

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: Northeast Blanco Unit 037	Facility Type: Natural gas well	
Surface Owner: Federal (BLM)	Mineral Owner: Federal	API No. 3004513344

#### LOCATION OF RELEASE



Unit Letter B	Section 6	Township 30N	Range 07W	Feet from the 420	North/South Line North	Feet from the 1990	East/West Line East	County: San Juan
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Latitude 36.84784° Longitude -107.60995°

#### NATURE OF RELEASE

Type of Release: unknown hydrocarbons	Volume of Release: unknown	Volume Recovered: none
Source of Release: Historical impacts, possible former earthen pit	Date and Hour of Occurrence: unknown	Date and Hour of Discovery: November 8, 2017
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" 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 BGT closure activities, impacts were identified beneath the 95 bbl tank. Lab analysis confirms the impacts are above the BGT closure standards and spill and release guidelines with a site ranking of 10.		
Describe Area Affected and Cleanup Action Taken.* The area has not been fully delineated and will be delineated via excavation at a later date. Attached is a preliminary field report and lab analysis.		

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: <u>11/27/17</u>	Expiration Date:
E-mail Address: steven.moskal@bp.com	Conditions of Approval: <u>Include 8015, 8021 MRO</u>	Attached <input type="checkbox"/>
Date: November 22, 2017	Phone: 505-326-9497	

\* Attach Additional Sheets If Necessary

Sample Area For  
Notify 24 hour notice prior  
to sampling  
NVE1731752853



CLIENT: <b>BP</b>	<b>BLAGG ENGINEERING, INC.</b> <b>P.O. BOX 87, BLOOMFIELD, NM 87413</b> <b>(505) 632-1199</b>	API #: <b>30045 13344</b> TANK ID (if applicable): <b>A &amp; B</b>
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<b>FIELD REPORT:</b> (circle one): <u>BGT CONFIRMATION</u> / RELEASE INVESTIGATION / OTHER:	PAGE #: <u>1</u> of <u>    </u>
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<b>SITE INFORMATION:</b> SITE NAME: <u>NEBU #37</u> QUAD/UNIT: <u>B SEC: 6 TWP: 30 N RNG: 7 W PM: NM CNTY: SJ ST: NM</u> 1/4-1/4 FOOTAGE: <u>420' N / 1,900' E</u> <u>NW/NE</u> LEASE TYPE: <u>FEDERAL</u> STATE / FEE / INDIAN LEASE #: <u>SF 079042</u> PROD. FORMATION: <u>MV</u> CONTRACTOR: <u>BP-J. GONZALES</u>	DATE STARTED: <u>11/07/17</u> DATE FINISHED: <u>    </u> ENVIRONMENTAL SPECIALIST(S): <u>NJV / JCB</u>
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<b>REFERENCE POINT:</b> 1) <u>35 BGT (NW/DB) - A</u> 2) <u>95 BGT (SW/DB) - B</u> 3) <u>    </u> 4) <u>    </u>	WELL HEAD (W.H.) GPS COORD.: <u>36.847855 X 107.609869</u> GL ELEV.: <u>6,165'</u> GPS COORD.: <u>36.847837 X 107.610081</u> DISTANCE/BEARING FROM W.H.: <u>63', 584W</u> GPS COORD.: <u>36.347616 X 107.609684</u> DISTANCE/BEARING FROM W.H.: <u>107.5', 532E</u> GPS COORD.: <u>    </u> DISTANCE/BEARING FROM W.H.: <u>    </u> GPS COORD.: <u>    </u> DISTANCE/BEARING FROM W.H.: <u>    </u>
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<b>SAMPLING DATA:</b> 1) SAMPLE ID: <u>5PC-TB C 4' (35)</u> SAMPLE DATE: <u>11/07/17</u> SAMPLE TIME: <u>1315</u> LAB ANALYSIS: <u>8015B/8021B/300.0 (CI)</u> 2) SAMPLE ID: <u>5PC-TB C 4' (95)</u> SAMPLE DATE: <u>    </u> SAMPLE TIME: <u>1345</u> LAB ANALYSIS: <u>    </u> 3) SAMPLE ID: <u>1 C 4' (95)</u> SAMPLE DATE: <u>    </u> SAMPLE TIME: <u>1350</u> LAB ANALYSIS: <u>    </u> 4) SAMPLE ID: <u>1 C 8' (95)</u> SAMPLE DATE: <u>    </u> SAMPLE TIME: <u>1405</u> LAB ANALYSIS: <u>    </u> 5) SAMPLE ID: <u>    </u> SAMPLE DATE: <u>    </u> SAMPLE TIME: <u>    </u> LAB ANALYSIS: <u>    </u>	CHAIN OF CUSTODY RECORD(S) # OR LAB USED: <u>HALL</u> OVM READING (ppm): <u>0.0</u> <u>2.3</u> <u>2.7</u> <u>392</u>
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<b>SOIL DESCRIPTION:</b> SOIL TYPE: <u>SAND / SILTY SAND / SILT / SILTY CLAY / CLAY / GRAVE</u> OTHER: <u>    </u> SOIL COLOR: <u>MUSTY MODERATE BROWN</u> COHESION (ALL OTHERS): NON COHESIVE / <u>SLIGHTLY COHESIVE</u> / COHESIVE / HIGHLY COHESIVE CONSISTENCY (NON COHESIVE SOILS): <u>LOOSE / FIRM</u> / DENSE / VERY DENSE MOISTURE: DRY / <u>SLIGHTLY MOIST</u> / MOIST / WET / SATURATED / SUPER SATURATED SAMPLE TYPE: <u>GRAB / COMPOSITE</u> # OF PTS. <u>5</u> DISCOLORATION/STAINING OBSERVED: <u>YES</u> / NO EXPLANATION: <u>GRAYISH BLACK TO LIGHT MEDIUM GRAY (95 BGT ONLY).</u>	PLASTICITY (CLAYS): NON PLASTIC / <u>SLIGHTLY PLASTIC</u> / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC DENSITY (COHESIVE CLAYS & SILTS): SOFT / <u>FIRM</u> / <u>STIFF</u> / VERY STIFF / HARD HC ODOR DETECTED: <u>YES</u> / NO EXPLANATION: <u>DISCOLORED SOILS @ 95 BGT ONLY.</u> ANY AREAS DISPLAYING WETNESS: YES / <u>NO</u> EXPLANATION: <u>    </u>
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<b>SITE OBSERVATIONS:</b> LOST INTEGRITY OF EQUIPMENT: YES / NO EXPLANATION: <u>POSSIBLY BENEATH 95 BGT.</u> APPARENT EVIDENCE OF A RELEASE OBSERVED AND/OR OCCURRED: <u>YES</u> / NO EXPLANATION: <u>AT 95 BGT ONLY (DISCOLORED SOILS &amp; HC ODOR).</u> EQUIPMENT SET OVER RECLAIMED AREA: <u>YES</u> / NO EXPLANATION: <u>105 BGL LIFT TO BE SET ATOP 35 BGT LOCATION.</u> OTHER: <u>NMOCOD OR BUM REFS. NOT PRESENT TO WITNESS SAMPLING.</u>	EXCAVATION DIMENSION ESTIMATION: <u>    </u> ft X <u>    </u> ft X <u>    </u> ft EXCAVATION ESTIMATION (Cubic Yards): <u>    </u> DEPTH TO GROUNDWATER: <u>&gt;100'</u> NEAREST WATER SOURCE: <u>&gt;1,000'</u> NEAREST SURFACE WATER: <u>&lt;1,000'</u> NMOCOD TPH CLOSURE STD: <u>1,000</u> ppm
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<b>SITE SKETCH</b> BGT Located: off <input checked="" type="checkbox"/> on site PLOT PLAN circle: <u>attached</u> 	OVM CALIB. READ: <u>100.0</u> ppm RF=1.00 OVM CALIB. GAS: <u>100</u> ppm TIME: <u>2:10</u> am/pm DATE: <u>11/07/17</u>
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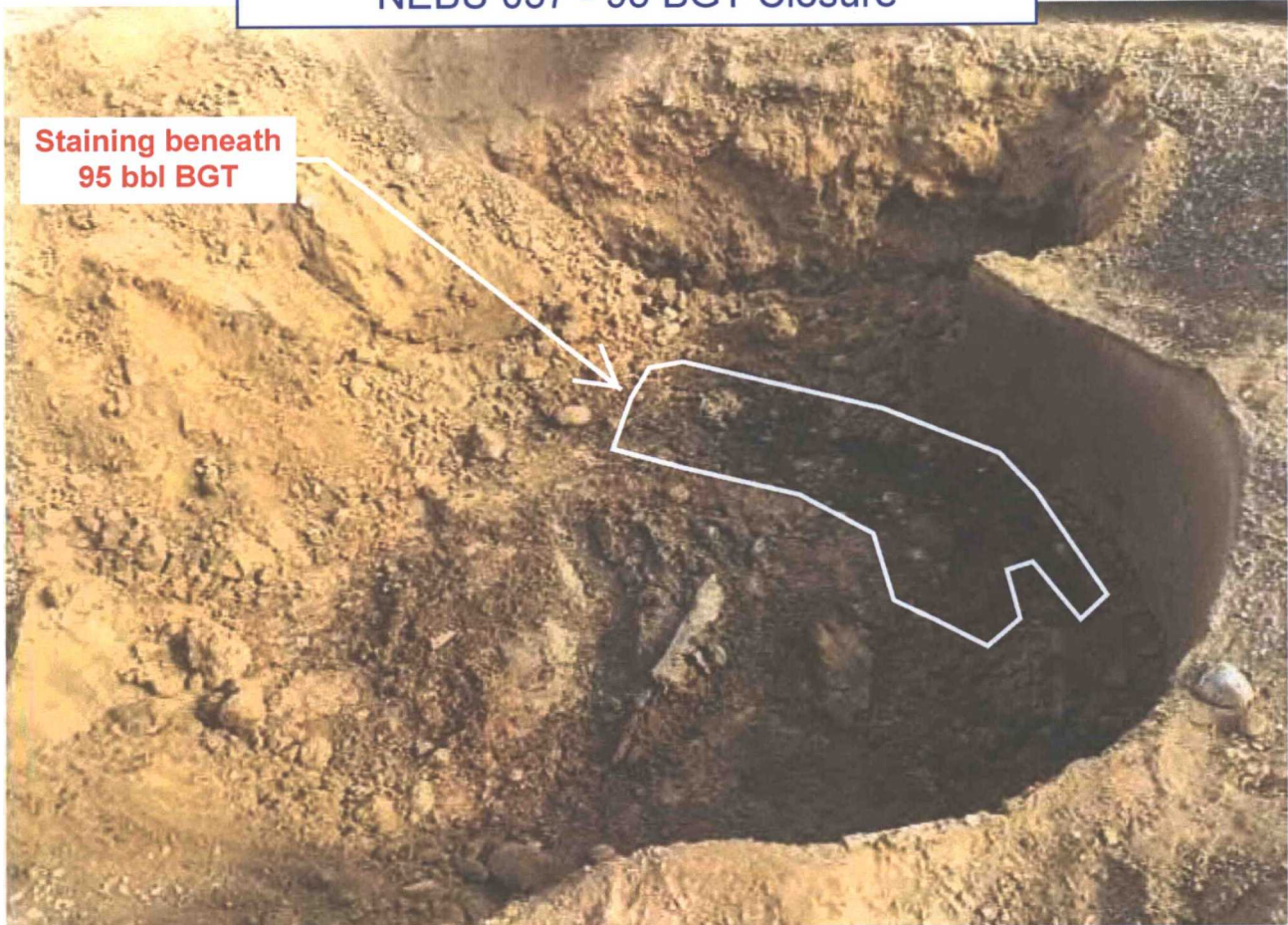
  

NOTES: BGT = BELOW-GRADE TANK; E.D. = EXCAVATION DEPRESSION; B.G. = BELOW GRADE; B = BELOW; T.H. = TEST HOLE; - = APPROX.; W.H. = WELL HEAD; T.B. = TANK BOTTOM; PBGTL = PREVIOUS BELOW-GRADE TANK LOCATION; SPD = SAMPLE POINT DESIGNATION; R.W. = RETAINING WALL; NA = NOT APPLICABLE OR NOT AVAILABLE; SW - SINGLE WALL; DW - DOUBLE WALL; SB - SINGLE BOTTOM; DB - DOUBLE BOTTOM. NOTES: <u>GOOGLE EARTH IMAGERY DATE: 3/15/2015</u> . ONSITE: <u>11/07/17</u>	<b>MISCELL. NOTES</b> WO: <u>    </u> REF #: <u>P-902</u> VID: <u>VHIXONEV11</u> PJ #: <u>    </u> Permit date(s): <u>10/04/17</u> OCD Appr. date(s): <u>10/06/17</u> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Tank ID</th> <th>OVM = Organic Vapor Meter ppm = parts per million</th> </tr> <tr> <td><u>A</u></td> <td>BGT Sidewalls Visible: Y / <u>N</u></td> </tr> <tr> <td><u>B</u></td> <td>BGT Sidewalls Visible: Y / <u>N</u></td> </tr> <tr> <td colspan="2">BGT Sidewalls Visible: Y / N</td> </tr> </table> Magnetic declination: <u>10° E</u>	Tank ID	OVM = Organic Vapor Meter ppm = parts per million	<u>A</u>	BGT Sidewalls Visible: Y / <u>N</u>	<u>B</u>	BGT Sidewalls Visible: Y / <u>N</u>	BGT Sidewalls Visible: Y / N	
Tank ID	OVM = Organic Vapor Meter ppm = parts per million								
<u>A</u>	BGT Sidewalls Visible: Y / <u>N</u>								
<u>B</u>	BGT Sidewalls Visible: Y / <u>N</u>								
BGT Sidewalls Visible: Y / N									

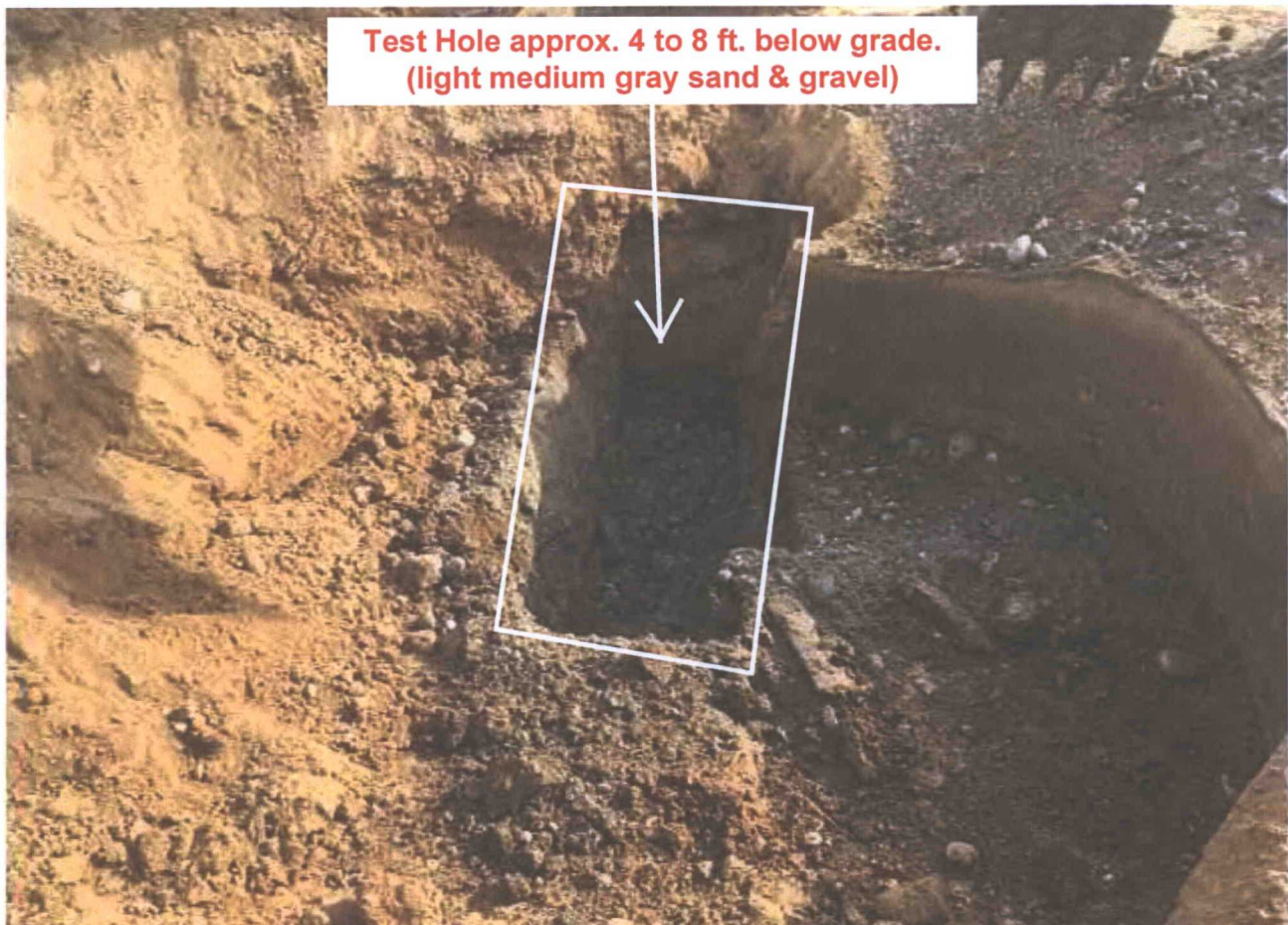


NEBU 037 - 95 BGT Closure

Staining beneath  
95 bbl BGT



Test Hole approx. 4 to 8 ft. below grade.  
(light medium gray sand & gravel)







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

November 09, 2017

Nelson Velez  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL: (505) 632-1199  
FAX (505) 632-3903

RE: NEBU #37

OrderNo.: 1711381

Dear Nelson Velez:

Hall Environmental Analysis Laboratory received 2 sample(s) on 11/8/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1711381

Date Reported: 11/9/2017

CLIENT: Blagg Engineering

Client Sample ID: 1 @ 4' (95)

Project: NEBU #37

Collection Date: 11/7/2017 1:50:00 PM

Lab ID: 1711381-001

Matrix: SOIL

Received Date: 11/8/2017 7:00:00 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	11/8/2017 12:44:11 PM	34889
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	620	96		mg/Kg	10	11/8/2017 11:00:16 AM	34882
Motor Oil Range Organics (MRO)	3200	480		mg/Kg	10	11/8/2017 11:00:16 AM	34882
Surr: DNOP	0	70-130	S	%Rec	10	11/8/2017 11:00:16 AM	34882
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	19		mg/Kg	5	11/8/2017 10:02:03 AM	34869
Surr: BFB	110	15-316		%Rec	5	11/8/2017 10:02:03 AM	34869
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.096		mg/Kg	5	11/8/2017 10:02:03 AM	34869
Toluene	ND	0.19		mg/Kg	5	11/8/2017 10:02:03 AM	34869
Ethylbenzene	ND	0.19		mg/Kg	5	11/8/2017 10:02:03 AM	34869
Xylenes, Total	ND	0.38		mg/Kg	5	11/8/2017 10:02:03 AM	34869
Surr: 4-Bromofluorobenzene	109	80-120		%Rec	5	11/8/2017 10:02:03 AM	34869

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



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1711381

Date Reported: 11/9/2017

CLIENT: Blagg Engineering

Client Sample ID: 1 @ 8' (95)

Project: NEBU #37

Collection Date: 11/7/2017 2:05:00 PM

Lab ID: 1711381-002

Matrix: SOIL

Received Date: 11/8/2017 7:00:00 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	11/8/2017 12:56:35 PM	34889
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	8100	930		mg/Kg	100	11/8/2017 12:39:29 PM	34882
Motor Oil Range Organics (MRO)	13000	4600		mg/Kg	100	11/8/2017 12:39:29 PM	34882
Surr: DNOP	0	70-130	S	%Rec	100	11/8/2017 12:39:29 PM	34882
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	240	22		mg/Kg	5	11/8/2017 10:25:51 AM	34869
Surr: BFB	418	15-316	S	%Rec	5	11/8/2017 10:25:51 AM	34869
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.11		mg/Kg	5	11/8/2017 10:25:51 AM	34869
Toluene	ND	0.22		mg/Kg	5	11/8/2017 10:25:51 AM	34869
Ethylbenzene	0.37	0.22		mg/Kg	5	11/8/2017 10:25:51 AM	34869
Xylenes, Total	8.1	0.44		mg/Kg	5	11/8/2017 10:25:51 AM	34869
Surr: 4-Bromofluorobenzene	134	80-120	S	%Rec	5	11/8/2017 10:25:51 AM	34869

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



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1711381

09-Nov-17

Client: Blagg Engineering

Project: NEBU #37

Sample ID	MB-34889	SampType:	mblk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	34889	RunNo:	46970					
Prep Date:	11/8/2017	Analysis Date:	11/8/2017	SeqNo:	1499332	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-34889	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	34889	RunNo:	46970					
Prep Date:	11/8/2017	Analysis Date:	11/8/2017	SeqNo:	1499333	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.0	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#: 1711381

09-Nov-17

Client: Blagg Engineering

Project: NEBU #37

Sample ID	LCS-34882		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 34882		RunNo: 46959					
Prep Date:	11/8/2017		Analysis Date: 11/8/2017		SeqNo: 1498202		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.4	73.2	114			
Surr: DNOP	4.0		5.000		79.8	70	130			

Sample ID	MB-34882	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 34882			RunNo: 46959					
Prep Date:	11/8/2017	Analysis Date: 11/8/2017			SeqNo: 1498203		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	8.5		10.00		84.9	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#: 1711381

09-Nov-17

Client: Blagg Engineering

Project: NEBU #37

Sample ID	MB-34869	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	34869	RunNo:	46964					
Prep Date:	11/7/2017	Analysis Date:	11/8/2017	SeqNo:	1499080	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	15	316			

Sample ID	LCS-34869	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	34869	RunNo:	46964					
Prep Date:	11/7/2017	Analysis Date:	11/8/2017	SeqNo:	1499081	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	115	75.9	131			
Surr: BFB	1200		1000		117	15	316			

## 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#: 1711381

09-Nov-17

Client: Blagg Engineering

Project: NEBU #37

Sample ID	<b>MB-34869</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>PBS</b>		Batch ID:	<b>34869</b>		RunNo:	<b>46964</b>			
Prep Date:	<b>11/7/2017</b>		Analysis Date:	<b>11/8/2017</b>		SeqNo:	<b>1499090</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	1.1		1.000		107	80	120			

Sample ID	<b>LCS-34869</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>LCSS</b>		Batch ID:	<b>34869</b>		RunNo:	<b>46964</b>			
Prep Date:	<b>11/7/2017</b>		Analysis Date:	<b>11/8/2017</b>		SeqNo:	<b>1499091</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	104	77.3	128			
Toluene	1.1	0.050	1.000	0	106	79.2	125			
Ethylbenzene	1.1	0.050	1.000	0	105	80.7	127			
Xylenes, Total	3.1	0.10	3.000	0	104	81.6	129			
Surr: 4-Bromofluorobenzene	1.1		1.000		112	80	120			

## 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





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: 1711381

RcptNo: 1

Received By: Anne Thorne

11/8/2017 7:00:00 AM

*Anne Thorne*

Completed By: Anne Thorne

11/8/2017 7:18:52 AM

*Anne Thorne*

Reviewed By: *[Signature]*

11/8/17

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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:	<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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.4	Good	Yes			

[illegible]

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.





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4901 Hawkins NE  
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November 09, 2017

Nelson Velez  
Blagg Engineering  
P. O. Box 87  
Bloomfield, NM 87413  
TEL: (505) 632-1199  
FAX (505) 632-3903

RE: NEBU #37

OrderNo.: 1711382

Dear Nelson Velez:

Hall Environmental Analysis Laboratory received 2 sample(s) on 11/8/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", with a stylized flourish at the end.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

## Analytical Report

Lab Order 1711382

Date Reported: 11/9/2017

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 5PC-TB @ 4' (35)

Project: NEBU #37

Collection Date: 11/7/2017 1:15:00 PM

Lab ID: 1711382-001

Matrix: SOIL

Received Date: 11/8/2017 7:00:00 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	11/8/2017 1:09:00 PM	34889
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	11/8/2017 9:54:26 AM	34882
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	11/8/2017 9:54:26 AM	34882
Surr: DNOP	85.9	70-130		%Rec	1	11/8/2017 9:54:26 AM	34882
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	11/8/2017 11:13:27 AM	34869
Surr: BFB	109	15-316		%Rec	1	11/8/2017 11:13:27 AM	34869
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.022		mg/Kg	1	11/8/2017 11:13:27 AM	34869
Toluene	ND	0.043		mg/Kg	1	11/8/2017 11:13:27 AM	34869
Ethylbenzene	ND	0.043		mg/Kg	1	11/8/2017 11:13:27 AM	34869
Xylenes, Total	ND	0.086		mg/Kg	1	11/8/2017 11:13:27 AM	34869
Surr: 4-Bromofluorobenzene	109	80-120		%Rec	1	11/8/2017 11:13:27 AM	34869

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 1711382

Date Reported: 11/9/2017

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Blagg Engineering**Client Sample ID:** 5PC-TB @ 4' (95)**Project:** NEBU #37**Collection Date:** 11/7/2017 1:45:00 PM**Lab ID:** 1711382-002**Matrix:** SOIL**Received Date:** 11/8/2017 7:00:00 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	11/8/2017 1:21:25 PM	34889
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	150	97		mg/Kg	10	11/8/2017 10:16:20 AM	34882
Motor Oil Range Organics (MRO)	1200	480		mg/Kg	10	11/8/2017 10:16:20 AM	34882
Surr: DNOP	0	70-130	S	%Rec	10	11/8/2017 10:16:20 AM	34882
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	11/8/2017 11:37:24 AM	34869
Surr: BFB	105	15-316		%Rec	1	11/8/2017 11:37:24 AM	34869
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.022		mg/Kg	1	11/8/2017 11:37:24 AM	34869
Toluene	ND	0.044		mg/Kg	1	11/8/2017 11:37:24 AM	34869
Ethylbenzene	ND	0.044		mg/Kg	1	11/8/2017 11:37:24 AM	34869
Xylenes, Total	ND	0.088		mg/Kg	1	11/8/2017 11:37:24 AM	34869
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	11/8/2017 11:37:24 AM	34869

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1711382

09-Nov-17

Client: Blagg Engineering

Project: NEBU #37

Sample ID	MB-34889	SampType:	mblk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	34889	RunNo:	46970					
Prep Date:	11/8/2017	Analysis Date:	11/8/2017	SeqNo:	1499332	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-34889	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	34889	RunNo:	46970					
Prep Date:	11/8/2017	Analysis Date:	11/8/2017	SeqNo:	1499333	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.0	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#: 1711382

09-Nov-17

Client: Blagg Engineering

Project: NEBU #37

Sample ID	LCS-34882		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 34882		RunNo: 46959					
Prep Date:	11/8/2017		Analysis Date: 11/8/2017		SeqNo: 1498202		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.4	73.2	114			
Surr: DNOP	4.0		5.000		79.8	70	130			

Sample ID	MB-34882	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 34882			RunNo: 46959					
Prep Date:	11/8/2017	Analysis Date: 11/8/2017			SeqNo: 1498203		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	8.5		10.00		84.9	70	130			

## 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#: 1711382

09-Nov-17

Client: Blagg Engineering

Project: NEBU #37

Sample ID	MB-34869	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	34869	RunNo:	46964					
Prep Date:	11/7/2017	Analysis Date:	11/8/2017	SeqNo:	1499080	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	15	316			

Sample ID	LCS-34869	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	34869	RunNo:	46964					
Prep Date:	11/7/2017	Analysis Date:	11/8/2017	SeqNo:	1499081	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	115	75.9	131			
Surr: BFB	1200		1000		117	15	316			

## 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#: 1711382

09-Nov-17

Client: Blagg Engineering

Project: NEBU #37

Sample ID	MB-34869		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 34869		RunNo: 46964					
Prep Date:	11/7/2017		Analysis Date: 11/8/2017		SeqNo: 1499090		Units: mg/Kg			
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	1.1		1.000		107	80	120			

Sample ID	LCS-34869		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 34869		RunNo: 46964					
Prep Date:	11/7/2017		Analysis Date: 11/8/2017		SeqNo: 1499091		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	104	77.3	128			
Toluene	1.1	0.050	1.000	0	106	79.2	125			
Ethylbenzene	1.1	0.050	1.000	0	105	80.7	127			
Xylenes, Total	3.1	0.10	3.000	0	104	81.6	129			
Surr: 4-Bromofluorobenzene	1.1		1.000		112	80	120			

## 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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Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: **BLAGG**

Work Order Number: **1711382**

RcptNo: **1**

Received By: **Anne Thorne**

11/8/2017 7:00:00 AM

*Anne Thorne*

Completed By: **Anne Thorne**

11/8/2017 7:22:49 AM

*Anne Thorne*

Reviewed By: *[Signature]*

11/8/17

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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:	<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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.4	Good	Yes			

[illegible]

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.