

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 April 3, 2017

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 America Production Company	Contact	Erin Garifalos
Address	200 Energy Court, Farmington, NM 87401	Telephone No.	(832) 609-7048
Facility Name	GOOCH 003	Facility Type	Natural Gas Well

Surface Owner	Federal	Mineral Owner	Federal	API No.	3004523476
---------------	---------	---------------	---------	---------	------------

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	32	28N	08W	990	North	1,850	East	San Juan

Latitude 36.62218 Longitude -107.70157 NAD83

**NATURE OF RELEASE**

Type of Release: none	Volume of Release: unknown	Volume Recovered: none
Source of Release: Unknown - suspected 95 bbl BGT	Date and Hour of Occurrence: unknown	Date and Hour of Discovery: December 18, 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.\*

**NMOCD**  
**FEB 26 2018**

Describe Cause of Problem and Remedial Action Taken.\*

During the closure of a below grade tank, sampling indicated what appears to be hydrocarbon impacts to the soil, likely associated with tank integrity loss.

**DISTRICT III**

Describe Area Affected and Cleanup Action Taken.\*

BP fully delineated the impacts via excavation with soils hauled off for landfarm treatment. Clean, imported soil was imported from a BLM prescribed location. Attached is a narrative of the activities and accompanying laboratory data. BP requests no further action.

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

Signature: <i>erin garifalos</i>		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Erin Garifalos		Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Field Environmental Coordinator		Approval Date: 2/27/18	Expiration Date:
E-mail Address: erin.garifalos@bp.com		Conditions of Approval:	
Date: February 21, 2018 Phone: (832) 609-7048		Attached <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary

#NOV 180 264 8729

19

**BP America**  
**Gooch 3**  
**(B) Sec 32 – T28N – R8W**  
**San Juan County, New Mexico**  
**API: 30-045-23476**

Summary Record of Impact Remediation

December 18, 2017 Soils impacted with hydrocarbons were encountered during closure of a 95 barrel below grade tank. Analytical laboratory testing of impacted soils immediately below the BGT at the 5' depth reported total petroleum hydrocarbons (TPH) at 5,740 ppm, total BTEX at 272 ppm, Benzene at non-detect (ND) and Chloride at ND. The lithology at the BGT location was dense sandstone, and the BGT was placed within excavated sandstone.

Site closure standard determined at 1,000 ppm TPH and 50 ppm total BTEX (with 10 ppm benzene) based on:

Horizontal Distance to Water Course < 1,000 feet (10 points)  
Distance to Nearest Water Well > 1,000 feet (0 points)  
Depth to Groundwater > 100 feet (0 points)

Additional actions were suspended pending development of a remediation plan.

January 22-23, 2018 Conduct remediation via excavation of impacts with a trackhoe. Site lithology was a dense bedrock sandstone. Completed excavation 33' x 18' x 8' deep.

January 23, 2018 Conduct closure sampling on sidewalls and base.

**Excavation Closure Sampling Test Results**  
**January 23, 2017**

Sample ID	Date/Time	Field OVM (ppm)	TPH Method 8015B (mg/Kg)	BTEX Method 8021 (mg/Kg)	Benzene Method 8021 (mg/Kg)	Chloride Method 300 (mg/Kg)
North Sidewall 5-pt @ (2'-7')	01/23/2018 @ 13:05	1.0	ND	ND	ND	ND
South Sidewall 5-pt @ (2'-7')	01/23/2018 @ 13:18	51.5	21	ND	ND	ND
East Sidewall 5-pt @ (2'-7')	01/23/2018 @ 13:27	375	15	ND	ND	ND
West Sidewall 5-pt @ (2'-7')	01/23/2018 @ 13:34	360	59	ND	ND	ND
Base 5-pt @ 8'	01/23/2018 @ 13:22	2,320	240	7.58	ND	ND
Site	Closure	Standard:	1,000	50	10	600



Gooch 003  
(B) Sec 32-T28N-R8W  
API: 30-045-23476

Gooch 3



Closure Sampling - January 23, 2018

North Wall 5-pt (2'-7")	OVM = 1.0 ppm	BTEX = ND	TPH = ND
South Wall 5-pt (2'-7")	OVM = 51.5 ppm	BTEX = ND	TPH = 21 ppm
East Wall 5-pt (2'-7")	OVM = 375 ppm	BTEX = ND	TPH = 15 ppm
West Wall 5-pt (2'-7")	OVM = 360 ppm	BTEX = ND	TPH = 59 ppm
Base 5-pt @ 8'	OVM = 2,320 ppm	BTEX = 7.58	TPH = 240 ppm

Google earth

100 ft

N



505-947-9900

**BP AMERICA PRODUCTION COMPANY**

**GOOCH 003**

**API 3004523476**

**LEASE NMSF080112**

**990 FNL 1850 FEL (B) SEC 32 T28N R8W**

**San Juan County**

**ELEV 6050**

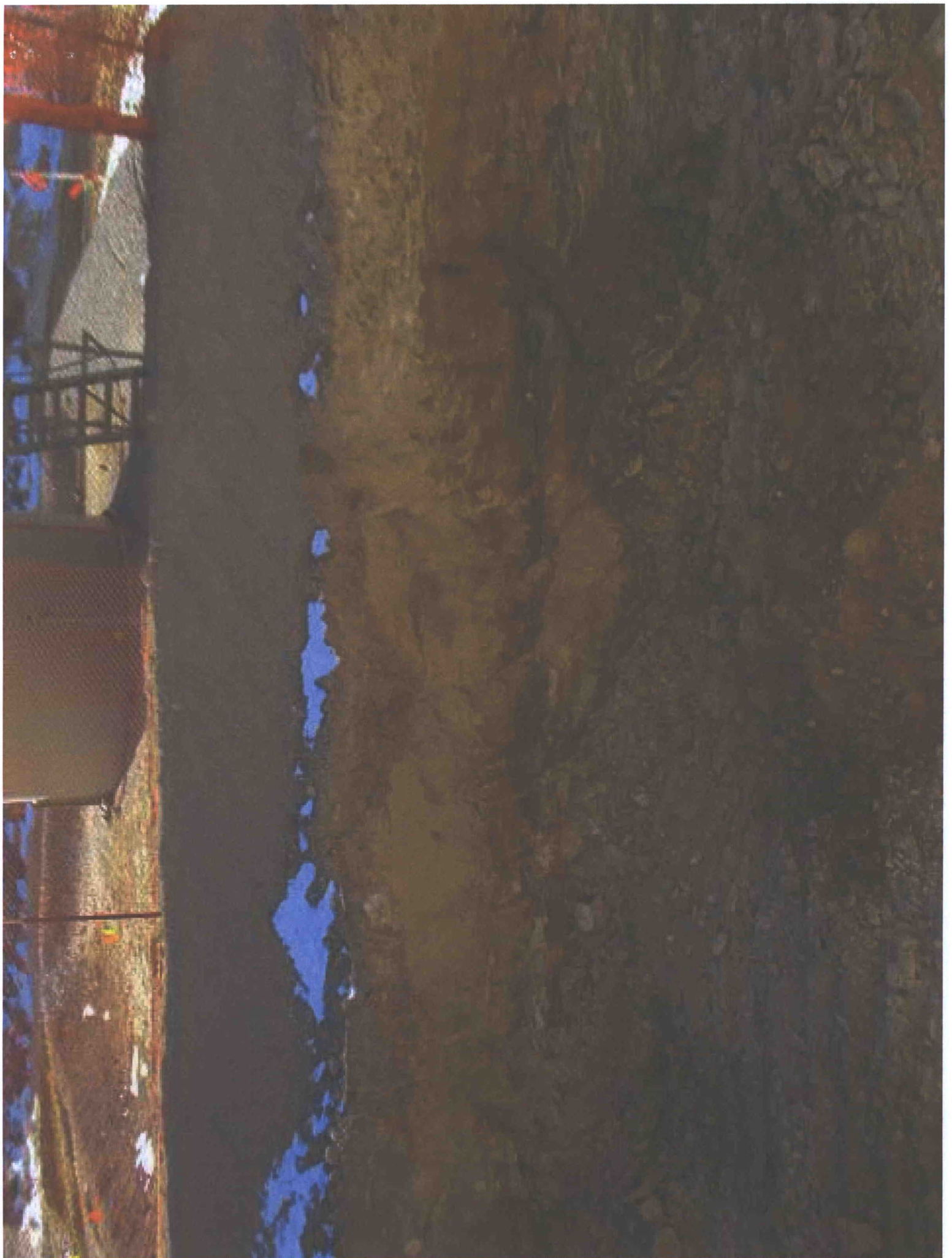
**°LAT 36° 37' 20.496"**

**LONG 107° 42' 41.904"**











*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)*

January 25, 2018

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

RE: GOOCH 3

OrderNo.: 1801A84

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 5 sample(s) on 1/24/2018 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,

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Client Sample ID: North Wall 5-pt (2'-7')  
 Project: GOOCH 3 Collection Date: 1/23/2018 1:05:00 PM  
 Lab ID: 1801A84-001 Matrix: SOIL Received Date: 1/24/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	ND	30		mg/Kg	20	1/24/2018 12:52:15 PM	36176
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	1/24/2018 11:16:08 AM	36164
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/24/2018 11:16:08 AM	36164
Surr: DNOP	88.6	70-130		%Rec	1	1/24/2018 11:16:08 AM	36164
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	1/24/2018 10:33:08 AM	36153
Surr: BFB	79.5	15-316		%Rec	1	1/24/2018 10:33:08 AM	36153
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.020		mg/Kg	1	1/24/2018 10:33:08 AM	36153
Toluene	ND	0.039		mg/Kg	1	1/24/2018 10:33:08 AM	36153
Ethylbenzene	ND	0.039		mg/Kg	1	1/24/2018 10:33:08 AM	36153
Xylenes, Total	ND	0.078		mg/Kg	1	1/24/2018 10:33:08 AM	36153
Surr: 4-Bromofluorobenzene	84.5	80-120		%Rec	1	1/24/2018 10:33:08 AM	36153

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 1801A84

Date Reported: 1/25/2018

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: South Wall 5-pt (2'-7')

Project: GOOCH 3

Collection Date: 1/23/2018 1:18:00 PM

Lab ID: 1801A84-002

Matrix: SOIL

Received Date: 1/24/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	ND	30		mg/Kg	20	1/24/2018 1:04:39 PM	36176
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	21	9.4		mg/Kg	1	1/24/2018 11:44:33 AM	36164
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/24/2018 11:44:33 AM	36164
Surr: DNOP	93.5	70-130		%Rec	1	1/24/2018 11:44:33 AM	36164
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	1/24/2018 10:56:47 AM	36153
Surr: BFB	84.3	15-316		%Rec	5	1/24/2018 10:56:47 AM	36153
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.091		mg/Kg	5	1/24/2018 10:56:47 AM	36153
Toluene	ND	0.18		mg/Kg	5	1/24/2018 10:56:47 AM	36153
Ethylbenzene	ND	0.18		mg/Kg	5	1/24/2018 10:56:47 AM	36153
Xylenes, Total	ND	0.36		mg/Kg	5	1/24/2018 10:56:47 AM	36153
Surr: 4-Bromofluorobenzene	92.4	80-120		%Rec	5	1/24/2018 10:56:47 AM	36153

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.

CLIENT: Blagg Engineering Client Sample ID: East Wall 5-pt (2'-7')  
 Project: GOOCH 3 Collection Date: 1/23/2018 1:27:00 PM  
 Lab ID: 1801A84-003 Matrix: SOIL Received Date: 1/24/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	ND	30		mg/Kg	20	1/24/2018 1:17:04 PM	36176
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	15	9.1		mg/Kg	1	1/24/2018 12:08:57 PM	36164
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/24/2018 12:08:57 PM	36164
Surr: DNOP	93.3	70-130		%Rec	1	1/24/2018 12:08:57 PM	36164
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	20		mg/Kg	5	1/24/2018 11:20:16 AM	36153
Surr: BFB	91.7	15-316		%Rec	5	1/24/2018 11:20:16 AM	36153
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.10		mg/Kg	5	1/24/2018 11:20:16 AM	36153
Toluene	ND	0.20		mg/Kg	5	1/24/2018 11:20:16 AM	36153
Ethylbenzene	ND	0.20		mg/Kg	5	1/24/2018 11:20:16 AM	36153
Xylenes, Total	ND	0.40		mg/Kg	5	1/24/2018 11:20:16 AM	36153
Surr: 4-Bromofluorobenzene	88.6	80-120		%Rec	5	1/24/2018 11:20:16 AM	36153

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 1801A84

Date Reported: 1/25/2018

CLIENT: Blagg Engineering

Client Sample ID: West Wall 5-pt (2'-7')

Project: GOOCH 3

Collection Date: 1/23/2018 1:34:00 PM

Lab ID: 1801A84-004

Matrix: SOIL

Received Date: 1/24/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	ND	30		mg/Kg	20	1/24/2018 1:29:28 PM	36176
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	59	9.8		mg/Kg	1	1/24/2018 12:33:31 PM	36164
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/24/2018 12:33:31 PM	36164
Surr: DNOP	92.3	70-130		%Rec	1	1/24/2018 12:33:31 PM	36164
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	21		mg/Kg	5	1/24/2018 11:43:59 AM	36153
Surr: BFB	96.5	15-316		%Rec	5	1/24/2018 11:43:59 AM	36153
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.10		mg/Kg	5	1/24/2018 11:43:59 AM	36153
Toluene	ND	0.21		mg/Kg	5	1/24/2018 11:43:59 AM	36153
Ethylbenzene	ND	0.21		mg/Kg	5	1/24/2018 11:43:59 AM	36153
Xylenes, Total	ND	0.41		mg/Kg	5	1/24/2018 11:43:59 AM	36153
Surr: 4-Bromofluorobenzene	88.2	80-120		%Rec	5	1/24/2018 11:43:59 AM	36153

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 1801A84

Date Reported: 1/25/2018

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: Base 5-pt @ 8'

Project: GOOCH 3

Collection Date: 1/23/2018 1:22:00 PM

Lab ID: 1801A84-005

Matrix: SOIL

Received Date: 1/24/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CJS
Chloride	ND	30		mg/Kg	20	1/24/2018 1:41:52 PM	36176
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	130	9.7		mg/Kg	1	1/24/2018 12:58:09 PM	36164
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/24/2018 12:58:09 PM	36164
Surr: DNOP	96.7	70-130		%Rec	1	1/24/2018 12:58:09 PM	36164
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	110	21		mg/Kg	5	1/24/2018 10:09:50 AM	36153
Surr: BFB	153	15-316		%Rec	5	1/24/2018 10:09:50 AM	36153
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.11		mg/Kg	5	1/24/2018 10:09:50 AM	36153
Toluene	1.0	0.21		mg/Kg	5	1/24/2018 10:09:50 AM	36153
Ethylbenzene	0.48	0.21		mg/Kg	5	1/24/2018 10:09:50 AM	36153
Xylenes, Total	6.1	0.42		mg/Kg	5	1/24/2018 10:09:50 AM	36153
Surr: 4-Bromofluorobenzene	96.4	80-120		%Rec	5	1/24/2018 10:09:50 AM	36153

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1801A84

25-Jan-18

Client: Blagg Engineering

Project: GOOCH 3

Sample ID	MB-36176	SampType: mblk			TestCode: EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID: 36176			RunNo: 48666					
Prep Date:	1/24/2018	Analysis Date: 1/24/2018			SeqNo: 1566124		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-36176	SampType: Ics			TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID: 36176			RunNo: 48666					
Prep Date:	1/24/2018	Analysis Date: 1/24/2018			SeqNo: 1566125		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.6	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#: 1801A84

25-Jan-18

Client: Blagg Engineering

Project: GOOCH 3

Sample ID	LCS-36164		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 36164		RunNo: 48655					
Prep Date:	1/24/2018		Analysis Date: 1/24/2018		SeqNo: 1564983		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	90.3	70	130			
Surr: DNOP	4.0		5.000		80.0	70	130			

Sample ID	MB-36164	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 36164			RunNo: 48655					
Prep Date:	1/24/2018	Analysis Date: 1/24/2018			SeqNo: 1564984		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		84.8	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#: 1801A84

25-Jan-18

Client: Blagg Engineering

Project: GOOCH 3

Sample ID	MB-36153	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID: 36153			RunNo: 48660					
Prep Date:	1/23/2018	Analysis Date: 1/24/2018			SeqNo: 1565710		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	830		1000		83.3	15	316			

Sample ID	LCS-36153		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 36153		RunNo: 48660					
Prep Date:	1/23/2018		Analysis Date: 1/24/2018		SeqNo: 1565711		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.9	75.9	131			
Surr: BFB	890		1000		89.1	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#: 1801A84

25-Jan-18

Client: Blagg Engineering

Project: GOOCH 3

Sample ID	<b>MB-36153</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>PBS</b>		Batch ID:	<b>36153</b>		RunNo:	<b>48660</b>			
Prep Date:	<b>1/23/2018</b>		Analysis Date:	<b>1/24/2018</b>		SeqNo:	<b>1565725</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	0.92		1.000		92.4	80	120			

Sample ID	<b>LCS-36153</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>LCSS</b>		Batch ID:	<b>36153</b>		RunNo:	<b>48660</b>			
Prep Date:	<b>1/23/2018</b>		Analysis Date:	<b>1/24/2018</b>		SeqNo:	<b>1565726</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	90.2	77.3	128			
Toluene	0.91	0.050	1.000	0	90.8	79.2	125			
Ethylbenzene	0.89	0.050	1.000	0	89.5	80.7	127			
Xylenes, Total	2.7	0.10	3.000	0	91.2	81.6	129			
Surr: 4-Bromofluorobenzene	0.89		1.000		88.8	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: 1801A84

RcptNo: 1

Received By: Anne Thorne 1/24/2018 7:00:00 AM

*Anne Thorne*

Completed By: Anne Thorne 1/24/2018 7:16:36 AM

*Anne Thorne*

Reviewed By: JMO 1/24/18

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐  
2. How was the sample delivered? Courier

### Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐  
4. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐  
5. Sample(s) in proper container(s)? Yes ☒ No ☐  
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐  
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐  
9. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒  
10. Were any sample containers received broken? Yes ☐ No ☒  
11. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐  
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
13. Is it clear what analyses were requested? Yes ☒ No ☐  
14. 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)

15. 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:			

16. Additional remarks:

### 17. Cooler Information

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



