

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

Form C-141  
Revised August 8, 2011

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: Steve Moskal
Address: 200 Energy Court, Farmington, NM 87401	Telephone No.: 505-326-9497
Facility Name: Atlantic B LS 003C	Facility Type: Natural gas well

Surface Owner: Federal	Mineral Owner: Federal	API No. 3004532178
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**LOCATION OF RELEASE**

Unit Letter O	Section 04	Township 30N	Range 10W	Feet from the 720	North/South Line South	Feet from the 2,445	East/West Line East	County: San Juan
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Latitude 36.835208° Longitude -107.887504°

**NATURE OF RELEASE**

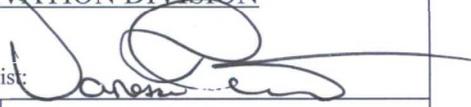
Type of Release: Hydrocarbon	Volume of Release: unknown	Volume Recovered: N/A
Source of Release: Former workover pit	Date and Hour of Occurrence: unknown	Date and Hour of Discovery: 6/28/17 <b>OIL CONS. DIV DIST. 3</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	<b>AUG 09 2017</b>
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 final reclamation of the plugged and abandoned production well site, a lined pit was encountered with a bulldozer. The contents of the pit were excavated and transported offsite for landfarm treatment.

Describe Area Affected and Cleanup Action Taken.\* The final excavation extents measured approximately 105'x38'x8' in depth. The impacted soil and liner were removed from the location. The excavation was sampled for closure with all results below the spill and release guidelines. No further action is required. Attached is a field report with laboratory results.

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: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Steve Moskal	Approved by Environmental Specialist: 	
Title: Field Environmental Coordinator	Approval Date: <b>8/10/2017</b>	Expiration Date:
E-mail Address: steven.moskal@bp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: August 7, 2017	Phone: 505-326-9497	

\* Attach Additional Sheets If Necessary

**NVF1717839189**

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

API #: **3004532178**  
TANK ID (if applicable): **NA**

**FIELD REPORT:**

(circle one):  BGT CONFIRMATION /  RELEASE INVESTIGATION /  OTHER:

PAGE #: **1** of **1**

**SITE INFORMATION:** SITE NAME: **ATLANTIC B LS # 3C**  
QUAD/UNIT: **O** SEC: **4** TWP: **30N** RNG: **10W** PM: **NM** CNTY: **SJ** ST: **NM**  
1/4 - 1/4 FOOTAGE: **720'S / 2,445'E** **SW/SE** LEASE TYPE:  FEDERAL /  STATE /  FEE /  INDIAN  
LEASE #: **SF080917** PROD. FORMATION: **PC/MV** CONTRACTOR: **KELLEY O.F.S. BP - S. BEEBE**

DATE STARTED: **06/28/17**  
DATE FINISHED: \_\_\_\_\_  
ENVIRONMENTAL SPECIALIST(S): **NJV**

**REFERENCE POINT:** WELL HEAD (W.H.) GPS COORD.: **36.835415 X 107.887608** GL ELEV.: **6,448'**

1) <b>Excavation center</b>	GPS COORD.: <b>36.835208 X 107.887504</b>	DISTANCE/BEARING FROM W.H.: <b>81', S22E</b>
2) _____	GPS COORD.: _____	DISTANCE/BEARING FROM W.H.: _____
3) _____	GPS COORD.: _____	DISTANCE/BEARING FROM W.H.: _____
4) _____	GPS COORD.: _____	DISTANCE/BEARING FROM W.H.: _____

**SAMPLING DATA:** CHAIN OF CUSTODY RECORD(S) # OR LAB USED: **HALL**

SAMPLE ID:	SAMPLE DATE:	SAMPLE TIME:	LAB ANALYSIS:	OVM READING (ppm)
1) <b>5PC - NSW @ 4'</b>	<b>06/28/17</b>	<b>0930</b>	<b>8015B/8021B/300.0 (CI)</b>	<b>0.0</b>
2) <b>5PC - WSW @ 4' - 6'</b>	<b>06/28/17</b>	<b>0940</b>	<b>8015B/8021B/300.0 (CI)</b>	<b>6.8</b>
3) <b>5PC - SSW @ 4' - 6'</b>	<b>06/28/17</b>	<b>0950</b>	<b>8015B/8021B/300.0 (CI)</b>	<b>0.0</b>
4) <b>BASE CENTER @ 7' - 8'</b>	<b>06/28/17</b>	<b>1000</b>	<b>8015B/8021B/300.0 (CI)</b>	<b>0.0</b>
5) <b>BASE WEST @ 7' - 8'</b>	<b>06/28/17</b>	<b>1010</b>	<b>8015B/8021B/300.0 (CI)</b>	<b>0.0</b>

**SOIL DESCRIPTION:** SOIL TYPE:  SAND /  SILTY SAND /  SILT /  SILTY CLAY /  CLAY /  GRAVEL /  OTHER  **BEDROCK (SANDSTONE)**

SOIL COLOR: **DARK YELLOWISH BROWN**

PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC  
COHESION (ALL OTHERS):  NON COHESIVE /  SLIGHTLY COHESIVE /  COHESIVE /  HIGHLY COHESIVE  
DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARD  
CONSISTENCY (NON COHESIVE SOILS):  LOOSE /  FIRM /  DENSE /  VERY DENSE  
HC ODOR DETECTED: YES  NO  EXPLANATION - \_\_\_\_\_  
MOISTURE:  DRY /  SLIGHTLY MOIST /  MOIST /  WET /  SATURATED /  SUPER SATURATED  
SAMPLE TYPE: GRAB /  COMPOSITE - # OF PTS. **5**  
ANY AREAS DISPLAYING WETNESS: YES  NO  EXPLANATION - \_\_\_\_\_  
DISCOLORATION/STAINING OBSERVED: YES  NO  EXPLANATION - \_\_\_\_\_

**SITE OBSERVATIONS:** LOST INTEGRITY OF EQUIPMENT: YES / NO EXPLANATION - **NA**

APPARENT EVIDENCE OF A RELEASE OBSERVED AND/OR OCCURRED:  YES /  NO EXPLANATION: **PREVIOUSLY DOCUMENTED, C-141 INITIAL REPORT SUBMITTED.**

EQUIPMENT SET OVER RECLAIMED AREA: YES  NO  EXPLANATION - \_\_\_\_\_

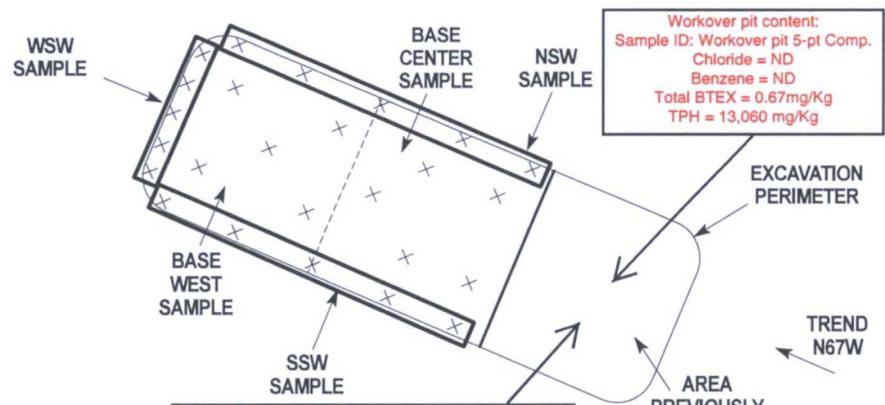
OTHER: **GAS WELL RECENTLY PLUGGED & ABANDONED (P&A). NMOCD OR BLM NOT PRESENT TO WITNESS CLOSURE SAMPLING.**

EXCAVATION DIMENSION ESTIMATION: **105** ft. X **38** ft. X **8** ft. EXCAVATION ESTIMATION (Cubic Yards): **1,300 +/-**

DEPTH TO GROUNDWATER: **>100'** NEAREST WATER SOURCE: **>1,000'** NEAREST SURFACE WATER: **<200'** NMOCD TPH CLOSURE STD: **100** ppm

**SITE SKETCH**

BGT Located: off /  on site PLOT PLAN circle:  attached



OVM CALIB. READ. = **100.0** ppm RF=0.52  
OVM CALIB. GAS = **100** ppm  
TIME: **8:45** am/pm DATE: **06/28/17**

**MISCELL. NOTES**

WO: \_\_\_\_\_  
REF #: \_\_\_\_\_  
VID: \_\_\_\_\_  
PJ #: \_\_\_\_\_  
Permit date(s): **NA**  
OCD Appr. date(s): **NA**  
Tank ID: OVM = Organic Vapor Meter ppm = parts per million  
BGT Sidewalls Visible: ~~Y / N~~  
BGT Sidewalls Visible: ~~Y / N~~  
BGT Sidewalls Visible: ~~Y / N~~  
Magnetic declination: **10° E**

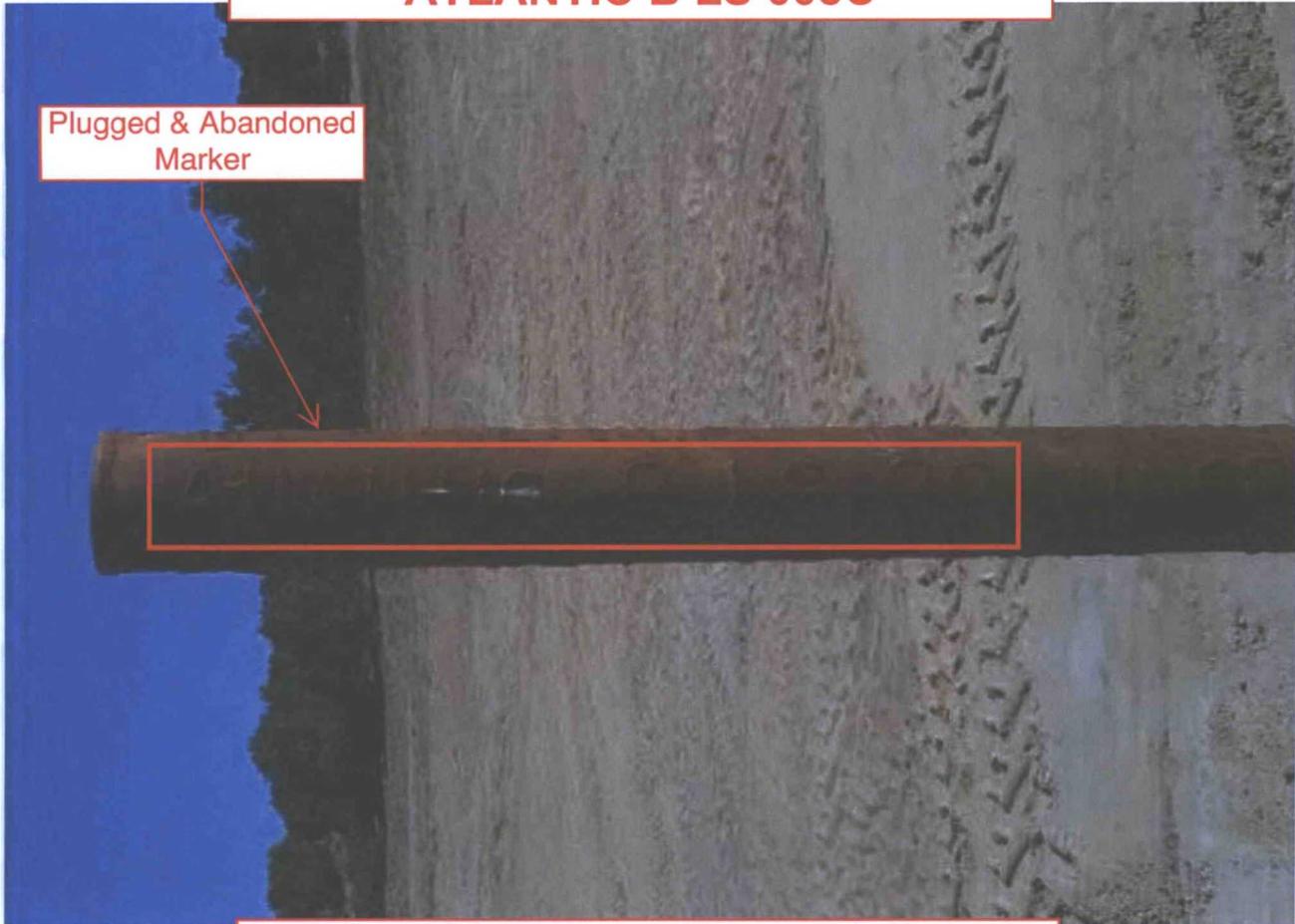
**X - S.P.D.**

NOTES: BGT = BELOW-GRADE TANK; E.D. = EXCAVATION DEPRESSION; B.G. = BELOW GRADE; B = BELOW; T.H. = TEST HOLE; ~ = APPROX.; W.H. = WELL HEAD; T.B. = TANK BOTTOM; PBGTL = PREVIOUS BELOW-GRADE TANK LOCATION; SPD = SAMPLE POINT DESIGNATION; R.W. = RETAINING WALL; NA - NOT APPLICABLE OR NOT AVAILABLE; SW - SINGLE WALL; DW - DOUBLE WALL; SB - SINGLE BOTTOM; DB - DOUBLE BOTTOM.

NOTES: **GOOGLE EARTH IMAGERY DATE: 3/15/2015.** ONSITE: **06/23/17, 06/28/17.**

# ATLANTIC B LS 003C

Plugged & Abandoned  
Marker

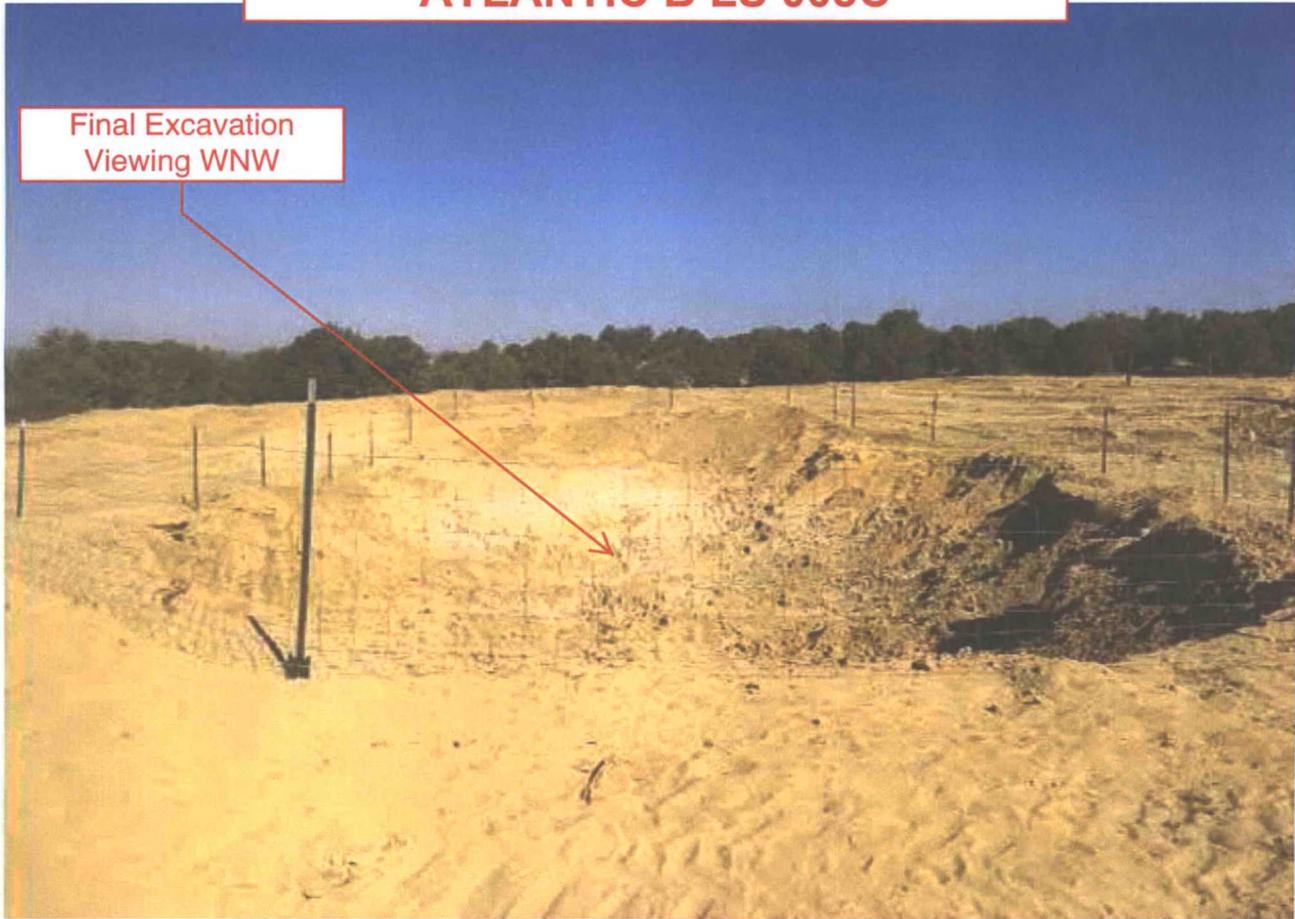


## Discovery of workover pit liner



**ATLANTIC B LS 003C**

Final Excavation  
Viewing WNW



**Area sampled on 06/28/2017**



Analytical Report

Lab Order 1706B91

Date Reported: 6/23/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: Workover Pit 5-pt Comp

Project: ATLANTIC B LS 3C

Collection Date: 6/21/2017 2:25:00 PM

Lab ID: 1706B91-001

Matrix: SOIL

Received Date: 6/22/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	6/22/2017 10:56:15 AM	32436
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	8400	95		mg/Kg	10	6/22/2017 12:09:19 PM	32430
Motor Oil Range Organics (MRO)	4500	480		mg/Kg	10	6/22/2017 12:09:19 PM	32430
Surr: DNOP	0	70-130	S	%Rec	10	6/22/2017 12:09:19 PM	32430
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	160	18		mg/Kg	5	6/22/2017 10:22:44 AM	32413
Surr: BFB	490	54-150	S	%Rec	5	6/22/2017 10:22:44 AM	32413
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.090		mg/Kg	5	6/22/2017 10:22:44 AM	32413
Toluene	ND	0.18		mg/Kg	5	6/22/2017 10:22:44 AM	32413
Ethylbenzene	ND	0.18		mg/Kg	5	6/22/2017 10:22:44 AM	32413
Xylenes, Total	0.67	0.36		mg/Kg	5	6/22/2017 10:22:44 AM	32413
Surr: 4-Bromofluorobenzene	130	66.6-132		%Rec	5	6/22/2017 10:22:44 AM	32413

Workover Pit Content

Total TPH = 13,060 mg/Kg

Closure standard = 100 mg/Kg according to the Spill & Release Guidelines

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	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	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

**Analytical Report**

Lab Order 1706D38

Date Reported: 6/28/2017

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Blagg Engineering

**Client Sample ID:** Workover Pit NE Sidewall 5-Pt

**Project:** Atlantic B LS 3C

**Collection Date:** 6/23/2017 2:22:00 PM

**Lab ID:** 1706D38-002

**Matrix:** MEOH (SOIL)

**Received Date:** 6/24/2017 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	6/26/2017 12:16:08 PM	32485
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/26/2017 12:26:20 PM	32473
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/26/2017 12:26:20 PM	32473
Surr: DNOP	90.2	70-130		%Rec	1	6/26/2017 12:26:20 PM	32473
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	6/26/2017 11:00:04 AM	32458
Surr: BFB	91.7	54-150		%Rec	1	6/26/2017 11:00:04 AM	32458
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	6/26/2017 11:00:04 AM	32458
Toluene	ND	0.036		mg/Kg	1	6/26/2017 11:00:04 AM	32458
Ethylbenzene	ND	0.036		mg/Kg	1	6/26/2017 11:00:04 AM	32458
Xylenes, Total	ND	0.071		mg/Kg	1	6/26/2017 11:00:04 AM	32458
Surr: 4-Bromofluorobenzene	119	66.6-132		%Rec	1	6/26/2017 11:00:04 AM	32458

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	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	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1706D38

Date Reported: 6/28/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: Workover Pit NE Base 5-Pt

Project: Atlantic B LS 3C

Collection Date: 6/23/2017 2:15:00 PM

Lab ID: 1706D38-001

Matrix: MEOH (SOIL)

Received Date: 6/24/2017 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	6/26/2017 12:03:44 PM	32485
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/26/2017 11:58:21 AM	32473
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/26/2017 11:58:21 AM	32473
Surr: DNOP	89.7	70-130		%Rec	1	6/26/2017 11:58:21 AM	32473
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	6/26/2017 10:36:06 AM	32458
Surr: BFB	90.3	54-150		%Rec	1	6/26/2017 10:36:06 AM	32458
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	6/26/2017 10:36:06 AM	32458
Toluene	ND	0.037		mg/Kg	1	6/26/2017 10:36:06 AM	32458
Ethylbenzene	ND	0.037		mg/Kg	1	6/26/2017 10:36:06 AM	32458
Xylenes, Total	ND	0.073		mg/Kg	1	6/26/2017 10:36:06 AM	32458
Surr: 4-Bromofluorobenzene	118	66.6-132		%Rec	1	6/26/2017 10:36:06 AM	32458

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1706F29

Date Reported: 6/30/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 5 PC- NSW @ 4'

Project: ATLANTIC B LS 3C

Collection Date: 6/28/2017 9:30:00 AM

Lab ID: 1706F29-001

Matrix: SOIL

Received Date: 6/29/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	6/29/2017 10:45:44 AM	32562
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/29/2017 9:20:29 AM	32558
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/29/2017 9:20:29 AM	32558
Surr: DNOP	108	70-130		%Rec	1	6/29/2017 9:20:29 AM	32558
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	6/29/2017 9:38:16 AM	32541
Surr: BFB	93.1	54-150		%Rec	1	6/29/2017 9:38:16 AM	32541
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	6/29/2017 9:38:16 AM	32541
Toluene	ND	0.037		mg/Kg	1	6/29/2017 9:38:16 AM	32541
Ethylbenzene	ND	0.037		mg/Kg	1	6/29/2017 9:38:16 AM	32541
Xylenes, Total	ND	0.075		mg/Kg	1	6/29/2017 9:38:16 AM	32541
Surr: 4-Bromofluorobenzene	119	66.6-132		%Rec	1	6/29/2017 9:38:16 AM	32541

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	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	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1706F29

Date Reported: 6/30/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering  
 Project: ATLANTIC B LS 3C  
 Lab ID: 1706F29-002

Matrix: SOIL

Client Sample ID: 5 PC-WSW @ 4'-6'  
 Collection Date: 6/28/2017 9:40:00 AM  
 Received Date: 6/29/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	6/29/2017 10:58:09 AM	32562
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/29/2017 9:42:40 AM	32558
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/29/2017 9:42:40 AM	32558
Surr: DNOP	109	70-130		%Rec	1	6/29/2017 9:42:40 AM	32558
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	6/29/2017 10:02:13 AM	32541
Surr: BFB	97.1	54-150		%Rec	1	6/29/2017 10:02:13 AM	32541
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.020		mg/Kg	1	6/29/2017 10:02:13 AM	32541
Toluene	ND	0.041		mg/Kg	1	6/29/2017 10:02:13 AM	32541
Ethylbenzene	ND	0.041		mg/Kg	1	6/29/2017 10:02:13 AM	32541
Xylenes, Total	ND	0.082		mg/Kg	1	6/29/2017 10:02:13 AM	32541
Surr: 4-Bromofluorobenzene	127	66.6-132		%Rec	1	6/29/2017 10:02:13 AM	32541

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
D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1706F29

Date Reported: 6/30/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 5 PC-SSW @ 4'-6'

Project: ATLANTIC B LS 3C

Collection Date: 6/28/2017 9:50:00 AM

Lab ID: 1706F29-003

Matrix: SOIL

Received Date: 6/29/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	6/29/2017 11:10:34 AM	32562
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/29/2017 10:04:49 AM	32558
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2017 10:04:49 AM	32558
Surr: DNOP	111	70-130		%Rec	1	6/29/2017 10:04:49 AM	32558
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	6/29/2017 10:26:07 AM	32541
Surr: BFB	92.2	54-150		%Rec	1	6/29/2017 10:26:07 AM	32541
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	6/29/2017 10:26:07 AM	32541
Toluene	ND	0.035		mg/Kg	1	6/29/2017 10:26:07 AM	32541
Ethylbenzene	ND	0.035		mg/Kg	1	6/29/2017 10:26:07 AM	32541
Xylenes, Total	ND	0.069		mg/Kg	1	6/29/2017 10:26:07 AM	32541
Surr: 4-Bromofluorobenzene	119	66.6-132		%Rec	1	6/29/2017 10:26:07 AM	32541

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	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	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1706F29

Date Reported: 6/30/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: BASE CENTER @ 7'-8'

Project: ATLANTIC B LS 3C

Collection Date: 6/28/2017 10:00:00 AM

Lab ID: 1706F29-004

Matrix: SOIL

Received Date: 6/29/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	6/29/2017 11:22:59 AM	32562
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/29/2017 10:26:52 AM	32558
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2017 10:26:52 AM	32558
Surr: DNOP	111	70-130		%Rec	1	6/29/2017 10:26:52 AM	32558
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	6/29/2017 10:50:07 AM	32541
Surr: BFB	95.0	54-150		%Rec	1	6/29/2017 10:50:07 AM	32541
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	6/29/2017 10:50:07 AM	32541
Toluene	ND	0.033		mg/Kg	1	6/29/2017 10:50:07 AM	32541
Ethylbenzene	ND	0.033		mg/Kg	1	6/29/2017 10:50:07 AM	32541
Xylenes, Total	ND	0.065		mg/Kg	1	6/29/2017 10:50:07 AM	32541
Surr: 4-Bromofluorobenzene	123	66.6-132		%Rec	1	6/29/2017 10:50:07 AM	32541

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	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	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Blagg Engineering

Client Sample ID: BASE WEST @ 7'-8'

Project: ATLANTIC B LS 3C

Collection Date: 6/28/2017 10:10:00 AM

Lab ID: 1706F29-005

Matrix: SOIL

Received Date: 6/29/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	6/29/2017 11:35:24 AM	32562
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/29/2017 10:49:02 AM	32558
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2017 10:49:02 AM	32558
Surr: DNOP	109	70-130		%Rec	1	6/29/2017 10:49:02 AM	32558
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	6/29/2017 11:14:08 AM	32541
Surr: BFB	90.3	54-150		%Rec	1	6/29/2017 11:14:08 AM	32541
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	6/29/2017 11:14:08 AM	32541
Toluene	ND	0.033		mg/Kg	1	6/29/2017 11:14:08 AM	32541
Ethylbenzene	ND	0.033		mg/Kg	1	6/29/2017 11:14:08 AM	32541
Xylenes, Total	ND	0.067		mg/Kg	1	6/29/2017 11:14:08 AM	32541
Surr: 4-Bromofluorobenzene	117	66.6-132		%Rec	1	6/29/2017 11:14:08 AM	32541

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
D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1706F29

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 5 PC- NSW @ 4'

Project: ATLANTIC B LS 3C

Collection Date: 6/28/2017 9:30:00 AM

Lab ID: 1706F29-001

Matrix: SOIL

Received Date: 6/29/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	6/29/2017 10:45:44 AM	32562
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/29/2017 9:20:29 AM	32558
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/29/2017 9:20:29 AM	32558
Surr: DNOP	108	70-130		%Rec	1	6/29/2017 9:20:29 AM	32558
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	6/29/2017 9:38:16 AM	R43884
Surr: BFB	93.1	54-150		%Rec	1	6/29/2017 9:38:16 AM	R43884
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	6/29/2017 9:38:16 AM	R43884
Toluene	ND	0.037		mg/Kg	1	6/29/2017 9:38:16 AM	R43884
Ethylbenzene	ND	0.037		mg/Kg	1	6/29/2017 9:38:16 AM	R43884
Xylenes, Total	ND	0.075		mg/Kg	1	6/29/2017 9:38:16 AM	R43884
Surr: 4-Bromofluorobenzene	119	66.6-132		%Rec	1	6/29/2017 9:38:16 AM	R43884

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

PRELIMINARY

Analytical Report

Lab Order 1706F29

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 5 PC-WSW @ 4'-6'

Project: ATLANTIC B LS 3C

Collection Date: 6/28/2017 9:40:00 AM

Lab ID: 1706F29-002

Matrix: SOIL

Received Date: 6/29/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	6/29/2017 10:58:09 AM	32562
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/29/2017 9:42:40 AM	32558
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/29/2017 9:42:40 AM	32558
Surr: DNOP	109	70-130		%Rec	1	6/29/2017 9:42:40 AM	32558
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	6/29/2017 10:02:13 AM	R43884
Surr: BFB	97.1	54-150		%Rec	1	6/29/2017 10:02:13 AM	R43884
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.020		mg/Kg	1	6/29/2017 10:02:13 AM	R43884
Toluene	ND	0.041		mg/Kg	1	6/29/2017 10:02:13 AM	R43884
Ethylbenzene	ND	0.041		mg/Kg	1	6/29/2017 10:02:13 AM	R43884
Xylenes, Total	ND	0.082		mg/Kg	1	6/29/2017 10:02:13 AM	R43884
Surr: 4-Bromofluorobenzene	127	66.6-132		%Rec	1	6/29/2017 10:02:13 AM	R43884

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

PRELIMINARY

Analytical Report

Lab Order 1706F29

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 5 PC-SSW @ 4'-6'

Project: ATLANTIC B LS 3C

Collection Date: 6/28/2017 9:50:00 AM

Lab ID: 1706F29-003

Matrix: SOIL

Received Date: 6/29/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	6/29/2017 11:10:34 AM	32562
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/29/2017 10:04:49 AM	32558
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2017 10:04:49 AM	32558
Surr: DNOP	111	70-130		%Rec	1	6/29/2017 10:04:49 AM	32558
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	6/29/2017 10:26:07 AM	R43884
Surr: BFB	92.2	54-150		%Rec	1	6/29/2017 10:26:07 AM	R43884
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	6/29/2017 10:26:07 AM	R43884
Toluene	ND	0.035		mg/Kg	1	6/29/2017 10:26:07 AM	R43884
Ethylbenzene	ND	0.035		mg/Kg	1	6/29/2017 10:26:07 AM	R43884
Xylenes, Total	ND	0.069		mg/Kg	1	6/29/2017 10:26:07 AM	R43884
Surr: 4-Bromofluorobenzene	119	66.6-132		%Rec	1	6/29/2017 10:26:07 AM	R43884

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	
	D Sample Diluted Due to Matrix	E Value above quantitation range	
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits	Page 3 of 0
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range	
	PQL Practical Quantitative Limit	RL Reporting Detection Limit	
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified	

PRELIMINARY

Analytical Report

Lab Order 1706F29

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: BASE CENTER @ 7'-8'

Project: ATLANTIC B LS 3C

Collection Date: 6/28/2017 10:00:00 AM

Lab ID: 1706F29-004

Matrix: SOIL

Received Date: 6/29/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	6/29/2017 11:22:59 AM	32562
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/29/2017 10:26:52 AM	32558
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2017 10:26:52 AM	32558
Surr: DNOP	111	70-130		%Rec	1	6/29/2017 10:26:52 AM	32558
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	6/29/2017 10:50:07 AM	R43884
Surr: BFB	95.0	54-150		%Rec	1	6/29/2017 10:50:07 AM	R43884
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	6/29/2017 10:50:07 AM	R43884
Toluene	ND	0.033		mg/Kg	1	6/29/2017 10:50:07 AM	R43884
Ethylbenzene	ND	0.033		mg/Kg	1	6/29/2017 10:50:07 AM	R43884
Xylenes, Total	ND	0.065		mg/Kg	1	6/29/2017 10:50:07 AM	R43884
Surr: 4-Bromofluorobenzene	123	66.6-132		%Rec	1	6/29/2017 10:50:07 AM	R43884

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

PRELIMINARY

Analytical Report

Lab Order 1706F29

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: BASE WEST @ 7'-8'

Project: ATLANTIC B LS 3C

Collection Date: 6/28/2017 10:10:00 AM

Lab ID: 1706F29-005

Matrix: SOIL

Received Date: 6/29/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	6/29/2017 11:35:24 AM	32562
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/29/2017 10:49:02 AM	32558
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2017 10:49:02 AM	32558
Surr: DNOP	109	70-130		%Rec	1	6/29/2017 10:49:02 AM	32558
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	6/29/2017 11:14:08 AM	R43884
Surr: BFB	90.3	54-150		%Rec	1	6/29/2017 11:14:08 AM	R43884
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	6/29/2017 11:14:08 AM	R43884
Toluene	ND	0.033		mg/Kg	1	6/29/2017 11:14:08 AM	R43884
Ethylbenzene	ND	0.033		mg/Kg	1	6/29/2017 11:14:08 AM	R43884
Xylenes, Total	ND	0.067		mg/Kg	1	6/29/2017 11:14:08 AM	R43884
Surr: 4-Bromofluorobenzene	117	66.6-132		%Rec	1	6/29/2017 11:14:08 AM	R43884

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

PRELIMINARY





# Chain-of-Custody Record

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

Mailing Address: **200 Energy Court**  
**Farmington, NM 87401**

Phone #: **(505) 326-9497**

email or Fax#:

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

Accreditation:  
 NELAP  Other \_\_\_\_\_  
 EDD (Type) \_\_\_\_\_

Turn-Around Time: **SAME DAY**

Standard  Rush

Project Name: **ATLANTIC B LS # 3C**

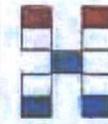
Project #:

Project Manager: **STEVE MOSKAL**

Sampler: **NELSON VELEZ**

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

### Analysis Request

Date	Time	Matrix	Sample Request ID	At 06/29/17 Container Type and # <i>Meat kits</i>	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (802LB)	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 <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8250B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)	Grab sample	# pt. composite sample	Air Bubbles (Y or N)
6/28/17	0930	SOIL	SPC-NSW e 4'	402-1	COOL	201	✓	✓										✓		5	
6/28/17	0940	SOIL	SPC-WSW e 4'-6'	402-1	COOL	202	✓	✓										✓		5	
6/28/17	0950	SOIL	SPC-SSW e 4'-6'	402-1	COOL	203	✓	✓										✓		5	
6/28/17	1000	SOIL	BASE CENTER e 7'-8'	402-1	COOL	204	✓	✓										✓		5	
6/28/17	1010	SOIL	BASE WEST e 7'-8'	402-1	COOL	205	✓	✓										✓		5	

Date: **6/28/17** Time: **1710** Relinquished by: *[Signature]* Received by: *[Signature]* Date: **6/28/17** Time: **1710**

Date: **6/28/17** Time: **1850** Relinquished by: *[Signature]* Received by: *[Signature]* Date: **06/29/17** Time: **0730**

Remarks: **BILL DIRECTLY TO BP USING THE CONTACT WITH CORRESPONDING VID & REFERENCE # WHEN APPLICABLE.**  
**CONTACT: STEVE MOSKAL / SABRE BEEBE**  
**BILLING INFO. EMAILED TO HALL THIS MORNING.**

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 noted on the analytical report.

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1706D38

28-Jun-17

**Client:** Blagg Engineering

**Project:** Atlantic B LS 3C

Sample ID	<b>MB-32485</b>	SampType:	<b>mblk</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>32485</b>	RunNo:	<b>43787</b>					
Prep Date:	<b>6/26/2017</b>	Analysis Date:	<b>6/26/2017</b>	SeqNo:	<b>1380561</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	<b>LCS-32485</b>	SampType:	<b>lcs</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>32485</b>	RunNo:	<b>43787</b>					
Prep Date:	<b>6/26/2017</b>	Analysis Date:	<b>6/26/2017</b>	SeqNo:	<b>1380562</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.1	90	110			

**Qualifiers:**

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
| D Sample Diluted Due to Matrix                          | 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                  | P Sample pH Not In Range                                    |
| PQL Practical Quantitative Limit                        | RL Reporting Detection Limit                                |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706D38

28-Jun-17

Client: Blagg Engineering

Project: Atlantic B LS 3C

Sample ID	<b>MB-32473</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>32473</b>	RunNo:	<b>43777</b>					
Prep Date:	<b>6/26/2017</b>	Analysis Date:	<b>6/26/2017</b>	SeqNo:	<b>1378964</b>	Units:	<b>mg/Kg</b>			
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	8.6		10.00		86.2	70	130			

Sample ID	<b>LCS-32473</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>32473</b>	RunNo:	<b>43777</b>					
Prep Date:	<b>6/26/2017</b>	Analysis Date:	<b>6/26/2017</b>	SeqNo:	<b>1379082</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	108	73.2	114			
Surr: DNOP	4.7		5.000		93.3	70	130			

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706D38

28-Jun-17

Client: Blagg Engineering

Project: Atlantic B LS 3C

Sample ID	<b>MB-32458</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>32458</b>	RunNo:	<b>43789</b>					
Prep Date:	<b>6/23/2017</b>	Analysis Date:	<b>6/26/2017</b>	SeqNo:	<b>1379903</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	920		1000		92.3	54	150			

Sample ID	<b>LCS-32458</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>32458</b>	RunNo:	<b>43789</b>					
Prep Date:	<b>6/23/2017</b>	Analysis Date:	<b>6/26/2017</b>	SeqNo:	<b>1379904</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.7	76.4	125			
Surr: BFB	1000		1000		105	54	150			

## Qualifiers:

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
| D Sample Diluted Due to Matrix                          | 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                  | P Sample pH Not In Range                                    |
| PQL Practical Quantitative Limit                        | RL Reporting Detection Limit                                |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706D38

28-Jun-17

Client: Blagg Engineering

Project: Atlantic B LS 3C

Sample ID	<b>MB-32458</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>32458</b>	RunNo:	<b>43789</b>					
Prep Date:	<b>6/23/2017</b>	Analysis Date:	<b>6/26/2017</b>	SeqNo:	<b>1379917</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.2		1.000		122	66.6	132			

Sample ID	<b>LCS-32458</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>32458</b>	RunNo:	<b>43789</b>					
Prep Date:	<b>6/23/2017</b>	Analysis Date:	<b>6/26/2017</b>	SeqNo:	<b>1379918</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	114	80	120			
Toluene	1.2	0.050	1.000	0	115	80	120			
Ethylbenzene	1.2	0.050	1.000	0	117	80	120			
Xylenes, Total	3.5	0.10	3.000	0	118	80	120			
Surr: 4-Bromofluorobenzene	1.3		1.000		127	66.6	132			

## Qualifiers:

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
| D Sample Diluted Due to Matrix                          | 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                  | P Sample pH Not In Range                                    |
| PQL Practical Quantitative Limit                        | RL Reporting Detection Limit                                |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |



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## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: 1706D38

RcptNo: 1

Received By: **Andy Jansson** 6/24/2017 10:00:00 AM *ajj*  
 Completed By: **Andy Jansson** 6/24/2017 10:49:46 AM *ajj*  
 Reviewed By: *AL* 6/26/17

### 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  # of preserved bottles checked for pH: \_\_\_\_\_  
(<2 or >12 unless noted)
- 13. Are matrices correctly identified on Chain of Custody? Yes  No  Adjusted? \_\_\_\_\_
- 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  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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> 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	1.4	Good	Yes			

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F29

30-Jun-17

Client: Blagg Engineering  
Project: ATLANTIC B LS 3C

Sample ID	<b>MB-32562</b>	SampType:	<b>mblk</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>32562</b>	RunNo:	<b>43889</b>					
Prep Date:	<b>6/29/2017</b>	Analysis Date:	<b>6/29/2017</b>	SeqNo:	<b>1384557</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	<b>LCS-32562</b>	SampType:	<b>lcs</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>32562</b>	RunNo:	<b>43889</b>					
Prep Date:	<b>6/29/2017</b>	Analysis Date:	<b>6/29/2017</b>	SeqNo:	<b>1384558</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.8	90	110			

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F29  
30-Jun-17

**Client:** Blagg Engineering  
**Project:** ATLANTIC B LS 3C

Sample ID: <b>MB-32558</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>32558</b>	RunNo: <b>43873</b>								
Prep Date: <b>6/29/2017</b>	Analysis Date: <b>6/29/2017</b>	SeqNo: <b>1382817</b>	Units: <b>mg/Kg</b>							
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	11		10.00		108	70	130			

Sample ID: <b>LCS-32558</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>32558</b>	RunNo: <b>43873</b>								
Prep Date: <b>6/29/2017</b>	Analysis Date: <b>6/29/2017</b>	SeqNo: <b>1382818</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.8	73.2	114			
Surr: DNOP	5.1		5.000		103	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F29

30-Jun-17

Client: Blagg Engineering  
Project: ATLANTIC B LS 3C

Sample ID	<b>MB-32541</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>32541</b>	RunNo:	<b>43884</b>					
Prep Date:	<b>6/28/2017</b>	Analysis Date:	<b>6/29/2017</b>	SeqNo:	<b>1383897</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	930		1000		93.4	54	150			

Sample ID	<b>LCS-32541</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>32541</b>	RunNo:	<b>43884</b>					
Prep Date:	<b>6/28/2017</b>	Analysis Date:	<b>6/29/2017</b>	SeqNo:	<b>1383898</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	76.4	125			
Surr: BFB	1100		1000		107	54	150			

## Qualifiers:

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
| D Sample Diluted Due to Matrix                          | 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                  | P Sample pH Not In Range                                    |
| PQL Practical Quantitative Limit                        | RL Reporting Detection Limit                                |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F29

30-Jun-17

Client: Blagg Engineering  
Project: ATLANTIC B LS 3C

Sample ID	<b>MB-32541</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>32541</b>	RunNo:	<b>43884</b>					
Prep Date:	<b>6/28/2017</b>	Analysis Date:	<b>6/29/2017</b>	SeqNo:	<b>1383918</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.2		1.000		121	66.6	132			

Sample ID	<b>LCS-32541</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>32541</b>	RunNo:	<b>43884</b>					
Prep Date:	<b>6/28/2017</b>	Analysis Date:	<b>6/29/2017</b>	SeqNo:	<b>1383919</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	114	80	120			
Toluene	1.1	0.050	1.000	0	113	80	120			
Ethylbenzene	1.1	0.050	1.000	0	114	80	120			
Xylenes, Total	3.5	0.10	3.000	0	116	80	120			
Surr: 4-Bromofluorobenzene	1.3		1.000		127	66.6	132			

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified



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## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1706F29**

RcptNo: **1**

Received By: **Anne Thorne**

6/29/2017 7:30:00 AM

*Anne Thorne*

Completed By: **Anne Thorne**

6/29/2017 7:47:10 AM

*Anne Thorne*

Reviewed By:

*[Signature]*

6/29/17

### 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	1.0	Good	Yes			