

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

JAN 09 2017

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: Hughes LS 020	Facility Type: Natural gas well

Surface Owner: Federal	Mineral Owner: Federal	API No. 3004521038
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LOCATION OF RELEASE

Unit Letter E	Section 21	Township 29N	Range 08W	Feet from the 1,650	North/South Line North	Feet from the 850	East/West Line West	County: San Juan
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Latitude 36.71371° Longitude -107.68674°

NATURE OF RELEASE

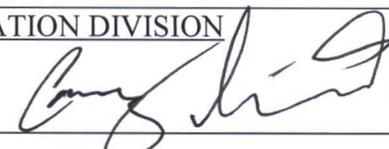
Type of Release: produced water, hydrocarbons	Volume of Release: unknown	Volume Recovered: N/A
Source of Release: below grade tank - 21 bbl	Date and Hour of Occurrence: none	Date and Hour of Discovery: October 20, 2016
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* Sampling of the soil beneath the BGT was done during removal. Sampling results indicate a release had occurred. The release was remediated via excavation, meeting the spill and release guidelines. Field reports and laboratory results are attached.

Describe Area Affected and Cleanup Action Taken.* The area of impacts was excavated and sampled with results below the spill and release guidelines. Attached is a field report and sample results verifying the area of impacts were fully delineated.

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: 	<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Steve Moskal	Approved by Environmental Specialist: 	
Title: Field Environmental Coordinator	Approval Date: <u>1/23/17</u>	Expiration Date:
E-mail Address: steven.moskal@bp.com	Conditions of Approval: <u>—</u>	Attached <input type="checkbox"/>
Date: January 5, 2017	Phone: 505-326-9497	

* Attach Additional Sheets If Necessary

NC 17023 394 70

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CLIENT: **BP**

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

API #: **3004521038**
TANK ID (if applicable): **A**

FIELD REPORT:

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

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

SITE INFORMATION:

SITE NAME: **HUGHES LS # 20**

DATE STARTED: **10/20/16**

QUAD/UNIT: **E** SEC: **21** TWP: **29N** RNG: **8W** PM: **NM** CNTY: **SJ** ST: **NM**

DATE FINISHED:

1/4 - 1/4 FOOTAGE: **1.650'N / 850'W** **SW/NW** LEASE TYPE: **FEDERAL** / STATE / FEE / INDIAN

ENVIRONMENTAL SPECIALIST(S): **NJV**

LEASE #: **SF078046** PROD. FORMATION: **PC** CONTRACTOR: **BP - J. GONZALES**

REFERENCE POINT:

WELL HEAD (W.H.) GPS COORD.: **36.71378 X 107.68679** GL ELEV.: **6,450'**

- 1) **21 BGT (SW/DB)** GPS COORD.: **36.71371 X 107.68674** DISTANCE/BEARING FROM W.H.: **22', S37.5E**
- 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**

OVM READING (ppm)

- 1) SAMPLE ID: **1 @ 7' (21)** SAMPLE DATE: **10/20/16** SAMPLE TIME: **0920** LAB ANALYSIS: **NA** OVM READING: **431**
- 2) SAMPLE ID: **ALSO SEE SITE SKETCH BELOW** SAMPLE DATE: SAMPLE TIME: LAB ANALYSIS:
- 3) SAMPLE ID: SAMPLE DATE: SAMPLE TIME: LAB ANALYSIS:
- 4) SAMPLE ID: SAMPLE DATE: SAMPLE TIME: LAB ANALYSIS:

SOIL DESCRIPTION:

SOIL TYPE: **SAND** / SILTY SAND / SILT / SILTY CLAY / CLAY / GRAVEL / OTHER: **BEDROCK (SANDSTONE) 3 - 7 FT. BELOW GRADE.**

SOIL COLOR: **MOSTLY GRAYISH ORANGE**
 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 - **PHYSICALLY FROM DISCOLORED SOILS/BEDROCK.**
 MOISTURE: DRY / **SLIGHTLY MOIST** / MOIST / WET / SATURATED / SUPER SATURATED
 ANY AREAS DISPLAYING WETNESS: YES / NO EXPLANATION - **FROM HYDROVACING BGT.**
 SAMPLE TYPE: GRAB / **COMPOSITE** - # OF PTS. **5**
 DISCOLORATION/STAINING OBSERVED: YES / NO EXPLANATION - **VARYING SHADES OF GRAY TO BLACK MOSTLY WITHIN BEDROCK (SANDSTONE)**

SITE OBSERVATIONS:

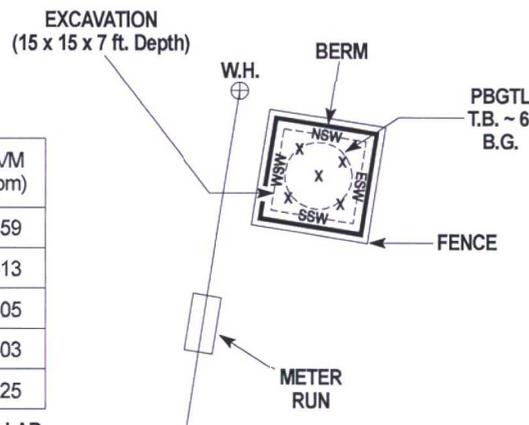
LOST INTEGRITY OF EQUIPMENT: YES **NO** EXPLANATION -

APPARENT EVIDENCE OF A RELEASE OBSERVED AND/OR OCCURRED: YES / NO EXPLANATION: **SOIL/BEDROCK DISCOLORATION WITH APPARENT HYDROCARBON ODOR.**
 EQUIPMENT SET OVER RECLAIMED AREA: YES **NO** EXPLANATION -
 OTHER: **NMOC D REP. PRESENT DURING SAMPLE COLLECTION. COLLECTED CONFIRMATION SAMPLE INITIALLY, THEN PROCEEDED TO CONDUCT ASSESSMENT / REMEDIATION SIMOPS.**
 SOIL IMPACT DIMENSION ESTIMATION: **NA** ft. X **NA** ft. X **NA** ft. EXCAVATION ESTIMATION (Cubic Yards): **NA**
 DEPTH TO GROUNDWATER: **>100'** NEAREST WATER SOURCE: **>1,000'** NEAREST SURFACE WATER: **<1,000'** NMOC D TPH CLOSURE STD: **1,000** ppm

SITE SKETCH

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

OVM CALIB. READ. = **52.6** ppm RF=0.52
 OVM CALIB. GAS = **100.0** ppm
 TIME: **9:30** (am/pm) DATE: **10/20/16**



Sample ID	Date	Time	OVM (ppm)
3PC - NSW @ 3'-6'	10/20/16	1113	359
3PC - ESW @ 3'-6'	10/20/16	1115	413
3PC - SSW @ 3'-6'	10/20/16	1117	305
3PC - WSW @ 4'-6'	10/20/16	1118	603
5PC - EB @ 7'	10/20/16	1121	225

ALL SAMPLES LISTED ABOVE SUBMITTED TO LAB FOR BTEX (8021B), TPH (8015B), CHLORIDE (300.0).

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.

MISCELL. NOTES

WO:
 REF #: **P - 738**
 VID: **VDRINKWJA1**
 PJ #:
 Permit date(s): **06/09/10**
 OCD Appr. date(s): **07/08/16**
 Tank ID: OVM = Organic Vapor Meter ppm = parts per million
B BGT Sidewalls Visible: Y / **(N)**
 BGT Sidewalls Visible: Y / N
 BGT Sidewalls Visible: Y / N
 Magnetic declination: **10° E**

NOTES: **GOOGLE EARTH IMAGERY DATE: 3/15/2015.** ONSITE: **09/01/16**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 3PC-NSW @ 3'-6' (21)

Project: Hughes LS 20

Collection Date: 10/20/2016 11:13:00 AM

Lab ID: 1610A35-001

Matrix: MEOH (SOIL)

Received Date: 10/21/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	10/21/2016 11:52:50 AM	28232
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	10/21/2016 9:58:11 AM	28209
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/21/2016 9:58:11 AM	28209
Surr: DNOP	91.5	70-130		%Rec	1	10/21/2016 9:58:11 AM	28209
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	19	7.4		mg/Kg	2	10/21/2016 12:01:07 PM	28196
Surr: BFB	120	68.3-144		%Rec	2	10/21/2016 12:01:07 PM	28196
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.037		mg/Kg	2	10/21/2016 12:01:07 PM	28196
Toluene	ND	0.074		mg/Kg	2	10/21/2016 12:01:07 PM	28196
Ethylbenzene	ND	0.074		mg/Kg	2	10/21/2016 12:01:07 PM	28196
Xylenes, Total	0.75	0.15		mg/Kg	2	10/21/2016 12:01:07 PM	28196
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	2	10/21/2016 12:01:07 PM	28196

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
R	RPD outside accepted recovery limits	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 1610A35

Date Reported: 10/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 3PC-ESW @ 3'-6' (21)

Project: Hughes LS 20

Collection Date: 10/20/2016 11:15:00 AM

Lab ID: 1610A35-002

Matrix: MEOH (SOIL)

Received Date: 10/21/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	10/21/2016 12:05:15 PM	28232
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	16	10		mg/Kg	1	10/21/2016 10:20:51 AM	28209
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/21/2016 10:20:51 AM	28209
Surr: DNOP	92.8	70-130		%Rec	1	10/21/2016 10:20:51 AM	28209
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	44	17		mg/Kg	5	10/21/2016 10:50:29 AM	28196
Surr: BFB	118	68.3-144		%Rec	5	10/21/2016 10:50:29 AM	28196
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.087		mg/Kg	5	10/21/2016 10:50:29 AM	28196
Toluene	ND	0.17		mg/Kg	5	10/21/2016 10:50:29 AM	28196
Ethylbenzene	ND	0.17		mg/Kg	5	10/21/2016 10:50:29 AM	28196
Xylenes, Total	1.7	0.35		mg/Kg	5	10/21/2016 10:50:29 AM	28196
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	5	10/21/2016 10:50:29 AM	28196

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
R	RPD outside accepted recovery limits	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 1610A35

Date Reported: 10/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 3PC-SSW @ 3'-6' (21)

Project: Hughes LS 20

Collection Date: 10/20/2016 11:17:00 AM

Lab ID: 1610A35-003

Matrix: MEOH (SOIL)

Received Date: 10/21/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	10/21/2016 12:42:28 PM	28232
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	13	9.4		mg/Kg	1	10/21/2016 10:43:29 AM	28209
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/21/2016 10:43:29 AM	28209
Surr: DNOP	95.8	70-130		%Rec	1	10/21/2016 10:43:29 AM	28209
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	21	21		mg/Kg	5	10/21/2016 11:14:02 AM	28196
Surr: BFB	99.3	68.3-144		%Rec	5	10/21/2016 11:14:02 AM	28196
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.10		mg/Kg	5	10/21/2016 11:14:02 AM	28196
Toluene	ND	0.21		mg/Kg	5	10/21/2016 11:14:02 AM	28196
Ethylbenzene	ND	0.21		mg/Kg	5	10/21/2016 11:14:02 AM	28196
Xylenes, Total	0.69	0.41		mg/Kg	5	10/21/2016 11:14:02 AM	28196
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	5	10/21/2016 11:14:02 AM	28196

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
	R RPD outside accepted recovery limits	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 1610A35

Date Reported: 10/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: 3PC-WSW @ 4'-6' (21)

Project: Hughes LS 20

Collection Date: 10/20/2016 11:18:00 AM

Lab ID: 1610A35-004

Matrix: MEOH (SOIL)

Received Date: 10/21/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	10/21/2016 12:54:52 PM	28232
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	35	9.9		mg/Kg	1	10/21/2016 11:06:18 AM	28209
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/21/2016 11:06:18 AM	28209
Surr: DNOP	93.4	70-130		%Rec	1	10/21/2016 11:06:18 AM	28209
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	21	19		mg/Kg	5	10/21/2016 10:08:04 AM	G38127
Surr: BFB	120	68.3-144		%Rec	5	10/21/2016 10:08:04 AM	G38127
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.093		mg/Kg	5	10/21/2016 10:08:04 AM	B38127
Toluene	ND	0.19		mg/Kg	5	10/21/2016 10:08:04 AM	B38127
Ethylbenzene	ND	0.19		mg/Kg	5	10/21/2016 10:08:04 AM	B38127
Xylenes, Total	0.51	0.37		mg/Kg	5	10/21/2016 10:08:04 AM	B38127
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	5	10/21/2016 10:08:04 AM	B38127

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
	R RPD outside accepted recovery limits	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: 5PC-EB @ 7' (21)

Project: Hughes LS 20

Collection Date: 10/20/2016 11:21:00 AM

Lab ID: 1610A35-005

Matrix: MEOH (SOIL)

Received Date: 10/21/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	10/21/2016 1:07:16 PM	28232
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	10/21/2016 11:29:08 AM	28209
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/21/2016 11:29:08 AM	28209
Surr: DNOP	88.4	70-130		%Rec	1	10/21/2016 11:29:08 AM	28209
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	8.0		mg/Kg	2	10/21/2016 10:32:27 AM	G38127
Surr: BFB	98.9	68.3-144		%Rec	2	10/21/2016 10:32:27 AM	G38127
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.040		mg/Kg	2	10/21/2016 10:32:27 AM	B38127
Toluene	ND	0.080		mg/Kg	2	10/21/2016 10:32:27 AM	B38127
Ethylbenzene	ND	0.080		mg/Kg	2	10/21/2016 10:32:27 AM	B38127
Xylenes, Total	ND	0.16		mg/Kg	2	10/21/2016 10:32:27 AM	B38127
Surr: 4-Bromofluorobenzene	112	80-120		%Rec	2	10/21/2016 10:32:27 AM	B38127

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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Chain-of-Custody Record

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

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

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

email or Fax#:

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

Accreditation:
 NELAP Other _____
 EDD (Type) _____

Turn-Around Time: **SAME DAY**

Standard Rush

Project Name: **HUGHES LS # 20**

Project #:

Project Manager: **NELSON VELEZ**

Sampler: **NELSON VELEZ** *NV*

On Site: Yes No

Sample Temperature: *1-1*



HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TPH's (802.1B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)	Grab sample	# pt. composite sample	Air Bubbles (Y or N)	
10/20/16	1113	SOIL	3PC - NSW @ 3' - 6' (21)	4 oz. - 1	Cool	1610A35 -001	✓	✓										✓			3	
10/20/16	1115	SOIL	3PC - ESW @ 3' - 6' (21)	4 oz. - 1	Cool	-002	✓	✓										✓			3	
10/20/16	1117	SOIL	3PC - SSW @ 3' - 6' (21)	4 oz. - 1	Cool	-003	✓	✓										✓			3	
10/20/16	1118	SOIL	3PC - WSW @ 4' - 6' (21)	4 oz. - 1	Cool	-004	✓	✓										✓			3	
10/20/16	1121	SOIL	5PC - EB @ 7' (21)	4 oz. - 1	Cool	-005	✓	✓										✓			5	

Date: *10/20/16* Time: *1404* Relinquished by: *[Signature]* Received by: *[Signature]* Date: *10/20/16* Time: *1404* Remarks: **BILL DIRECTLY TO BP USING THE CIRCLED CONTACT WITH CORRESPONDING VID & REFERENCE # WHEN APPLICABLE:**

Date: *10/20/16* Time: *2048* Relinquished by: *[Signature]* Received by: *[Signature]* Date: *10/21/16* Time: *0815*

VID: **VHXONEVB2** **Steve Moskal** **Steve Moskal**
VDRINKWJA1 **VMS06HQFEC**

Reference # **P - 738**

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#: 1610A35
 25-Oct-16

Client: Blagg Engineering
Project: Hughes LS 20

Sample ID MB-28232	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBS	Batch ID: 28232		RunNo: 38151							
Prep Date: 10/21/2016	Analysis Date: 10/21/2016		SeqNo: 1190570	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID LCS-28232	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSS	Batch ID: 28232		RunNo: 38151							
Prep Date: 10/21/2016	Analysis Date: 10/21/2016		SeqNo: 1190571	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.3	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
- R RPD outside accepted recovery limits
- 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#: 1610A35

25-Oct-16

Client: Blagg Engineering

Project: Hughes LS 20

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	G38127	RunNo:	38127					
Prep Date:		Analysis Date:	10/21/2016	SeqNo:	1190255	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	940		1000		93.7	68.3	144			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G38127	RunNo:	38127					
Prep Date:		Analysis Date:	10/21/2016	SeqNo:	1190256	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	98.0	74.6	123			
Surr: BFB	920		1000		92.5	68.3	144			

Sample ID	MB-28196	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	28196	RunNo:	38126					
Prep Date:	10/20/2016	Analysis Date:	10/21/2016	SeqNo:	1190268	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	850		1000		85.1	68.3	144			

Sample ID	LCS-28196	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	28196	RunNo:	38126					
Prep Date:	10/20/2016	Analysis Date:	10/21/2016	SeqNo:	1190269	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	110	74.6	123			
Surr: BFB	920		1000		91.6	68.3	144			

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1610A35

25-Oct-16

Client: Blagg Engineering
Project: Hughes LS 20

Sample ID 5ML RB	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: B38127		RunNo: 38127							
Prep Date:	Analysis Date: 10/21/2016		SeqNo: 1190261		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		115	80	120			

Sample ID 100NG BTEX LCS	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: B38127		RunNo: 38127							
Prep Date:	Analysis Date: 10/21/2016		SeqNo: 1190262		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	92.9	75.2	115			
Toluene	0.95	0.050	1.000	0	94.8	80.7	112			
Ethylbenzene	0.92	0.050	1.000	0	92.2	78.9	117			
Xylenes, Total	3.0	0.10	3.000	0	99.7	79.2	115			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID MB-28196	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 28196		RunNo: 38126							
Prep Date: 10/20/2016	Analysis Date: 10/21/2016		SeqNo: 1190293		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	0.98		1.000		98.1	80	120			

Sample ID LCS-28196	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 28196		RunNo: 38126							
Prep Date: 10/20/2016	Analysis Date: 10/21/2016		SeqNo: 1190294		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.77	0.025	1.000	0	76.6	75.2	115			
Toluene	0.88	0.050	1.000	0	87.7	80.7	112			
Ethylbenzene	0.97	0.050	1.000	0	96.6	78.9	117			
Xylenes, Total	2.9	0.10	3.000	0	95.5	79.2	115			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Qualifiers:

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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: **1610A35** RcptNo: **1**

Received by/date: RC 10/21/16

Logged By: **Ashley Gallegos** 10/21/2016 8:15:00 AM *AG*

Completed By: **Ashley Gallegos** 10/21/2016 8:33:26 AM *AG*

Reviewed By: AS 10/21/16

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	1.1	Good	Not Present			