF RELEASE

Type of Release: condensate/oil	Volume of Release: unknown	Volume Recovered: none
Source of Release: unknown	Date and Hour of Occurrence: unknown	Date and Hour of Discovery: February 19, 2013; 11:25 AM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* During operations to remove below grade tank contaminated soil was discovered while removing underground piping. Initial investigation with bore holes indicated defined the impacted area and found groundwater at twelve feet deep. Impacted soil was excavated and removed and groundwater investigation wells were drilled and installed.

Describe Area Affected and Cleanup Action Taken.* Borehole drilling was done to collect soil samples and determine vertical and lateral extent of the contamination. Groundwater was found twelve feet below the surface. Excavation was done to remove impacted soil. Approximately 2,312 cubic yards of impacted soil was taken to the IEI landfarm for treatment. Excavation continued until remaining soil samples resulted in less than 100 ppm TPH. The excavated area was backfilled with clean soil and compacted. Monitor wells were installed within the excavated area and downgradient of the excavation. Monitor wells within the impacted were sampled and were below standards for BTEX. Results were high for sulfate and TDS, which is typical for this area. Attached are lab analysis data for soil and water samples, site maps and diagrams, and bore hole logs.

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 Environmental Specialist: _____	
Title: Field Environmental Coordinator	Approval Date:	Expiration Date:
E-mail Address: peace.jeffrey@bp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: January 16, 2015	Phone: 505-326-9479	

*Investigation Incomplete
Additional Gw info Requested.*

* Attach Additional Sheets If Necessary

BP America Production Company

Gutierrez Gas Com B 001E
(I) Sec 4 – T29N – R9W
API: 30-045-23752
San Juan County, New Mexico

Summary Record of Impacted Soil Remediation & Groundwater

- February 19, 2013 Initial visit by Blagg Engineering, Inc. (BEI). Construction crew encountered impacted soil during flow line position identification via hydro-vacing (see **Figure 1**).
- February 21, 2013 Preliminary investigation commenced with boring advancement via geoprobe (**BH1 through BH4**).
- February 22, 2013 Preliminary investigation commenced with boring advancement via geoprobe (**BH1 through BH4**).
- February 26, 2013 Investigation finalized (**BH12 through BH16 – see Figure 2**). Due to known dramatic groundwater fluctuation from other work conducted in relatively close proximity to the site, BEI recommended to approach remedial action via excavation during the irrigation off-season.
- December 2013 Commenced remediation effort via excavation.
- January 2014 Completed excavation of impacted soils (see **Figure 3**). 2,312 cubic yards were removed and transported to BP's Crouch Mesa Facility.
- April 17 & 18, 2014 Three (3) groundwater monitor/test wells installed using conventional drill rig (CME-95). MW #1 & MW #2 placed within known elevated hydrocarbon soil samples (hot spots) collected during investigation phase. MW #3 placed in suspected down gradient direction for any possible future gradient determination (see **Figure 4**).
- April 23, 2014 MW #1 & MW #2 developed to remove sediment accumulated during well installation and to observe groundwater draw down and/or recovery.
- April 24, 2014 MW #1 & MW #2 sampled for benzene, toluene, ethylbenzene, total xylenes (**BTEX**) and regulated general chemistry parameters.

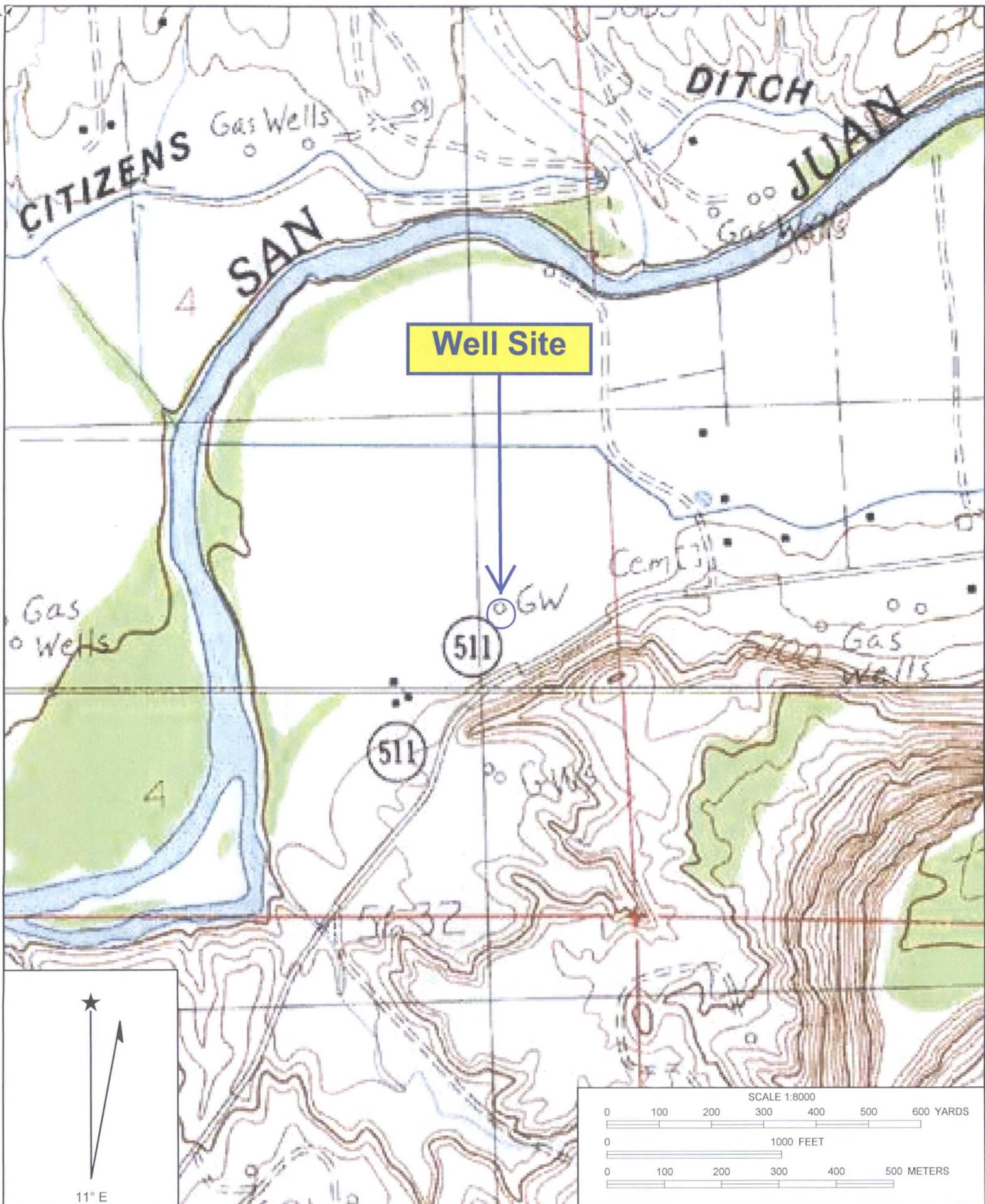
BP - Gutierrez GC B #1E

Unit Ltr. I, Section 4, T29N, R9W, NMPM
API #: 3004523752

Imagery Date: 06/10/2011.

Well Head

Pothole with soil impacts ~ 2' b.g.



Gutierrez Gas Com B 001E
 NE/4 SE/4, Section 4, T29N, R09W, NMPM
 API #: 3004523752

36.751226°N, -107.778379°W
 Google Earth Imagery Date: 06/10/2011.

FIGURE 1



TO
SAN JUAN
RIVER
(> 2,000 ft. from edge of well pad)

OPEN FIELD
(agricul. use?)

WELL HEAD
⊕

EDGE OF WELL PAD

FORMER
CONTAINMENT RING
POSITION

FORMER
PROD. TANK
POSITION

FORMER
95 bbl BGT
POSITION

FORMER
BERM
ORIENTATION

SOIL IMPACT
INITIAL DISCOVERY
VIA HYDROVAC
ADVANCEMENT
(82.5 ft., S82E)

FORMER
COMPRESSOR
BLDG.
POSITION

FORMER
SEPARATOR
UNIT
POSITION

FORMER
COMPRESSOR
UNIT
POSITION

TO
SAN JUAN
RIVER
(~ 1,300 ft. from edge of well pad)

METER
HOUSE

CATHODIC
⊕ WELL

ACCESS ROAD

TO
HWY 511

TEST HOLES, AGT, BGT, DRIP TANK LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE & BEARING FROM THE WELL HEAD (TAPE MEASURE & BRUNTON COMPASS WITH NON METALLIC TRIPOD). ALL OTHER STRUCTURES DISPLAYED ON THIS MAP ARE SOLELY FOR REFERENCE AND MAY OR MAY NOT BE TO SCALE. MAGNETIC DECLINATION USED ~ 10° E.



BP AMERICA PRODUCTION CO.
GUTIERREZ GC B # 1E
NE/4 SE/4 SEC. 4, 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: RELEASE INVESTIGATION
DRAWN BY: NJV
FILENAME: GUTIERREZ GC B 1E-SM (Fig-1).SKF
REVISED: 02-11-13 NJV

**SITE
MAP**
02/13

FIGURE 2



TO
SAN JUAN
RIVER
(> 2,000 ft. from edge of well pad)

OPEN FIELD
(agricul. use?)

EDGE OF
WELL PAD

BH-14
110', N30E

BH-2
145', N64.5E

BH-3
81.5', N49E

FORMER
PROD. TANK
POSITION

BH-13
172', N78E

WELL
HEAD

BH-8
35', N61E

BH-15
90', N86E

BH-10
141', N79E

FORMER
95 bbl BGT
POSITION

SOIL IMPACT
WESTERN EDGE
WITHIN FLOW LINE
TRENCH 2 ft. BELOW GRADE
(approx. 25 ft. from well head)

BH-9
26', S80E

BH-7
60', S78E

BH-5
82', S80E

BH-1
131', S87.5E

BH-11
163', S87E

SOIL IMPACT
INITIAL DISCOVERY
VIA HYDROVAC
ADVANCEMENT
(82.5 ft., S82E)

FORMER
COMPRESSOR
UNIT
POSITION

FORMER
SEPARATOR
UNIT
POSITION

TO
SAN JUAN
RIVER
(~ 1,300 ft. from edge of well pad)

METER
HOUSE

BH-6
117', S60.5E

BH-4
148', S70E

BH-12
177', S73E

ACCESS ROAD

LEGEND

- BH-3 - INDICATES LOW OVM READINGS
- BH-6 - INDICATES LOW & HIGH OVM READINGS
- BH-1 - INDICATES HIGH OVM READINGS

SEE FOLLOWING PAGES FOR SAMPLE NOTES & OTHER PERTINENT INFORMATION

BORE HOLES, BGT, PRODUCTION TANK LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE & BEARING FROM THE WELL HEAD (TAPE MEASURE & BRUNTON COMPASS WITH NON METALLIC TRIPOD). ALL OTHER STRUCTURES DISPLAYED ON THIS MAP ARE SOLELY FOR REFERENCE AND MAY OR MAY NOT BE TO SCALE. MAGNETIC DECLINATION USED ~ 10° E.



CATHODIC
WELL

TO
HWY 511

BP AMERICA PRODUCTION CO.
GUTIERREZ GC B # 1E
NE/4 SE/4 SEC. 4, 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: RELEASE INVESTIGATION
DRAWN BY: NJV
FILENAME: GUTIERREZ GC B 1E-SM2(Fig-2).SKF
REVISED: 02-17-14 NJV

**SITE
MAP**
02/14

BP AMERICA PRODUCTION COMPANY
Gutierrez GC B #1E - (Investigation of Historical Release of Undefined Origin)

Unit Letter I, Section 4, T29N, R9W - API Number: 30-045-23752

SAMPLE ID & MAP DESIGNATION	SAMPLE DATE	SAMPLE TIME	SAMPLING COLLECTION	FIELD OVM READING (ppm)	TPH - cumulative (ppm)	Benzene (ppm)	BTEX - cumulative (ppm)	Soil Description / Comments
BH-1 (131', S87.5E) @ 5'	02/21/13	0935	GRAB	211	NA	NA	NA	Cobbles (0'-2'), silty clay (2'-11'), clay (11'-15'), water saturated (12' +/-)
BH-1 (131', S87.5E) @ 10'	02/21/13	0943	GRAB	204	NA	NA	NA	
BH-1 (131', S87.5E) @ 13'	02/21/13	0953	GRAB	304	387	0.57	31.57	
BH-2 (145', N64.5E) @ 5'	02/21/13	1029	GRAB	8.6	NA	NA	NA	Cobbles (0'-2'), clay (2'-3'), cobble (3'-9'), clay (10'-14'), water saturated (12' +/-)
BH-2 (145', N64.5E) @ 10'	02/21/13	1031	GRAB	3.0	NA	NA	NA	
BH-2 (145', N64.5E) @ 13'	02/21/13	1045	GRAB	2.0	ND	NA	NA	
BH-3 (81.5', N49E) @ 5'	02/21/13	1122	GRAB	2.0	NA	NA	NA	Cobbles/clay mix (0'-13'), water saturated (12' +/-)
BH-3 (81.5', N49E) @ 10'	02/21/13	1124	GRAB	0.5	ND	NA	NA	
BH-3 (81.5', N49E) @ 13'	02/21/13	1140	GRAB	0.0	NA	NA	NA	
BH-4 (117', S60.5E) @ 5'	02/21/13	1203	GRAB	0.5	NA	NA	NA	Cobbles (0'-5'), clay (5'-10'), cobbles/sand mix (10'-14'), water saturated (12' +/-)
BH-4 (117', S60.5E) @ 10'	02/21/13	1206	GRAB	97	68	NA	NA	Sample collected - gray discoloration
BH-4 (117', S60.5E) @ 13'	02/21/13	1220	GRAB	37	NA	NA	NA	
BH-5 (82', S80E) @ 5'	02/22/13	0910	GRAB	176	NA	NA	NA	Cobbles (0'-2'), silty clay-stained (2'-11'), cobbles (11'-14'), water saturated (12' +/-)
BH-5 (82', S80E) @ 10'	02/22/13	0915	GRAB	79	NA	NA	NA	
BH-5 (82', S80E) @ 13'	02/22/13	0935	GRAB	30	NA	NA	NA	
BH-6 (117', S60.5E) @ 5'	02/22/13	0952	GRAB	5.3	NA	NA	NA	Cobbles (0'-3'), silty clay (3'-11'), sand & cobbles (11'-14'), water saturated (12' +/-)
BH-6 (117', S60.5E) @ 10'	02/22/13	0956	GRAB	3.1	NA	NA	NA	
BH-6 (117', S60.5E) @ 13'	02/22/13	1011	GRAB	0.8	NA	NA	NA	
BH-7 (50', S78E) @ 5'	02/22/13	1013	GRAB	299	NA	NA	NA	Cobbles (0'-2'), silty clay-gray stained (3'-11'), cobbles (11'-13'), water saturated (12' +/-)
BH-7 (50', S78E) @ 10'	02/22/13	1037	GRAB	88	NA	NA	NA	
BH-7 (50', S78E) @ 13'	02/22/13	1050	GRAB	7.5	NA	NA	NA	
BH-8 (35', N61E) @ 5'	02/22/13	1110	GRAB	1.2	NA	NA	NA	Cobbles (0'-3'), silty clay (3'-11'), cobbles (11'-14')
BH-8 (35', N61E) @ 10'	02/22/13	1112	GRAB	0.5	NA	NA	NA	
BH-8 (35', N61E) @ 13'	02/22/13	1126	GRAB	0.0	NA	NA	NA	
BH-9 (26', S80E) @ 5'	02/22/13	1252	GRAB	132	NA	NA	NA	Cobbles (0'-2'), silty clay (2'-10'), sandy with cobbles (10'-14')
BH-9 (26', S80E) @ 10'	02/22/13	1255	GRAB	24	NA	NA	NA	
BH-9 (26', S80E) @ 13'	02/22/13	1308	GRAB	12	NA	NA	NA	
BH-10 (141', N79E) @ 5'	02/22/13	1328	GRAB	143	NA	NA	NA	Cobbles (0'-2'), silty clay (2'-11'), clay (11'-15'), water saturated (12' +/-)
BH-10 (141', N79E) @ 10'	02/22/13	1331	GRAB	101	NA	NA	NA	
BH-10 (141', N79E) @ 13'	02/22/13	1343	GRAB	202	NA	NA	NA	
BH-11 (163', S87E) @ 5'	02/22/13	1402	GRAB	0.9	NA	NA	NA	Elevation 3' lower than well pad, silty clay (0'-9'), sand & cobbles (9'-10'), water saturated (8'-9' +/-)
BH-11 (163', S87E) @ 10'	02/22/13	1406	GRAB	0.0	NA	NA	NA	
BH-12 (177', S73E) @ 5'	02/26/13	0823	GRAB	0.0	NA	NA	NA	Elevation 3' lower than well pad, silty clay (0'-9'), sand & cobbles (9'), water saturated (8'-9' +/-)
BH-12 (177', S73E) @ 10'	02/26/13	0826	GRAB	0.0	NA	NA	NA	
BH-13 (172', N78E) @ 5'	02/26/13	1050	GRAB	0.0	NA	NA	NA	Elevation 3' lower than well pad, silty clay (0'-3'), cobbles (3'-10'), water saturated (8'-9' +/-)
BH-13 (172', N78E) @ 10'	02/26/13	1055	GRAB	0.0	NA	NA	NA	
BH-14 (110', N30E) @ 5'	02/26/13	1111	GRAB	0.0	NA	NA	NA	Silt (0'-8'), sand & cobbles (8'-10')
BH-14 (110', N30E) @ 10'	02/26/13	1113	GRAB	0.0	NA	NA	NA	

NMOC RELEASE CLOSURE STANDARDS (soils) -	100	100	10	50
--	-----	-----	----	----

FIGURE 3



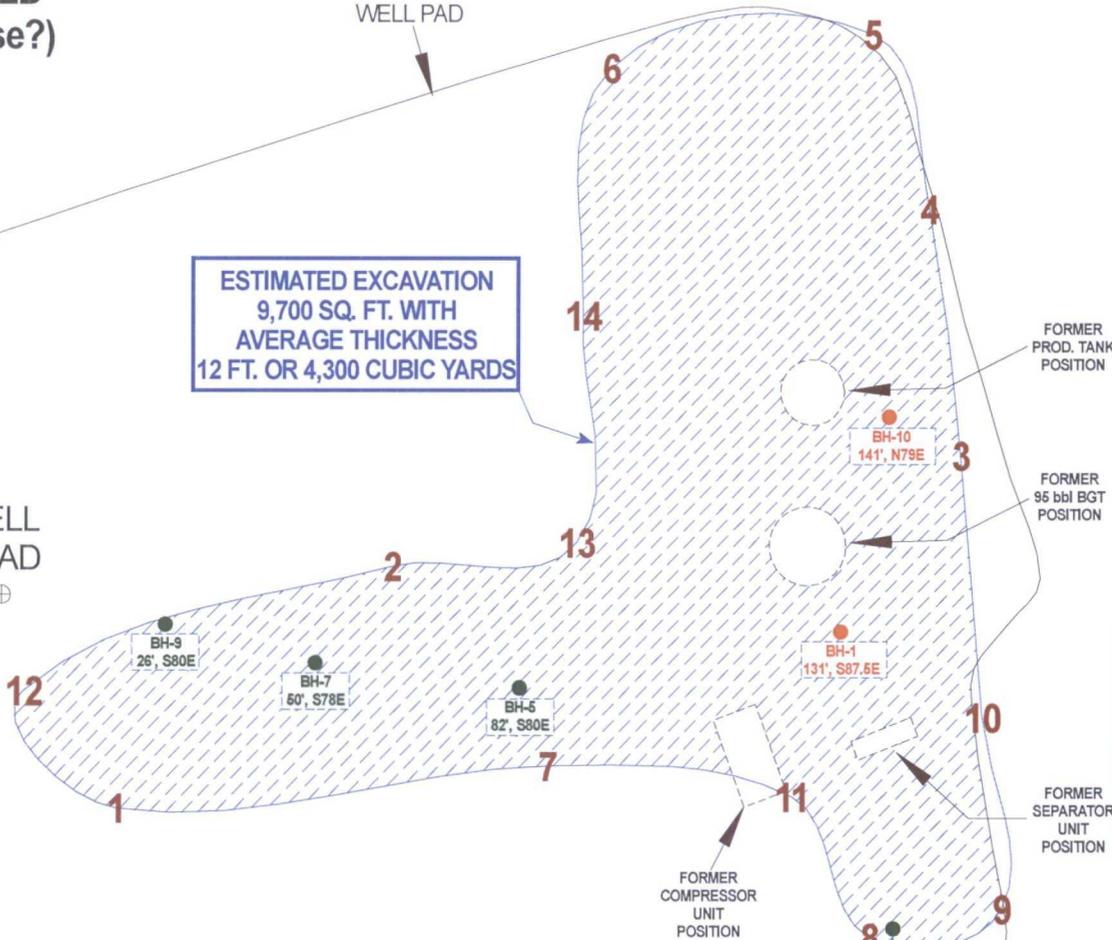
TO
SAN JUAN
RIVER
(> 2,000 ft. from edge of well pad)

OPEN FIELD
(agricul. use?)

EDGE OF
WELL PAD

ESTIMATED EXCAVATION
9,700 SQ. FT. WITH
AVERAGE THICKNESS
12 FT. OR 4,300 CUBIC YARDS

WELL
HEAD
⊕



TO
SAN JUAN
RIVER
(~ 1,300 ft. from edge of well pad)

METER
HOUSE

FORMER
COMPRESSOR
UNIT
POSITION

FORMER
PROD. TANK
POSITION

FORMER
95 bbl BGT
POSITION

FORMER
SEPARATOR
UNIT
POSITION

BH-4
148', S70E

BH-1
131', S87.5E

BH-5
82', S80E

BH-7
60', S78E

BH-9
26', S80E

LEGEND

- 1** - INDICATES SAMPLES COLLECTED FROM REMEDIATION EFFORT
- BH-5** - INDICATES LOW & HIGH OVM READINGS
- BH-1** - INDICATES HIGH OVM READINGS

SEE FOLLOWING PAGES FOR SAMPLE NOTES & OTHER PERTINENT INFORMATION

BORE HOLES, BGT, PRODUCTION TANK LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE & BEARING FROM THE WELL HEAD (TAPE MEASURE & BRUNTON COMPASS WITH NON METALLIC TRIPOD). ALL OTHER STRUCTURES DISPLAYED ON THIS MAP ARE SOLELY FOR REFERENCE AND MAY OR MAY NOT BE TO SCALE. MAGNETIC DECLINATION USED ~ 10° E.

0 30 60 FT.

CATHODIC
WELL
⊕

TO
HWY 511

BP AMERICA PRODUCTION CO.
GUTIERREZ GC B # 1E
NE/4 SE/4 SEC. 4, 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: RELEASE CLEANUP
DRAWN BY: NJV
FILENAME: GUTIERREZ GC B 1E-Rem (Fig-3).SKF
REVISED: 04-28-14 NJV

**SITE
MAP**
02/14

BP AMERICA PRODUCTION COMPANY

Gutierrez GC B #1E - (Cleanup of Historical Release of Undefined Origin)

Unit Letter I, Section 4, T29N, R9W - API Number: 30-045-23752

SAMPLE ID & MAP NUMBER		SAMPLE DATE	SAMPLE TIME	SAMPLING COLLECTION	FIELD OVM READING (ppm)	TPH - cumulative (ppm)	Benzene (ppm)	BTEX - cumulative (ppm)	Soil Description / Comments
37' S29E @ 6'	1	12/18/13	1433	GRAB	23	ND	ND	ND	Cobbles (0'-2'), silty clay (2'-10'), sandy with cobbles (10'-14')
61' N86E @ 7'	2	12/20/13	1344	GRAB	61	4.8	ND	0.28	Cobbles (0'-3'), silty clay (3'-10')
151' N82E @ 6'	3	01/03/14	0850	GRAB	0.0	ND	ND	ND	Cobbles (0'-2'), silty clay (2'-11'), clay (11'-15'), water saturated (12' +/-)
156' N68E @ 6'	4	01/03/14	0904	GRAB	0.0	ND	ND	ND	Cobbles (0'-2'), clay (2'-3'), cobble (3'-9'), clay (10'-14'), water saturated (12' +/-)
160' N58E @ 6'	5	01/03/14	0915	GRAB	0.0	ND	ND	ND	Cobbles (0'-2'), clay (2'-3'), cobble (3'-9'), clay (10'-14'), water saturated (12' +/-)
124' N50E @ 6'	6	01/03/14	0920	GRAB	0.0	ND	ND	ND	Cobbles/clay mix (0'-13'), water saturated (12' +/-)
89' S73E @ 6'	7	01/03/14	0930	GRAB	64.0	ND	ND	ND	Cobbles (0'-3'), silty clay (3'-11'), sand & cobbles (11'-14'), water saturated (12' +/-)
145' S69E @ 7'	8	01/08/14	1345	GRAB	1.8	ND	ND	ND	Cobbles (0'-4'), clay (4'-9'), cobbles/sand mix (9'-13'), water saturated (12' +/-)
163' S73E @ 7'	9	01/08/14	1349	GRAB	0.0	ND	ND	ND	Cobbles (0'-5'), clay (5'-10'), cobbles/sand mix (10'-14'), water saturated (12' +/-)
154' S83E @ 7'	10	01/08/14	1354	GRAB	0.0	ND	ND	ND	Elevation 3' lower than well pad, silty clay (0'-9'), sand & cobbles (9'-10'), water saturated (8'-9')
127' S76E @ 7'	11	01/08/14	1359	GRAB	67	ND	ND	ND	Cobbles (0'-3'), silty clay (3'-11'), sand & cobbles (11'-14'), water saturated (12' +/-)
15' S13E @ 6'	12	01/09/14	1305	GRAB	0.7	ND	ND	ND	Cobbles (0'-2'), silty clay (2'-10'), sandy with cobbles (10'-14')
90' N85E @ 6'	13	01/09/14	1312	GRAB	31.0	ND	ND	ND	Cobbles (0'-3'), silty clay (3'-10')
100' N65E @ 6'	14	01/09/14	1330	GRAB	0.5	ND	ND	ND	Cobbles/clay mix (0'-13'), water saturated (12' +/-)

NMOC D RELEASE CLOSURE STANDARDS (soils) -

100	100	10	50
-----	-----	----	----

Notes:

OVM - Organic vapor meter or photo-ionization detector (PID).
 TPH - Total petroleum hydrocarbons by US EPA Method 8015B.
 BTEX - Benzene, toluene, ethylbenzene, total xylenes by US EPA Method 8021B.

ppm - Parts per million or milligram per kilogram (mg/Kg).
 ND - Not detected at Reporting Limit.
 NMOC D - New Mexico Oil Conservation Division.

NMOC D RELEASE CLOSURE STANDARDS REFERENCE: "Guidelines for Remediation of Leaks, Spills and Releases" dated: August 13, 1993.

OVM CALIBRATION: RESPONSE FACTOR = 0.52 or 1.00, CALIBRATION GAS - 100 ppm ISOBUTYLENE.

OVM CALIBRATION DATA

DATE	TIME	READING
12/18/13	0840	100.2
12/20/13	1005	100.4

DATE	TIME	READING
01/03/14	0935	100.8
01/08/14	1410	100.2

DATE	TIME	READING
01/09/14	1335	101.0

FIGURE 4



TO
SAN JUAN
RIVER
(> 2,000 ft. from edge of well pad)

OPEN FIELD
(agricul. use?)

EDGE OF WELL PAD

MW #3

107', N50E

WELL HEAD

82', S80E

MW #2

153', S72E

MW #1

FORMER
PROD. TANK
POSITION

FORMER
95 bbl BGT
POSITION

EXCAVATION
PERIMETER

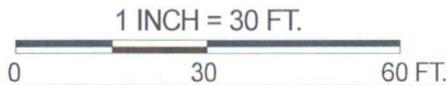
TO
SAN JUAN
RIVER
(~ 1,300 ft. from edge of well pad)

METER
HOUSE

CATHODIC
WELL

ACCESS ROAD

TO
HWY 511



BORE HOLES, BGT, PRODUCTION TANK LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE & BEARING FROM THE WELL HEAD (TAPE MEASURE & BRUNTON COMPASS WITH NON METALLIC TRIPOD). ALL OTHER STRUCTURES DISPLAYED ON THIS MAP ARE SOLELY FOR REFERENCE AND MAY OR MAY NOT BE TO SCALE. MAGNETIC DECLINATION USED - 10° E.

BP AMERICA PRODUCTION CO.
GUTIERREZ GC B # 1E
NE/4 SE/4 SEC. 4, T29N, R9W
SAN JUAN COUNTY, NEW MEXICO

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

PROJECT: MW INSTALLATIONS
DRAWN BY: NJV
FILENAME: GUTIERREZ GC B 1E-MW Loc (Fig-4).SKF
REVISED: 04-28-14 NJV

**SITE
MAP**
04/14

FIELD BORING LOG

BORING ID: MW-1

PROJECT: BP: Gutierrez GC B 1E
CLIENT: BP America Production Co.
DRILLING CONTRACTOR: Kyvek
EQUIPMENT USED: CME-95
DATE START: 4/15/2014 DATE FINISH: 4/15/2014 DRILLER: C Padilla LOGGED BY: J Blagg
TOTAL DEPTH: 18' CASING TYPE & SIZE: 2-Inch PVC SLOT SIZE: 0.010
COMMENTS: Well Located 153' S72E

DEPTH FEET	SAMPLE TIME	SAMPLE TYPE	Well Info	SAMPLE DESCRIPTION
	0850 am	Cuttings	Cement	Silty Sand Start Drilling
			Bentonite	
5'				
10'			10/20 Sand	
15'				River Cobbles
	0940 am			Reach TD
			Total Depth Drilled = 18'	
20'				
30'				

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

FIELD BORING LOG

BORING ID: MW-2

PROJECT: BP: Gutierrez GC B 1E
 CLIENT: BP America Production Co.
 DRILLING CONTRACTOR: Kyvek
 EQUIPMENT USED: CME-95
 DATE START: 4/15/2014 DATE FINISH: 4/15/2014 DRILLER: C Padilla LOGGED BY: J Blagg
 TOTAL DEPTH: 18' CASING TYPE & SIZE: 2-Inch PVC SLOT SIZE: 0.010
 COMMENTS: Well Located 82' S80E

DEPTH FEET	SAMPLE TIME	SAMPLE TYPE	Well Info	SAMPLE DESCRIPTION
	1100 am	Cuttings	Cement	Silty Sand Start Drilling
			Bentonite	
5'				
10'			10/20 Sand	
15'				River Cobbles
	1155 am			Reach TD
20'			Total Depth Drilled = 18'	
30'				

FIELD BORING LOG

BORING ID: MW-3

PROJECT: BP: Gutierrez GC B 1E
 CLIENT: BP America Production Co.
 DRILLING CONTRACTOR: Kyvek
 EQUIPMENT USED: CME-95
 DATE START: 4/16/2014 DATE FINISH: 4/16/2014 DRILLER: C Padilla LOGGED BY: J Blagg
 TOTAL DEPTH: 18' CASING TYPE & SIZE: 2-Inch PVC SLOT SIZE: 0.010
 COMMENTS: Well Located 107' N50E

DEPTH FEET	SAMPLE TIME	SAMPLE TYPE	Well Info	SAMPLE DESCRIPTION
	0810 am	Cuttings	Cement Bentonite	Silty Sand Start Drilling
5'				
10			10/20 Sand	
15'				River Cobbles
	0945 am			Reach TD
20			Total Depth Drilled = 18'	
30				

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

Gutierrez GC B # 1E UNIT I, SEC. 4, T29N, R9W
--

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : April 24, 2014
 Filename : Gutierrez GC B 1E mw log 04-24-14.xls

DEVELOPER / SAMPLER : N J V
 PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	103.09	89.92	13.17	20.00	1105	6.60	1,900	12.7	3.50
2	103.31	89.84	13.47	20.35	1200	6.57	1,900	13.0	3.50
3	103.09	89.89	13.20	20.00	-	-	-	-	-

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800
DATE & TIME =	04/24/14	0700

NOTES : Volume of water purged from well prior to sampling: V = pi X r² X h X 7.48 gal./ft³ X 3 (wellbores).
 (i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes: 2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2".

Monitor wells (MW) installed on April 17 & 18, 2014. MW # 1 & #2 developed on April 23, 2014. Excellent recovery in MW #1 & # 2, brownish tint in appearance, no physical indication of any hydrocarbon impacts within purged water.

Collected samples from MW #1 & #2 for BTEX per US EPA Method 8021B and general chemistry parameters.
 Purged wells using 2 inch submersible electrical pump , new / clear vinyl tubing , and with brass adjustable flow valve attachment added near sampling end of tubing .

Top of casing MW # 1 ~ 2.10 ft. , MW # 2 ~ 2.70 ft. , MW # 3 ~ 2.30 ft. above grade.

on-site	10:00 AM	temp	47 F
off-site	12:15 PM	temp	56 F
sky cond.	Mostly sunny		
wind speed	0 - 10	direct.	W

BP AMERICA PRODUCTION COMPANY

Gutierrez GC B # 1E - (Release of Unidentified Source[s])

Unit Letter I, Section 4, T29N, R09W - API Number: 30-045-23752

Field & Laboratory Data from Groundwater Monitor Wells

FIELD PARAMETERS								
SAMPLE ID	SAMPLE DATE	SAMPLE TIME	DEPTH TO WATER (feet)	TOTAL MW LENGTH (feet)	pH	Conductivity (µmhos/cm)	Temperature (°Celcius)	Volume Purged (gallons)
MW # 1 (source area)	04/24/14	1105	13.17	20.00	6.60	1,900	12.7	3.50
MW # 2 (source area)	04/24/14	1200	13.47	20.35	6.57	1,900	13.0	3.50
NMWQCC STANDARDS -					6 - 9			

LABORATORY PARAMETERS										
SAMPLE ID	Fluoride (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate- Nitrite as N (mg/L)	Iron (mg/L)	TDS (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl - benzene (µg/L)	Total Xylenes (µg/L)
MW # 1 (source area)	0.70	75	4,400	ND	3.3	6,980	ND	ND	ND	ND
MW # 2 (source area)	0.62	61	4,000	ND	2.3	6,210	ND	ND	4.1	23
NMWQCC STANDARDS -	1.6	250	600	10	1	1,000	10	750	750	620

Notes: Depth to water measured from casing top of monitor well.

- MW - Monitor well
- µmhos/cm - Micromhos per centimeter
- TDS - Total dissolved solids
- mg/L - Milligram per Liter
- µg/L - Microgram per liter
- ND - Not detected at Reporting Limit
- NMWQCC - New Mexico Water Quality Control Commission

Analytical Report

Lab Order 1302917

Date Reported: 3/5/2013

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: BH-1 @ 13'

Project: Guitierrez GC B1E

Collection Date: 2/21/2013 9:53:00 AM

Lab ID: 1302917-001

Matrix: SOIL

Received Date: 2/28/2013 9:59:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: MMD
Diesel Range Organics (DRO)	37	9.9		mg/Kg	1	3/4/2013 7:31:59 PM
Surr: DNOP	102	72.4-120		%REC	1	3/4/2013 7:31:59 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	350	47		mg/Kg	10	3/1/2013 11:43:08 PM
Surr: BFB	196	84-116	S	%REC	10	3/1/2013 11:43:08 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	0.57	0.47		mg/Kg	10	3/1/2013 11:43:08 PM
Toluene	ND	0.47		mg/Kg	10	3/1/2013 11:43:08 PM
Ethylbenzene	1.0	0.47		mg/Kg	10	3/1/2013 11:43:08 PM
Xylenes, Total	30	0.95		mg/Kg	10	3/1/2013 11:43:08 PM
Surr: 4-Bromofluorobenzene	117	80-120		%REC	10	3/1/2013 11:43:08 PM

Qualifiers: * Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 P Sample pH greater than 2
 RL Reporting Detection Limit

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

Analytical Report

Lab Order 1302917

Date Reported: 3/5/2013

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: BH-2 @ 13'

Project: Guterrez GC B1E

Collection Date: 2/21/2013 10:45:00 AM

Lab ID: 1302917-002

Matrix: SOIL

Received Date: 2/28/2013 9:59:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: MMD
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	3/4/2013 8:37:01 PM
Surr: DNOP	101	72.4-120		%REC	1	3/4/2013 8:37:01 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/1/2013 12:42:01 PM
Surr: BFB	111	84-116		%REC	1	3/1/2013 12:42:01 PM

Qualifiers: * Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

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

Analytical Report

Lab Order 1302917

Date Reported: 3/5/2013

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: BH-3 @ 10'

Project: Guterrez GC B1E

Collection Date: 2/21/2013 11:24:00 AM

Lab ID: 1302917-003

Matrix: SOIL

Received Date: 2/28/2013 9:59:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: MMD
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	3/4/2013 8:58:34 PM
Surr: DNOP	103	72.4-120		%REC	1	3/4/2013 8:58:34 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/1/2013 3:34:36 PM
Surr: BFB	110	84-116		%REC	1	3/1/2013 3:34:36 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Analytical Report

Lab Order 1302917

Date Reported: 3/5/2013

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: BH-4 @ 10'

Project: Guitierrez GC B1E

Collection Date: 2/21/2013 12:06:00 PM

Lab ID: 1302917-004

Matrix: SOIL

Received Date: 2/28/2013 9:59:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: MMD
Diesel Range Organics (DRO)	68	10		mg/Kg	1	3/4/2013 9:41:58 PM
Surr: DNOP	106	72.4-120		%REC	1	3/4/2013 9:41:58 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	3/1/2013 4:03:21 PM
Surr: BFB	117	84-116	S	%REC	1	3/1/2013 4:03:21 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1302917

05-Mar-13

Client: Blagg Engineering

Project: Guitierrez GC B1E

Sample ID	MB-6294	SampType:	MBLK	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	PBS	Batch ID:	6294	RunNo:	8953					
Prep Date:	3/1/2013	Analysis Date:	3/4/2013	SeqNo:	255778	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		100	72.4	120			

Sample ID	LCS-6294	SampType:	LCS	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	6294	RunNo:	8953					
Prep Date:	3/1/2013	Analysis Date:	3/4/2013	SeqNo:	255780	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	98.3	47.4	122			
Surr: DNOP	5.2		5.000		104	72.4	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1302917

05-Mar-13

Client: Blagg Engineering

Project: Guiterrez GC B1E

Sample ID MB-6284	SampType: MBLK	TestCode: EPA Method 8015B: Gasoline Range								
Client ID: PBS	Batch ID: 6284	RunNo: 8927								
Prep Date: 2/28/2013	Analysis Date: 3/1/2013	SeqNo: 254976	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		108	84	116			

Sample ID LCS-6284	SampType: LCS	TestCode: EPA Method 8015B: Gasoline Range								
Client ID: LCSS	Batch ID: 6284	RunNo: 8927								
Prep Date: 2/28/2013	Analysis Date: 3/1/2013	SeqNo: 254977	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	110	62.6	136			
Surr: BFB	1100		1000		113	84	116			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1302917

05-Mar-13

Client: Blagg Engineering

Project: Guitierrez GC BIE

Sample ID	MB-6284	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	6284	RunNo:	8927					
Prep Date:	2/28/2013	Analysis Date:	3/1/2013	SeqNo:	255094	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Sample ID	LCS-6284	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	6284	RunNo:	8927					
Prep Date:	2/28/2013	Analysis Date:	3/1/2013	SeqNo:	255100	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.050	1.000	0	94.1	80	120			
Toluene	0.93	0.050	1.000	0	93.0	80	120			
Ethylbenzene	0.93	0.050	1.000	0	92.8	80	120			
Xylenes, Total	2.8	0.10	3.000	0	93.9	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		112	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Sample Log-In Check List

Client Name: **BLAGG** Work Order Number: 1302917
 Received by/date: AG 02/28/13
 Logged By: **Michelle Garcia** 2/28/2013 9:59:00 AM *Michelle Garcia*
 Completed By: **Michelle Garcia** 2/28/2013 10:17:23 AM *Michelle Garcia*
 Reviewed By: IO 02/28/2013

Chain of Custody

- 1. Were seals intact? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? Courier

Log In

- 4. Coolers are present? (see 19. for cooler specific information) Yes No NA
- 5. Was an attempt made to cool the samples? Yes No NA
- 6. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 7. Sample(s) in proper container(s)? Yes No
- 8. Sufficient sample volume for indicated test(s)? Yes No
- 9. Are samples (except VOA and ONG) properly preserved? Yes No
- 10. Was preservative added to bottles? Yes No NA
- 11. VOA vials have zero headspace? Yes No No VOA Vials
- 12. Were any sample containers received broken? Yes No
- 13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes No
- 14. Are matrices correctly identified on Chain of Custody? Yes No
- 15. Is it clear what analyses were requested? Yes No
- 16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes No

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: _____

Special Handling (if applicable)

- 17. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.9	Good	Yes			

Chain-of-Custody Record

Turn-Around Time: BY WED 3/6/2013

Standard Rush

Project Name: GUIITERREZ GC B 1E

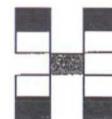
Project #:

Project Manager: J. Blagg

Sampler: J. Blagg

On Ice: Yes No

Sample Temperature: 10



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: BLAGG ENGINEERING INC.

BP AMERICA

Mailing Address: P.O. Box 87
Bloomfield NM 87413

Phone #: 505-632-1199

email or Fax#:

QA/QC Package:
 Standard Level 4 (Full Validation)

Accreditation
 NELAP Other _____

EDD (Type) _____

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + THM's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)	
2/21/13	0953	Soil	BH-1 @ 13'	4oz x 1	cell	1302917 -001	X	X											
"	1045	"	BH-2 @ 13'	"	"	-002		X											
"	1124	"	BH-3 @ 10'	"	"	-003		X											
"	1206	"	BH-4 @ 10'	"	"	-004		X											

Date: 2/27/13 Time: 1430 Relinquished by: JH By

Date: 2/27/13 Time: 1430 Received by: Christi Walker

Date: 2/27/13 Time: 1720 Relinquished by: Christi Walker

Date: 02/28/13 Time: 0959 Received by: [Signature]

Remarks: GRU + DRU ON 8015 B

Bill BP: PARKER: ZEVH01B6T2

BP contact: Jeff Pece

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 37' S29E@6'

Project: Gutierrez GC B 1E

Collection Date: 12/18/2013 2:33:00 PM

Lab ID: 1312A29-001

Matrix: SOIL

Received Date: 12/21/2013 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/26/2013 8:28:09 PM	10973
Surr: DNOP	97.5	66-131		%REC	1	12/26/2013 8:28:09 PM	10973
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/24/2013 3:03:54 PM	10957
Surr: BFB	91.5	74.5-129		%REC	1	12/24/2013 3:03:54 PM	10957
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	12/24/2013 3:03:54 PM	10957
Toluene	ND	0.048		mg/Kg	1	12/24/2013 3:03:54 PM	10957
Ethylbenzene	ND	0.048		mg/Kg	1	12/24/2013 3:03:54 PM	10957
Xylenes, Total	ND	0.096		mg/Kg	1	12/24/2013 3:03:54 PM	10957
Surr: 4-Bromofluorobenzene	99.3	80-120		%REC	1	12/24/2013 3:03:54 PM	10957
EPA METHOD 300.0: ANIONS							Analyst: SRM
Chloride	ND	30		mg/Kg	20	12/23/2013 12:21:47 PM	10954

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1312A29

27-Dec-13

Client: Blagg Engineering

Project: Gutierrez GC B 1E

Sample ID	MB-10954	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	10954	RunNo:	15706					
Prep Date:	12/23/2013	Analysis Date:	12/23/2013	SeqNo:	452924	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-10954	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	10954	RunNo:	15706					
Prep Date:	12/23/2013	Analysis Date:	12/23/2013	SeqNo:	452925	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.3	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1312A29

27-Dec-13

Client: Blagg Engineering

Project: Gutierrez GC B 1E

Sample ID	MB-10973	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	10973	RunNo:	15725					
Prep Date:	12/24/2013	Analysis Date:	12/26/2013	SeqNo:	454007	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.6		10.00		96.1	66	131			

Sample ID	LCS-10973	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	10973	RunNo:	15725					
Prep Date:	12/24/2013	Analysis Date:	12/26/2013	SeqNo:	454034	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	64	10	50.00	0	128	60.8	145			
Surr: DNOP	5.9		5.000		118	66	131			

Sample ID	1312A29-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	37' S29E@6'	Batch ID:	10973	RunNo:	15725					
Prep Date:	12/24/2013	Analysis Date:	12/26/2013	SeqNo:	454599	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	9.8	48.97	0	116	47.4	148			
Surr: DNOP	5.0		4.897		102	66	131			

Sample ID	1312A29-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	37' S29E@6'	Batch ID:	10973	RunNo:	15725					
Prep Date:	12/24/2013	Analysis Date:	12/26/2013	SeqNo:	454600	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.10	0	115	47.4	148	2.66	22.7	
Surr: DNOP	5.0		5.010		99.2	66	131	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1312A29
27-Dec-13

Client: Blagg Engineering
Project: Gutierrez GC B 1E

Sample ID	MB-10957	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	10957	RunNo:	15727					
Prep Date:	12/23/2013	Analysis Date:	12/24/2013	SeqNo:	453870	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		87.7	74.5	129			

Sample ID	LCS-10957	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	10957	RunNo:	15727					
Prep Date:	12/23/2013	Analysis Date:	12/24/2013	SeqNo:	453871	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	74.5	126			
Surr: BFB	960		1000		95.6	74.5	129			

Sample ID	1312A02-005AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	BatchQC	Batch ID:	10957	RunNo:	15727					
Prep Date:	12/23/2013	Analysis Date:	12/25/2013	SeqNo:	453886	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	4.9	24.41	0	121	69.5	145			
Surr: BFB	930		976.6		95.6	74.5	129			

Sample ID	1312A02-005AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	BatchQC	Batch ID:	10957	RunNo:	15727					
Prep Date:	12/23/2013	Analysis Date:	12/25/2013	SeqNo:	453887	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	4.9	24.39	0	119	69.5	145	1.49	20	
Surr: BFB	900		975.6		92.4	74.5	129	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1312A29

27-Dec-13

Client: Blagg Engineering

Project: Gutierrez GC B 1E

Sample ID	MB-10957	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	10957	RunNo:	15727					
Prep Date:	12/23/2013	Analysis Date:	12/24/2013	SeqNo:	453911	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.99		1.000		99.4	80	120			

Sample ID	LCS-10957	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	10957	RunNo:	15727					
Prep Date:	12/23/2013	Analysis Date:	12/24/2013	SeqNo:	453912	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	108	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.1	0.050	1.000	0	106	80	120			
Xylenes, Total	3.1	0.10	3.000	0	105	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1312A29**

RcptNo: **1**

Received by/date: *[Signature]* 12/21/13

Logged By: **Lindsay Mangin** 12/21/2013 8:20:00 AM *[Signature]*

Completed By: **Lindsay Mangin** 12/21/2013 8:32:40 AM *[Signature]*

Reviewed By: S.M. 12/23/13

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? Courier

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels? Yes No
(Note discrepancies on chain of custody)
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met? Yes No
(If no, notify customer for authorization.)

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: _____

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Analytical Report

Lab Order 1312A61

Date Reported: 12/27/2013

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: Gutierrez GC B 1 E
Lab ID: 1312A61-001

Matrix: SOIL

Client Sample ID: 61' N86E@7'
Collection Date: 12/20/2013 1:44:00 PM
Received Date: 12/23/2013 10:00:00 AM

Table with 7 columns: Analyses, Result, RL, Qual, Units, DF, Date Analyzed, Batch. Rows include EPA METHOD 8015D: DIESEL RANGE ORGANICS, EPA METHOD 8015D: GASOLINE RANGE, EPA METHOD 8021B: VOLATILES, and EPA METHOD 300.0: ANIONS.

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Table with 2 columns: Qualifiers and their descriptions. Includes codes like *, E, J, O, R, S, B, H, ND, P, RL and their corresponding meanings.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1312A61

27-Dec-13

Client: Blagg Engineering

Project: Gutierrez GC B 1 E

Sample ID	MB-10997	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	10997	RunNo:	15755					
Prep Date:	12/26/2013	Analysis Date:	12/26/2013	SeqNo:	454831	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-10997	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	10997	RunNo:	15755					
Prep Date:	12/26/2013	Analysis Date:	12/26/2013	SeqNo:	454832	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.5	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1312A61

27-Dec-13

Client: Blagg Engineering

Project: Gutierrez GC B 1 E

Sample ID	MB-10940	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	10940	RunNo:	15679					
Prep Date:	12/23/2013	Analysis Date:	12/24/2013	SeqNo:	452733	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	12		10.00		117	66	131			

Sample ID	LCS-10940	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	10940	RunNo:	15679					
Prep Date:	12/23/2013	Analysis Date:	12/24/2013	SeqNo:	452736	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	70	10	50.00	0	140	60.8	145			
Surr: DNOP	6.5		5.000		131	66	131			

Sample ID	1312A14-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	10940	RunNo:	15679					
Prep Date:	12/23/2013	Analysis Date:	12/24/2013	SeqNo:	453506	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	120	9.9	49.41	57.16	132	47.4	148			
Surr: DNOP	4.9		4.941		99.7	66	131			

Sample ID	1312A14-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	10940	RunNo:	15679					
Prep Date:	12/23/2013	Analysis Date:	12/24/2013	SeqNo:	453507	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	120	9.9	49.55	57.16	122	47.4	148	4.04	22.7	
Surr: DNOP	5.2		4.955		104	66	131	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1312A61

27-Dec-13

Client: Blagg Engineering

Project: Gutierrez GC B 1 E

Sample ID	MB-10957	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	10957	RunNo:	15727					
Prep Date:	12/23/2013	Analysis Date:	12/24/2013	SeqNo:	453870	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		87.7	74.5	129			

Sample ID	LCS-10957	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	10957	RunNo:	15727					
Prep Date:	12/23/2013	Analysis Date:	12/24/2013	SeqNo:	453871	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	74.5	126			
Surr: BFB	960		1000		95.6	74.5	129			

Sample ID	1312A02-005AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	BatchQC	Batch ID:	10957	RunNo:	15727					
Prep Date:	12/23/2013	Analysis Date:	12/25/2013	SeqNo:	453886	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	4.9	24.41	0	121	69.5	145			
Surr: BFB	930		976.6		95.6	74.5	129			

Sample ID	1312A02-005AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	BatchQC	Batch ID:	10957	RunNo:	15727					
Prep Date:	12/23/2013	Analysis Date:	12/25/2013	SeqNo:	453887	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	4.9	24.39	0	119	69.5	145	1.49	20	
Surr: BFB	900		975.6		92.4	74.5	129	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1312A61

27-Dec-13

Client: Blagg Engineering

Project: Gutierrez GC B 1 E

Sample ID	MB-10957	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	10957	RunNo:	15727					
Prep Date:	12/23/2013	Analysis Date:	12/24/2013	SeqNo:	453911	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.99		1.000		99.4	80	120			

Sample ID	LCS-10957	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	10957	RunNo:	15727					
Prep Date:	12/23/2013	Analysis Date:	12/24/2013	SeqNo:	453912	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	108	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.1	0.050	1.000	0	106	80	120			
Xylenes, Total	3.1	0.10	3.000	0	105	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: 1312A61

RcptNo: 1

Received by/date: AG 12/23/13

Logged By: **Lindsay Mangin** 12/23/2013 10:00:00 AM *[Signature]*

Completed By: **Lindsay Mangin** 12/23/2013 10:38:11 AM *[Signature]*

Reviewed By: mg 12/23/13

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? Courier

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels? Yes No
(Note discrepancies on chain of custody)
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met? Yes No
(If no, notify customer for authorization.)

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: _____

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.8	Good	Yes			

Analytical Report

Lab Order 1401103

Date Reported: 1/9/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 151' N82E@6'

Project: Gutierrez GC B 1E

Collection Date: 1/3/2014 8:50:00 AM

Lab ID: 1401103-001

Matrix: SOIL

Received Date: 1/6/2014 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/7/2014 10:55:16 AM	11080
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/7/2014 10:55:16 AM	11080
Surr: DNOP	86.5	66-131		%REC	1	1/7/2014 10:55:16 AM	11080
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/7/2014 4:59:14 PM	11087
Surr: BFB	86.7	74.5-129		%REC	1	1/7/2014 4:59:14 PM	11087
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.096		mg/Kg	1	1/7/2014 4:59:14 PM	11087
Benzene	ND	0.048		mg/Kg	1	1/7/2014 4:59:14 PM	11087
Toluene	ND	0.048		mg/Kg	1	1/7/2014 4:59:14 PM	11087
Ethylbenzene	ND	0.048		mg/Kg	1	1/7/2014 4:59:14 PM	11087
Xylenes, Total	ND	0.096		mg/Kg	1	1/7/2014 4:59:14 PM	11087
Surr: 4-Bromofluorobenzene	94.9	80-120		%REC	1	1/7/2014 4:59:14 PM	11087
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	77	30		mg/Kg	20	1/7/2014 4:04:55 PM	11104

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 156' N68E @ 6'

Project: Gutierrez GC B 1E

Collection Date: 1/3/2014 9:04:00 AM

Lab ID: 1401103-002

Matrix: SOIL

Received Date: 1/6/2014 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/7/2014 11:17:04 AM	11080
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/7/2014 11:17:04 AM	11080
Surr: DNOP	97.1	66-131		%REC	1	1/7/2014 11:17:04 AM	11080
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/7/2014 6:25:01 PM	11087
Surr: BFB	88.8	74.5-129		%REC	1	1/7/2014 6:25:01 PM	11087
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	1/7/2014 6:25:01 PM	11087
Benzene	ND	0.050		mg/Kg	1	1/7/2014 6:25:01 PM	11087
Toluene	ND	0.050		mg/Kg	1	1/7/2014 6:25:01 PM	11087
Ethylbenzene	ND	0.050		mg/Kg	1	1/7/2014 6:25:01 PM	11087
Xylenes, Total	ND	0.10		mg/Kg	1	1/7/2014 6:25:01 PM	11087
Surr: 4-Bromofluorobenzene	98.7	80-120		%REC	1	1/7/2014 6:25:01 PM	11087
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	1/7/2014 4:17:20 PM	11104

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 160' N58E @ 6'

Project: Gutierrez GC B 1E

Collection Date: 1/3/2014 9:15:00 AM

Lab ID: 1401103-003

Matrix: SOIL

Received Date: 1/6/2014 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/7/2014 3:25:27 PM	11080
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/7/2014 3:25:27 PM	11080
Surr: DNOP	89.8	66-131		%REC	1	1/7/2014 3:25:27 PM	11080
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/7/2014 6:53:37 PM	11087
Surr: BFB	86.2	74.5-129		%REC	1	1/7/2014 6:53:37 PM	11087
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.098		mg/Kg	1	1/7/2014 6:53:37 PM	11087
Benzene	ND	0.049		mg/Kg	1	1/7/2014 6:53:37 PM	11087
Toluene	ND	0.049		mg/Kg	1	1/7/2014 6:53:37 PM	11087
Ethylbenzene	ND	0.049		mg/Kg	1	1/7/2014 6:53:37 PM	11087
Xylenes, Total	ND	0.098		mg/Kg	1	1/7/2014 6:53:37 PM	11087
Surr: 4-Bromofluorobenzene	93.8	80-120		%REC	1	1/7/2014 6:53:37 PM	11087
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	1/7/2014 5:19:23 PM	11104

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 124' N50E @ 6'

Project: Gutierrez GC B 1E

Collection Date: 1/3/2014 9:20:00 AM

Lab ID: 1401103-004

Matrix: SOIL

Received Date: 1/6/2014 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/7/2014 3:47:18 PM	11080
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/7/2014 3:47:18 PM	11080
Surr: DNOP	101	66-131		%REC	1	1/7/2014 3:47:18 PM	11080
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/7/2014 7:22:18 PM	11087
Surr: BFB	87.8	74.5-129		%REC	1	1/7/2014 7:22:18 PM	11087
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.096		mg/Kg	1	1/7/2014 7:22:18 PM	11087
Benzene	ND	0.048		mg/Kg	1	1/7/2014 7:22:18 PM	11087
Toluene	ND	0.048		mg/Kg	1	1/7/2014 7:22:18 PM	11087
Ethylbenzene	ND	0.048		mg/Kg	1	1/7/2014 7:22:18 PM	11087
Xylenes, Total	ND	0.096		mg/Kg	1	1/7/2014 7:22:18 PM	11087
Surr: 4-Bromofluorobenzene	96.6	80-120		%REC	1	1/7/2014 7:22:18 PM	11087
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	1/7/2014 5:31:48 PM	11104

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 89' S73E @6'

Project: Gutierrez GC B 1E

Collection Date: 1/3/2014 9:30:00 AM

Lab ID: 1401103-005

Matrix: SOIL

Received Date: 1/6/2014 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/7/2014 4:09:13 PM	11080
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/7/2014 4:09:13 PM	11080
Surr: DNOP	84.0	66-131		%REC	1	1/7/2014 4:09:13 PM	11080
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/7/2014 7:50:59 PM	11087
Surr: BFB	96.4	74.5-129		%REC	1	1/7/2014 7:50:59 PM	11087
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.095		mg/Kg	1	1/7/2014 7:50:59 PM	11087
Benzene	ND	0.047		mg/Kg	1	1/7/2014 7:50:59 PM	11087
Toluene	ND	0.047		mg/Kg	1	1/7/2014 7:50:59 PM	11087
Ethylbenzene	ND	0.047		mg/Kg	1	1/7/2014 7:50:59 PM	11087
Xylenes, Total	0.12	0.095		mg/Kg	1	1/7/2014 7:50:59 PM	11087
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	1/7/2014 7:50:59 PM	11087
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	1/7/2014 5:44:12 PM	11104

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1401103

09-Jan-14

Client: Blagg Engineering

Project: Gutierrez GC B 1E

Sample ID	MB-11104	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	11104	RunNo:	15938					
Prep Date:	1/7/2014	Analysis Date:	1/7/2014	SeqNo:	459544	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-11104	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	11104	RunNo:	15938					
Prep Date:	1/7/2014	Analysis Date:	1/7/2014	SeqNo:	459545	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.9	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1401103

09-Jan-14

Client: Blagg Engineering

Project: Gutierrez GC B 1E

Sample ID	MB-11080	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	11080	RunNo:	15891					
Prep Date:	1/6/2014	Analysis Date:	1/6/2014	SeqNo:	458449	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.3		10.00		82.9	66	131			

Sample ID	LCS-11080	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	11080	RunNo:	15891					
Prep Date:	1/6/2014	Analysis Date:	1/6/2014	SeqNo:	458450	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.00	0	114	60.8	145			
Surr: DNOP	4.5		5.000		90.0	66	131			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1401103

09-Jan-14

Client: Blagg Engineering

Project: Gutierrez GC B 1E

Sample ID	MB-11087	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	11087	RunNo:	15923					
Prep Date:	1/6/2014	Analysis Date:	1/7/2014	SeqNo:	459260	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	840		1000		84.2	74.5	129			

Sample ID	LCS-11087	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	11087	RunNo:	15923					
Prep Date:	1/6/2014	Analysis Date:	1/7/2014	SeqNo:	459261	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	74.5	126			
Surr: BFB	980		1000		97.5	74.5	129			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1401103

09-Jan-14

Client: Blagg Engineering

Project: Gutierrez GC B 1E

Sample ID	MB-11087	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	11087	RunNo:	15923					
Prep Date:	1/6/2014	Analysis Date:	1/7/2014	SeqNo:	459281	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.93		1.000		93.3	80	120			

Sample ID	LCS-11087	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	11087	RunNo:	15923					
Prep Date:	1/6/2014	Analysis Date:	1/7/2014	SeqNo:	459282	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.0	0.10	1.000	0	101	64.5	131			
Benzene	0.96	0.050	1.000	0	96.2	80	120			
Toluene	0.95	0.050	1.000	0	95.0	80	120			
Ethylbenzene	0.96	0.050	1.000	0	96.5	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.5	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID	1401103-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	151' N82E@6'	Batch ID:	11087	RunNo:	15923					
Prep Date:	1/6/2014	Analysis Date:	1/7/2014	SeqNo:	459285	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.93	0.096	0.9606	0	97.2	58.5	163			
Benzene	0.87	0.048	0.9606	0	90.5	67.4	135			
Toluene	0.88	0.048	0.9606	0.009540	90.9	72.6	135			
Ethylbenzene	0.92	0.048	0.9606	0.007929	94.5	69.4	143			
Xylenes, Total	2.7	0.096	2.882	0.01674	93.8	70.8	144			
Surr: 4-Bromofluorobenzene	1.0		0.9606		104	80	120			

Sample ID	1401103-001AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	151' N82E@6'	Batch ID:	11087	RunNo:	15923					
Prep Date:	1/6/2014	Analysis Date:	1/7/2014	SeqNo:	459286	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.95	0.096	0.9606	0	98.8	58.5	163	1.63	20	
Benzene	0.91	0.048	0.9606	0	95.1	67.4	135	4.98	20	
Toluene	0.93	0.048	0.9606	0.009540	95.7	72.6	135	5.03	20	
Ethylbenzene	0.98	0.048	0.9606	0.007929	101	69.4	143	6.45	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1401103

09-Jan-14

Client: Blagg Engineering

Project: Gutierrez GC B 1E

Sample ID	1401103-001AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	151' N82E@6'	Batch ID:	11087	RunNo:	15923					
Prep Date:	1/6/2014	Analysis Date:	1/7/2014	SeqNo:	459286	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	2.9	0.096	2.882	0.01674	99.1	70.8	144	5.41	20	
Surr: 4-Bromofluorobenzene	1.0		0.9606		104	80	120	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: 1401103

RcptNo: 1

Received by/date:	<i>[Signature]</i>	<i>alacis</i>
Logged By:	Lindsay Mangin	1/6/2014 10:00:00 AM
Completed By:	Lindsay Mangin	1/6/2014 10:07:40 AM
Reviewed By:	<i>IO</i>	<i>01/06/14</i>

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? Courier

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for Indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes No
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes No

of preserved bottles checked for pH: _____
(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

17. Additional remarks:

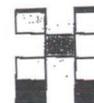
18. Cooler Information

Cooler No.	Temp. °C	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	2.5	Good	Yes			

Engineering, Inc.

Standard Rush

1/6/2014



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

BP America

Project Name
Gutierrez GC B 1E

Mailing Address: P.O. Box 87
Bloomfield, NM 87413

Project #:

Phone #: (505)320-1183

Project Manager:
Jeff Blagg

email or Fax#: _____
QA/QC Package:
 Standard Level 4 (Full Validation)

Sampler: Jeff Blagg

Other _____
 EDD (Type) _____

On Ice: Yes No

Sample Temperature: 2.5

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride
01/03/2014	8:50	Soil	151' N82E @ 6'	4oz x 1	cool	1401103 -001	x	x										x
01/03/2014	9:04	Soil	156' N68E @ 6'	4oz x 1	cool	-002	x	x										x
01/03/2014	9:15	Soil	160' N58E @ 6'	4oz x 1	cool	-003	x	x										x
01/03/2014	9:20	Soil	124' N50E @ 6'	4oz x 1	cool	-004	x	x										x
01/03/2014	9:30	Soil	89' S73E @ 6'	4oz x 1	cool	-005	x	x										x

Date: 1/6/2014 Time: 0610

Relinquished by:

Received by:

Date: 01/06/14 Time: 1000

Remarks: Bill Blagg

Date: _____ Time: _____

Relinquished by: _____

Received by: _____

Date: _____ Time: _____

BP Contact: Jeff Peace

Analytical Report

Lab Order 1401321

Date Reported: 1/13/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 145' S69E @ 7'

Project: Guitierrez GC B 1E

Collection Date: 1/8/2014 1:45:00 PM

Lab ID: 1401321-001

Matrix: SOIL

Received Date: 1/9/2014 10:26:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/10/2014 2:43:28 PM	11148
Surr: DNOP	104	66-131		%REC	1	1/10/2014 2:43:28 PM	11148
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	1/10/2014 3:36:36 PM	11153
Surr: BFB	102	74.5-129		%REC	1	1/10/2014 3:36:36 PM	11153
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	1/10/2014 3:36:36 PM	11153
Toluene	ND	0.046		mg/Kg	1	1/10/2014 3:36:36 PM	11153
Ethylbenzene	ND	0.046		mg/Kg	1	1/10/2014 3:36:36 PM	11153
Xylenes, Total	ND	0.093		mg/Kg	1	1/10/2014 3:36:36 PM	11153
Surr: 4-Bromofluorobenzene	115	80-120		%REC	1	1/10/2014 3:36:36 PM	11153
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	1/10/2014 1:41:22 PM	11167

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Analytical Report

Lab Order 1401321

Date Reported: 1/13/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 163' S73E @ 7'

Project: Guitierrez GC B 1E

Collection Date: 1/8/2014 1:49:00 PM

Lab ID: 1401321-002

Matrix: SOIL

Received Date: 1/9/2014 10:26:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/10/2014 3:05:29 PM	11148
Surr: DNOP	113	66-131		%REC	1	1/10/2014 3:05:29 PM	11148
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	1/10/2014 4:05:06 PM	11153
Surr: BFB	101	74.5-129		%REC	1	1/10/2014 4:05:06 PM	11153
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	1/10/2014 4:05:06 PM	11153
Toluene	ND	0.046		mg/Kg	1	1/10/2014 4:05:06 PM	11153
Ethylbenzene	ND	0.046		mg/Kg	1	1/10/2014 4:05:06 PM	11153
Xylenes, Total	ND	0.092		mg/Kg	1	1/10/2014 4:05:06 PM	11153
Surr: 4-Bromofluorobenzene	113	80-120		%REC	1	1/10/2014 4:05:06 PM	11153
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	1/10/2014 2:18:36 PM	11167

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 154' S83E @ 7'

Project: Guitierrez GC B 1E

Collection Date: 1/8/2014 1:54:00 PM

Lab ID: 1401321-003

Matrix: SOIL

Received Date: 1/9/2014 10:26:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/10/2014 3:27:43 PM	11148
Surr: DNOP	119	66-131		%REC	1	1/10/2014 3:27:43 PM	11148
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	1/10/2014 4:33:39 PM	11153
Surr: BFB	104	74.5-129		%REC	1	1/10/2014 4:33:39 PM	11153
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	1/10/2014 4:33:39 PM	11153
Toluene	ND	0.046		mg/Kg	1	1/10/2014 4:33:39 PM	11153
Ethylbenzene	ND	0.046		mg/Kg	1	1/10/2014 4:33:39 PM	11153
Xylenes, Total	ND	0.093		mg/Kg	1	1/10/2014 4:33:39 PM	11153
Surr: 4-Bromofluorobenzene	113	80-120		%REC	1	1/10/2014 4:33:39 PM	11153
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	1/10/2014 2:31:01 PM	11167

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 127' S76E @ 7'

Project: Guitierrez GC B 1E

Collection Date: 1/8/2014 1:59:00 PM

Lab ID: 1401321-004

Matrix: SOIL

Received Date: 1/9/2014 10:26:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/13/2014 10:13:42 AM	11148
Surr: DNOP	121	66-131		%REC	1	1/13/2014 10:13:42 AM	11148
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	6.5	4.8		mg/Kg	1	1/10/2014 5:30:50 PM	11153
Surr: BFB	128	74.5-129		%REC	1	1/10/2014 5:30:50 PM	11153
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	1/10/2014 5:30:50 PM	11153
Toluene	ND	0.048		mg/Kg	1	1/10/2014 5:30:50 PM	11153
Ethylbenzene	ND	0.048		mg/Kg	1	1/10/2014 5:30:50 PM	11153
Xylenes, Total	0.34	0.095		mg/Kg	1	1/10/2014 5:30:50 PM	11153
Surr: 4-Bromofluorobenzene	115	80-120		%REC	1	1/10/2014 5:30:50 PM	11153
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	1/10/2014 2:43:26 PM	11167

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 1401321
 13-Jan-14

Client: Blagg Engineering
Project: Guiterrez GC B 1E

Sample ID	MB-11167	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	11167	RunNo:	16026					
Prep Date:	1/10/2014	Analysis Date:	1/10/2014	SeqNo:	461735	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-11167	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	11167	RunNo:	16026					
Prep Date:	1/10/2014	Analysis Date:	1/10/2014	SeqNo:	461736	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.5	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 1401321
 13-Jan-14

Client: Blagg Engineering
Project: Guitierrez GC B IE

Sample ID	LCS-11148	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	11148	RunNo:	16001					
Prep Date:	1/9/2014	Analysis Date:	1/10/2014	SeqNo:	461419	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	109	60.8	145			
Surr: DNOP	5.5		5.000		110	66	131			

Sample ID	MB-11148	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	11148	RunNo:	16001					
Prep Date:	1/9/2014	Analysis Date:	1/10/2014	SeqNo:	461421	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	12		10.00		117	66	131			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1401321

13-Jan-14

Client: Blagg Engineering
Project: Guiterrez GC B 1E

Sample ID	MB-11153	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	11153	RunNo:	16013					
Prep Date:	1/9/2014	Analysis Date:	1/10/2014	SeqNo:	461459	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		100	74.5	129			

Sample ID	LCS-11153	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	11153	RunNo:	16013					
Prep Date:	1/9/2014	Analysis Date:	1/10/2014	SeqNo:	461466	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	5.0	25.00	0	119	74.5	126			
Surr: BFB	1100		1000		110	74.5	129			

Sample ID	MB-11153 MK	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R16013	RunNo:	16013					
Prep Date:		Analysis Date:	1/10/2014	SeqNo:	461486	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		100	74.5	129			

Sample ID	LCS-11153 MK	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R16013	RunNo:	16013					
Prep Date:		Analysis Date:	1/10/2014	SeqNo:	461487	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		110	74.5	129			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2 for VOA and TOC only. |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 1401321
 13-Jan-14

Client: Blagg Engineering
Project: Guitierrez GC B 1E

Sample ID	MB-11153 MK	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R16013	RunNo:	16013					
Prep Date:		Analysis Date:	1/10/2014	SeqNo:	461496	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Sample ID	LCS-11153 MK	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R16013	RunNo:	16013					
Prep Date:		Analysis Date:	1/10/2014	SeqNo:	461497	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.2		1.000		117	80	120			

Sample ID	MB-11153	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	11153	RunNo:	16013					
Prep Date:	1/9/2014	Analysis Date:	1/10/2014	SeqNo:	461507	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Sample ID	LCS-11153	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	11153	RunNo:	16013					
Prep Date:	1/9/2014	Analysis Date:	1/10/2014	SeqNo:	461508	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	103	80	120			
Toluene	0.97	0.050	1.000	0	97.4	80	120			
Ethylbenzene	1.0	0.050	1.000	0	105	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		117	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1401321**

RcptNo: **1**

Received by/date: *AT* 01/09/14

Logged By: **Anne Thorne** 1/9/2014 10:26:00 AM *Anne Thorne*

Completed By: **Anne Thorne** 1/9/2014 *Anne Thorne*

Reviewed By: *JD* 01/09/2014

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? Courier

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels? Yes No
(Note discrepancies on chain of custody)
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met? Yes No
(If no, notify customer for authorization.)

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: _____

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

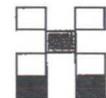
17. Additional remarks:

18. Cooler Information

Cooler No.	Temp. °C	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	2.4	Good	Yes			

Client: Blagg Engineering, Inc.
 BP America
 Mailing Address: P.O. Box 87
 Bloomfield, NM 87413
 Phone #: (505)320-1183
 email or Fax#:
 QA/QC Package:
 Standard Level 4 (Full Validation)
 Other _____
 EDD (Type) _____

Standard Rush 1/13/2014
 Project Name: Gutierrez GC B 1 E
 Project #:
 Project Manager: Jeff Blagg
 Sampler: Jeff Blagg
 On Ice: Yes No
 Sample Temperature: 2.4



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com
 4901 Hawkins NE - Albuquerque, NM 87109
 Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + MIBK (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride
01/08/2014	13:45	Soil	145' S69E @ 7'	4oz x 1	cool	1401321 001	x		x									x
01/08/2014	13:49	Soil	163' S73E @ 7'	4oz x 1	cool	002	x		x									x
01/08/2014	13:54	Soil	154' S83E @ 7'	4oz x 1	cool	003	x		x									x
01/08/2014	13:59	Soil	127' S76E @ 7'	4oz x 1	cool	004	x		x									x

Date: 1/9/2014 Time: 0615 Relinquished by: Jeff Blagg
 Received by: [Signature] Date: 1/9/14 Time: 1026

Remarks: Bill Blagg

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Analytical Report

Lab Order 1401395

Date Reported: 1/15/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 15' S13E@6'

Project: Gutierrez GC B 1E

Collection Date: 1/9/2014 1:05:00 PM

Lab ID: 1401395-001

Matrix: SOIL

Received Date: 1/10/2014 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/14/2014 11:05:06 AM	11171
Surr: DNOP	99.8	66-131		%REC	1	1/14/2014 11:05:06 AM	11171
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/13/2014 12:34:43 PM	11172
Surr: BFB	103	74.5-129		%REC	1	1/13/2014 12:34:43 PM	11172
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	1/13/2014 12:34:43 PM	11172
Toluene	ND	0.047		mg/Kg	1	1/13/2014 12:34:43 PM	11172
Ethylbenzene	ND	0.047		mg/Kg	1	1/13/2014 12:34:43 PM	11172
Xylenes, Total	ND	0.094		mg/Kg	1	1/13/2014 12:34:43 PM	11172
Surr: 4-Bromofluorobenzene	112	80-120		%REC	1	1/13/2014 12:34:43 PM	11172
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	1/13/2014 3:09:58 PM	11194

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Analytical Report

Lab Order 1401395

Date Reported: 1/15/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 90' N85E @6'

Project: Gutierrez GC B 1E

Collection Date: 1/9/2014 1:12:00 PM

Lab ID: 1401395-002

Matrix: SOIL

Received Date: 1/10/2014 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/14/2014 2:19:34 PM	11171
Surr: DNOP	95.6	66-131		%REC	1	1/14/2014 2:19:34 PM	11171
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/13/2014 2:00:38 PM	11172
Surr: BFB	104	74.5-129		%REC	1	1/13/2014 2:00:38 PM	11172
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	1/13/2014 2:00:38 PM	11172
Toluene	ND	0.049		mg/Kg	1	1/13/2014 2:00:38 PM	11172
Ethylbenzene	ND	0.049		mg/Kg	1	1/13/2014 2:00:38 PM	11172
Xylenes, Total	ND	0.098		mg/Kg	1	1/13/2014 2:00:38 PM	11172
Surr: 4-Bromofluorobenzene	113	80-120		%REC	1	1/13/2014 2:00:38 PM	11172
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	1/13/2014 3:22:22 PM	11194

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 100' N65E @6'

Project: Gutierrez GC B 1E

Collection Date: 1/9/2014 1:30:00 PM

Lab ID: 1401395-003

Matrix: SOIL

Received Date: 1/10/2014 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/14/2014 2:41:47 PM	11171
Surr: DNOP	105	66-131		%REC	1	1/14/2014 2:41:47 PM	11171
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/13/2014 3:26:30 PM	11172
Surr: BFB	105	74.5-129		%REC	1	1/13/2014 3:26:30 PM	11172
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	1/13/2014 3:26:30 PM	11172
Toluene	ND	0.049		mg/Kg	1	1/13/2014 3:26:30 PM	11172
Ethylbenzene	ND	0.049		mg/Kg	1	1/13/2014 3:26:30 PM	11172
Xylenes, Total	ND	0.098		mg/Kg	1	1/13/2014 3:26:30 PM	11172
Surr: 4-Bromofluorobenzene	112	80-120		%REC	1	1/13/2014 3:26:30 PM	11172
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	ND	30		mg/Kg	20	1/13/2014 3:34:46 PM	11194

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1401395

15-Jan-14

Client: Blagg Engineering
Project: Gutierrez GC B 1E

Sample ID	MB-11194	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	11194	RunNo:	16048					
Prep Date:	1/13/2014	Analysis Date:	1/13/2014	SeqNo:	462291	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-11194	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	11194	RunNo:	16048					
Prep Date:	1/13/2014	Analysis Date:	1/13/2014	SeqNo:	462292	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.3	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1401395

15-Jan-14

Client: Blagg Engineering
Project: Gutierrez GC B 1E

Sample ID	MB-11171	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	11171	RunNo:	16046					
Prep Date:	1/10/2014	Analysis Date:	1/14/2014	SeqNo:	462286	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.8		10.00		98.3	66	131			

Sample ID	LCS-11171	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	11171	RunNo:	16046					
Prep Date:	1/10/2014	Analysis Date:	1/14/2014	SeqNo:	462287	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	102	60.8	145			
Surr: DNOP	5.3		5.000		106	66	131			

Sample ID	1401395-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	15' S13E@6'	Batch ID:	11171	RunNo:	16046					
Prep Date:	1/10/2014	Analysis Date:	1/14/2014	SeqNo:	462362	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	10	50.35	0	110	47.4	148			
Surr: DNOP	5.4		5.035		108	66	131			

Sample ID	MB-11208	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	11208	RunNo:	16046					
Prep Date:	1/14/2014	Analysis Date:	1/14/2014	SeqNo:	462437	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.7		10.00		97.2	66	131			

Sample ID	LCS-11208	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	11208	RunNo:	16046					
Prep Date:	1/14/2014	Analysis Date:	1/14/2014	SeqNo:	462438	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.1		5.000		103	66	131			

Sample ID	1401395-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	15' S13E@6'	Batch ID:	11171	RunNo:	16046					
Prep Date:	1/10/2014	Analysis Date:	1/14/2014	SeqNo:	462536	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.35	0	99.7	47.4	148	9.55	22.7	
Surr: DNOP	4.9		5.035		98.0	66	131	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 1401395
 15-Jan-14

Client: Blagg Engineering
Project: Gutierrez GC B 1E

Sample ID MB-11172	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 11172		RunNo: 16045							
Prep Date: 1/10/2014	Analysis Date: 1/13/2014		SeqNo: 462231		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		101	74.5	129			

Sample ID LCS-11172	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 11172		RunNo: 16045							
Prep Date: 1/10/2014	Analysis Date: 1/13/2014		SeqNo: 462232		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	5.0	25.00	0	129	74.5	126			S
Surr: BFB	1100		1000		109	74.5	129			

Sample ID 1401395-002AMS	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: 90' N85E @6'	Batch ID: 11172		RunNo: 16045							
Prep Date: 1/10/2014	Analysis Date: 1/13/2014		SeqNo: 462235		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	33	4.9	24.49	0	133	69.5	145			
Surr: BFB	1100		979.4		114	74.5	129			

Sample ID 1401395-002AMSD	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: 90' N85E @6'	Batch ID: 11172		RunNo: 16045							
Prep Date: 1/10/2014	Analysis Date: 1/13/2014		SeqNo: 462236		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	4.9	24.56	0	120	69.5	145	10.5	20	
Surr: BFB	1100		982.3		114	74.5	129	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1401395

15-Jan-14

Client: Blagg Engineering

Project: Gutierrez GC B 1E

Sample ID	MB-11172	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	11172	RunNo:	16045					
Prep Date:	1/10/2014	Analysis Date:	1/13/2014	SeqNo:	462249	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		112	80	120			

Sample ID	LCS-11172	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	11172	RunNo:	16045					
Prep Date:	1/10/2014	Analysis Date:	1/13/2014	SeqNo:	462250	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.050	1.000	0	96.8	80	120			
Toluene	0.89	0.050	1.000	0	89.1	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.1	80	120			
Xylenes, Total	2.9	0.10	3.000	0	98.1	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		117	80	120			

Sample ID	1401395-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	15' S13E@6'	Batch ID:	11172	RunNo:	16045					
Prep Date:	1/10/2014	Analysis Date:	1/13/2014	SeqNo:	462252	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.047	0.9311	0	89.1	67.4	135			
Toluene	0.81	0.047	0.9311	0.006907	86.7	72.6	135			
Ethylbenzene	0.95	0.047	0.9311	0	102	69.4	143			
Xylenes, Total	2.8	0.093	2.793	0.02758	101	70.8	144			
Surr: 4-Bromofluorobenzene	1.1		0.9311		116	80	120			

Sample ID	1401395-001AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	15' S13E@6'	Batch ID:	11172	RunNo:	16045					
Prep Date:	1/10/2014	Analysis Date:	1/13/2014	SeqNo:	462253	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.046	0.9294	0	93.1	67.4	135	4.19	20	
Toluene	0.84	0.046	0.9294	0.006907	89.6	72.6	135	3.04	20	
Ethylbenzene	0.96	0.046	0.9294	0	103	69.4	143	0.660	20	
Xylenes, Total	2.9	0.093	2.788	0.02758	102	70.8	144	0.296	20	
Surr: 4-Bromofluorobenzene	1.1		0.9294		118	80	120	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit



Hall Environmental Analysis Laboratory
 4901 Hawkins NE
 Albuquerque, NM 87105
 TEL: 505-345-3975 FAX: 505-345-4107
 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: 1401395

RcptNo: 1

Received by/date: [Signature] 01/10/14

Logged By: **Lindsay Mangin** 1/10/2014 10:00:00 AM [Signature]

Completed By: **Lindsay Mangin** 1/10/2014 10:22:44 AM [Signature]

Reviewed By: [Signature] 1/10/14

Chain of Custody

1. Custody seals intact on sample bottles? Yes No Not Present
2. Is Chain of Custody complete? Yes No Not Present
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes No NA
5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
6. Sample(s) in proper container(s)? Yes No
7. Sufficient sample volume for indicated test(s)? Yes No
8. Are samples (except VOA and ONG) properly preserved? Yes No
9. Was preservative added to bottles? Yes No NA
10. VOA vials have zero headspace? Yes No No VOA Vials
11. Were any sample containers received broken? Yes No
12. Does paperwork match bottle labels? Yes No
(Note discrepancies on chain of custody)
13. Are matrices correctly identified on Chain of Custody? Yes No
14. Is it clear what analyses were requested? Yes No
15. Were all holding times able to be met? Yes No
(If no, notify customer for authorization.)

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No.	Temp °C	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	2.1	Good	Yes			

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Client Sample ID: MW # 1
 Project: Gutierrez GC B # 1E Collection Date: 4/24/2014 11:05:00 AM
 Lab ID: 1404B20-001 Matrix: AQUEOUS Received Date: 4/26/2014 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	2.0		µg/L	2	4/30/2014 2:24:19 AM	R18292
Toluene	ND	2.0		µg/L	2	4/30/2014 2:24:19 AM	R18292
Ethylbenzene	ND	2.0		µg/L	2	4/30/2014 2:24:19 AM	R18292
Xylenes, Total	ND	4.0		µg/L	2	4/30/2014 2:24:19 AM	R18292
Surr: 4-Bromofluorobenzene	98.1	82.9-139		%REC	2	4/30/2014 2:24:19 AM	R18292
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.70	0.50		mg/L	5	4/28/2014 12:00:11 PM	R18263
Chloride	75	10		mg/L	20	4/28/2014 12:37:24 PM	R18263
Sulfate	4400	100		mg/L	200	4/29/2014 7:26:02 PM	R18304
Nitrate+Nitrite as N	ND	1.0		mg/L	5	4/28/2014 10:45:30 PM	R18263
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Iron	3.3	0.10	*	mg/L	5	4/28/2014 4:20:43 PM	R18249
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	6980	200	*	mg/L	1	4/30/2014 2:14:00 PM	12927

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: MW # 2

Project: Gutierrez GC B # 1E

Collection Date: 4/24/2014 12:00:00 PM

Lab ID: 1404B20-002

Matrix: AQUEOUS

Received Date: 4/26/2014 11:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	1.0		µg/L	1	4/30/2014 2:54:25 AM	R18292
Toluene	ND	1.0		µg/L	1	4/30/2014 2:54:25 AM	R18292
Ethylbenzene	4.1	1.0		µg/L	1	4/30/2014 2:54:25 AM	R18292
Xylenes, Total	23	2.0		µg/L	1	4/30/2014 2:54:25 AM	R18292
Surr: 4-Bromofluorobenzene	114	82.9-139		%REC	1	4/30/2014 2:54:25 AM	R18292
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	0.62	0.50		mg/L	5	4/28/2014 12:49:49 PM	R18263
Chloride	61	10		mg/L	20	4/28/2014 1:02:13 PM	R18263
Sulfate	4000	50		mg/L	100	4/29/2014 7:38:27 PM	R18304
Nitrate+Nitrite as N	ND	1.0		mg/L	5	4/28/2014 10:57:54 PM	R18263
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Iron	2.3	0.10	*	mg/L	5	4/28/2014 4:48:54 PM	R18249
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	6210	40.0	*	mg/L	1	4/30/2014 2:14:00 PM	12927

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 1404B20

06-May-14

Client: Blagg Engineering
Project: Gutierrez GC B # 1E

Sample ID MB	SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: PBW	Batch ID: R18249		RunNo: 18249							
Prep Date:	Analysis Date: 4/28/2014		SeqNo: 527150		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals							
Client ID: LCSW	Batch ID: R18249		RunNo: 18249							
Prep Date:	Analysis Date: 4/28/2014		SeqNo: 527151		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.54	0.020	0.5000	0	108	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1404B20

06-May-14

Client: Blagg Engineering
Project: Gutierrez GC B # 1E

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R18263		RunNo: 18263							
Prep Date:	Analysis Date: 4/28/2014		SeqNo: 527584		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R18263		RunNo: 18263							
Prep Date:	Analysis Date: 4/28/2014		SeqNo: 527585		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.46	0.10	0.5000	0	91.5	90	110			
Chloride	4.6	0.50	5.000	0	91.8	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	96.0	90	110			

Sample ID 1404B20-001BMS	SampType: MS		TestCode: EPA Method 300.0: Anions							
Client ID: MW # 1	Batch ID: R18263		RunNo: 18263							
Prep Date:	Analysis Date: 4/28/2014		SeqNo: 527587		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.9	0.50	2.500	0.7000	86.2	76.4	109			

Sample ID 1404B20-001BMSD	SampType: MSD		TestCode: EPA Method 300.0: Anions							
Client ID: MW # 1	Batch ID: R18263		RunNo: 18263							
Prep Date:	Analysis Date: 4/28/2014		SeqNo: 527588		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.9	0.50	2.500	0.7000	88.0	76.4	109	1.56	20	

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R18304		RunNo: 18304							
Prep Date:	Analysis Date: 4/29/2014		SeqNo: 528501		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R18304		RunNo: 18304							
Prep Date:	Analysis Date: 4/29/2014		SeqNo: 528502		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	9.5	0.50	10.00	0	94.8	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 1404B20
 06-May-14

Client: Blagg Engineering
Project: Gutierrez GC B # 1E

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID:	R18292	RunNo:	18292					
Prep Date:		Analysis Date:	4/29/2014	SeqNo:	528218	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	20		20.00		102	82.9	139			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSW	Batch ID:	R18292	RunNo:	18292					
Prep Date:		Analysis Date:	4/29/2014	SeqNo:	528219	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	107	80	120			
Toluene	21	1.0	20.00	0	107	80	120			
Ethylbenzene	21	1.0	20.00	0	106	80	120			
Xylenes, Total	65	2.0	60.00	0	108	80	120			
Surr: 4-Bromofluorobenzene	21		20.00		104	82.9	139			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1404B20

06-May-14

Client: Blagg Engineering
Project: Gutierrez GC B # 1E

Sample ID	MB-12927	SampType:	MBLK	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	PBW	Batch ID:	12927	RunNo:	18308					
Prep Date:	4/29/2014	Analysis Date:	4/30/2014	SeqNo:	528658	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	LCS-12927	SampType:	LCS	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	LCSW	Batch ID:	12927	RunNo:	18308					
Prep Date:	4/29/2014	Analysis Date:	4/30/2014	SeqNo:	528659	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1020	20.0	1000	0	102	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Sample Log-In Check List

Client Name: **BLAGG** Work Order Number: **1404B20** RcptNo: **1**

Received by/date: **AF** **04/26/14**

Logged By: **Lindsay Mangin** **4/26/2014 11:00:00 AM** *Lindsay Mangin*

Completed By: **Lindsay Mangin** **4/28/2014 8:08:45 AM** *Lindsay Mangin*

Reviewed By: **IO** **04/28/14**

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? Courier

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes No
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met? (If no, notify customer for authorization.) Yes No

of preserved bottles checked for pH: 12 (2 or >12 unless noted)

Adjusted?

Checked by: *[Signature]*

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____

By Whom: _____ Via: eMail Phone Fax In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.7	Good	Yes			

Chain-of-Custody Record

Client: **BLAGG ENGR. / BP AMERICA**

Mailing Address: **P.O. BOX 87**
BLOOMFIELD, NM 87413

Phone #: **(505) 632-1199**

email or Fax#:

QA/QC Package:
 Standard Level 4 (Full Validation)

Accreditation:
 NELAP Other _____
 EDD (Type) _____

Project Name: **GUTIERREZ GC B # 1E**

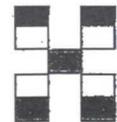
Project #:

Project Manager: **NELSON VELEZ**

Sampler: **NELSON VELEZ**

On Ice: Yes No

Sample Temperature: **2.7**



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com
 4901 Hawkins NE - Albuquerque, NM 87109
 Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMBE (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₂ , PO ₄ , SO ₄)	Total Dissolved Solids	Iron, Ferrous (filtered)	Nitrate N / Nitrite N	Grab sample	5 pt. composite sample
4/24/14	1105	WATER	MW # 1	40 ml VOA - 2	HCl & Cool	-001	✓												✓
4/24/14	1105	WATER	MW # 1	500 ml - 1	Cool	-001								✓	✓				✓
4/24/14	1105	WATER	MW # 1	125 ml - 1	HNO ₃ & Cool	-001										✓			✓
4/24/14	1105	WATER	MW # 1	125 ml - 1	H ₂ SO ₄ & Cool	-001											✓		✓
4/24/14	1200	WATER	MW # 2	40 ml VOA - 2	HCl & Cool	-002	✓												✓
4/24/14	1200	WATER	MW # 2	500 ml - 1	Cool	-002								✓	✓				✓
4/24/14	1200	WATER	MW # 2	125 ml - 1	HNO ₃ & Cool	-002										✓			✓
4/24/14	1200	WATER	MW # 2	125 ml - 1	H ₂ SO ₄ & Cool	-002											✓		✓

Date: **4/25/14** Time: **9:20** Relinquished by: *[Signature]*

Date: **4/25/14** Time: **11:00** Received by: *[Signature]*

Remarks:

Send invoice to:
Blagg Engineering, Inc.
P.O. Box 87
Bloomfield, NM 87413

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.