State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 OIL CONS. DIV DIST. 3

Form C-141 Revised August 8, 2011

Show 10 Capito appropriate District Office in accordance with 19.15.29 NMAC.

Release Notific	ation	and Co	orrective A	ction							
	OPI	ERATOR			Subsequer	nt Report		Final Repo			
Name of Company: BP		Contact: Steve Moskal									
Address: 200 Energy Court, Farmington, NM 87401		Telephone No.: 505-326-9497									
Facility Name: Mudge A 002		Facility Typ	e: Natural gas v	well							
Surface Owner: Federal Mineral O	wner: I	Federal			API No	. 30045109	948				
LOCA	TION	OF REI	LEASE								
Unit LetterSectionTownshipRangeFeet from theA1031N11W660	North/ North	South Line	Feet from the 660	East/W East	Vest Line	County: Sa	an Juan				
Latitude36.918505°		Longitude	-107.972206	0		_					
NAT	URE	OF RELI	EASE								
Type of Release: Unknown - hydrocarbon		Volume of	Release: unknow	vn	Volume F	Recovered: n	one	4			
Source of Release: Unknown – suspect earthen pit; 95 bbl BG1		Date and H unknown	lour of Occurrenc	ce:	Date and 2017	Hour of Dis	covery:	April 25,			
Was Immediate Notice Given?	quired	If YES, To	Whom?								
By Whom? Steve Moskal		Date and H	lour:								
Was a Watercourse Reached?		If YES, Vo	lume Impacting t	the Wate	rcourse.						
If a Watercourse was Impacted, Describe Fully.*											
Describe Cause of Problem and Remedial Action Taken.* During impacts to the soil, likely associated with an earthen pit. Describe Area Affected and Cleanup Action Taken.* BP partially and scope of work, BP elects to further delineate the impacts to de excavation data packet.	the clos remedia termine	ure of a below ted hydrocar future correc	w grade tank sam bon impacted soil tive action. Attac	pling inc ls at the ched is th	licated what location via he propose	at appears to a excavation d delineation	be hyd . Due t 1 plan a	rocarbon to the size nd			
I hereby certify that the information given above is true and compl regulations all operators are required to report and/or file certain re public health or the environment. The acceptance of a C-141 repor should their operations have failed to adequately investigate and re or the environment. In addition, NMOCD acceptance of a C-141 r federal, state, or local laws and/or regulations.	lete to the elease no rt by the emediate report do	the best of my otifications are NMOCD ma contaminations not reliev	knowledge and u nd perform correc arked as "Final R on that pose a thr e the operator of	inderstan etive acti eport" d eat to gr responsi	nd that purs ons for rele oes not reli ound water bility for c	suant to NM(eases which ieve the oper r, surface wa ompliance w	OCD ru may en rator of ter, hur vith any	iles and danger liability nan health other			
Signature: Mars Muc			<u>OIL CON</u>	SERV	ATION		<u>DN</u>				
Printed Name: Steve Moskal	1	Approved by	Environmental S	pecialist	bre	yu	7				
Title: Field Environmental Coordinator	1	Approval Dat			Expiration	Date:					
E-mail Address: steven.moskal@bp.com	(Conditions of	Approval:			Attached					
Date: July 18, 2017 Phone: 505-326-9497		_	-	4							
Attach Additional Sheets II Necessary		NYT	01434 84 01L CO	NS. D	IV DIST.	3					

JUL 2 0 2017

BP Remediation Management Plan

To:	Cory Smith & Vanessa Fields (NMOCD)
From:	Steve Moskal (BP)
CC:	Jeff Blagg (Blagg Engineering)
Date:	3/21/2017
Re:	Mudge A 002 – Delineation Plan API#30-045-10948 (A) S10, T31N, R11W

Dear Mr. Smith, Mrs. Fields,

The Mudge A 002 site is an active natural gas production pad within the San Juan Basin Gas Field in San Juan County, New Mexico. The site is located on land controlled by the Bureau of Land Management drilled by Delhi Oil Corporation in 1950. The ownership of the well has changed several times since it was drilled. The well pad is located in an area primarily used by oil and gas production but also for recreational and livestock grazing. Depth to groundwater is unknown at this time.

BACKGROUND

Discharge of natural gas liquids from production and process equipment into an earthen pit was highly likely and acceptable industry practice prior to the implementation of the pit rule. During closure of a below grade tank on April 25, 2017, soil impacts were identified. Remediation via soil shredding commenced on May 18, 2017, however due to soil conditions, soil shredding was not a viable remedial solution. The alternative of a dig and haul ensued. Due to the depth, size, nearby pipeline and biological restrictions, BP elected to terminate the excavation activities near the south and east edges of the pad. The excavated area was backfilled, with the western half of the excavated area meeting the NMOCD spill and release guidelines for closure. The east portion of the excavation remains to be delineated.

The remedial excavation measured approximately 58x44' with a total depth of 42' below wellhead surface. The overall excavation, required for proper sloping per engineered design, measured 100x85'. The outer extents of the excavation were limited by identified Brack's Cactus suitable habitat areas to the west, south and east, as well as an Enterprise pipeline, servicing wells operated by others, to the east. The attached data packet provides a field report, figures and laboratory data for reference.

DELINEATION PLAN

BP proposes to advance 5 soil boring to determine the vertical and lateral extents of the remaining contamination. Total depth is not known at this time, but is expected to be approximately 50' below ground surface. If vertical extent of the contamination is identified, a single boring will be advanced ten feet beyond the lower reaches of the identified impacts.

The borings will be advanced using a minimum 4" (ID) hollow stem auger or comparable tooling. In each boring, 2-inch PVC well screen will be placed in the lower portion of each soil boring, approximately 15 feet long, with an attached riser to just above the surface. Sand pack will be added to the boring annulus to 1' above the screened interval. Hydrated bentonite will be placed in the remainder of the boring to 1' bgs where cement will be used to seal the surface completion and install a well protector. The well protectors will be lockable. The wells will be permitted through the New Mexico Office of the State Engineer Aztec Office.

During advancement of the well borings, soil samples will be collected for confirmation. A soil samples will be collected every 5' or more frequent if possible. The soil samples will be field screened using a Page | 1

calibrated photoionization detector via an approved field headspace method. A minimum of two soil samples will be submitted for laboratory analysis, following handling and chain of custody protocols, for analysis of EPA Methods 8015 TPH (GRO, DRO and MRO), 8021 BTEX and 6010 chlorides. The soil samples with the highest PID from each boring along with the soil sample base of the boring or at the groundwater interface will be submitted for analysis. The upper 20 feet or so of soil is not impacted by the pit and will be thin spread on site. The contaminated soil will be collected and containerized for offsite disposal.

Once the well installation is complete and allowed to sit for a minimum of 24 hours, the wells will be monitored for water. If no water is present, the wells will then be rechecked in approximately 2 weeks. If water is present, the wells will be developed via a bailing and purging with a new, disposable bailer used in each well. The wells will be purged for a minimum of 3 well volumes and where field screening for temperature, conductivity and pH become stable for a minimum of three consecutive readings (within 10%) The purged water will be contained and disposed of in the nearby below grade tank.

The wells will then be allowed to sit for approximately 24 hours then purged of approximately three well volumes prior to sampling for EPA Method 8260 VOCs and General Water Chemistry via API General Chemistry methods (including pH, TDS, cations/anions), all following sample handling and chain of custody protocols.

Reporting

Once laboratory results are received for soil and groundwater samples, BP will furnish a report to the NMOCD detailing drilling activities, well construction, laboratory results and groundwater gradient data based on local survey information. All these activities will be performed by a third party contractor. The report will be delivered to the NMOCD within 60 days of the final laboratory report.

Regards,

alon Muy

Steve Moskal BP America Production Co.

BP America Mudge A 2 (A) Sec 10 – T31N – R11W San Juan County, New Mexico API: 30-045-10948

Summary Record of Impact Remediation

<u>April 25, 2017</u> Soils impacted with hydrocarbons encountered during removal of a 95 barrel BGT. Initial laboratory analysis of a composite sample of soil collected immediately below the tank (6' below grade) tested total TPH at 3,794 mg/Kg.

Site Closure Standard Determined at 100 ppm TPH based on:

Depth to Groundwater based on BGT permit research < 50 feet (10 points) Distance to water well > 1,000' based on BGT permit research (0 points) Distance to dry wash < 200' based on site measurements (10 points)

Total Site Ranking: 20

May 18, 2017 Begin site remediation via excavation at 95 BGT center.

May 19, 2017 Conduct un-witnessed sampling of excavation base at 20' below original wellpad grade to ascertain residual impacts. Excavation size approximately 25' x 25' x 20' deep

May 24, 2017 Conduct witnessed sampling of north, west and southeast sidewalls for closure. Excavation approximately 20' deep.

May 30, 2017 Conduct witnessed sampling of east and south sidewalls for closure. Excavation approximately 25' deep.

June 9, 2017 Conduct witnessed sampling of south and west sidewalls, west base for closure. Excavation approximately 38' deep.

June 12, 2012 Conduct sampling of northeast base and north sidewall for closure. Final base of excavation approximately 58' x 44' x 38' deep (from original wellpad surface grade). Surface disturbance to accommodate sloped excavation approximately 100' x 85'.

Sample ID	Date	TPH Total (mg/Kg)	BTEX Total (mg/Kg)	Benzene (mg/Kg)	Comments
1 – North Wall (8-pt. comp) (6'-19')	5/24/2017	ND	ND	ND	
2 – West Wall (8- pt. comp) (6'-19')	5/24/2017	ND	ND	ND	
3 – SE Corner (3-pt. comp) (10'-16')	5/24/2017	2,655	169.8	3.7	Impacted soils, subsequently excavated.
4 – East Wall, South (5-pt. comp)(12'-25')	5/30/2017	230	4.1	ND	Subsequently excavated.
5 – South Wall, East (5-pt. comp)(12'-25')	5/30/2017	11	ND	ND	
6 – South Wall, West (5-pt. comp)(12'-25')	5/30/2017	590	26.8	ND	Subsequently excavated.
7 – Grab Sample, South Extent, @-40'	6/2/2017	ND	ND	ND	
8 – Grab Sample, SE Extent, @-42'	6/5/2017	4,310	468	11	Informational Sample. Impacts remain in place.
9 – West Wall (5- pt. comp) (26'-36')	6/9/2017	32	0.26	0.043	
10 – West Base (5-pt. comp @ -38')	6/9/2017	29	0.53	0.041	
11 – South Wall (5- pt. comp) (26'-36')	6/9/2017	18	ND	ND	
12 – NE Base (5-pt. comp @ -37')	6/12/2017	354	19.95	0.19	
13 – North Wall (5- pt. comp) (26'-36')	6/12/2017	20	ND	ND	
NMOCD/BLM Closure Standard		100	50	10	

Summary laboratory data from site sampling:

June 16, 2017 Complete backfilling of excavation.



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Appendix A. Survey Map



BP – Mudge A 002 Soil Remediation Project Brack's Cactus and Aztec Gilia Survey Report

BP	BLAGG ENGINEERING, INC.	API # 3004510948
	(505) 632-1199	TANK ID (if applicble):
FIELD REPORT:	(circle one): BGT CONFIRMATION RELEASE INVESTIGATION / OTHER:	PAGE #: of
SITE INFORMATION	I: SITE NAME: MUDGE A #Z	DATE STARTED: 64/25/17
QUAD/UNIT: A SEC: 10 TWP:	31 N RNG: 11 W PM: NM CNTY: SJ ST: NM	DATE FINISHED:
1/4-1/4/FOOTAGE: 660',1 660	E DE LEASE TYPE: (FEDERAL) STATE / FEE / INDIAN	SPECIALIST(S): NJV) JCB
REFERENCE POINT		7267 CIER 5,9781
1) 95 BET (JW DB)	GPS COORD.: 36-918505× 107.972206 DISTANCEBE	ARING FROM W.H.: 127 52.55
2)	GPS COORD.: DISTANCE/BE	ARING FROM W.H.:
3)	GPS COORD.: DISTANCE/BE	ARING FROM W.H.:
4)	GPS COORD.: DISTANCE/BE	ARING FROM W.H.:
SAMPLING DATA:	CHAIN OF CUSTODY RECORD(S), # OR LAB USED: HAU	OVM READING (ppm)
1) SAMPLE ID: SPC-TBC	6 (95) SAMPLE DATE: 04 25/17 SAMPLE TIME: 1420 LAB ANALYSIS: 805	8 80218 (300.0(C1) 1,564
2) SAMPLE ID: TH1 C 13-1	4 (95) SAMPLE DATE: 04/25/17 SAMPLE TIME: 1932 LAB ANALYSIS:	1 " 397
3) SAMPLE ID:	SAMPLE DATE: SAMPLE TIME: LAB ANALYSIS:	
5) SAMPLE ID:		
SOIL DESCRIPTION	SOU TYPE SAND / STTY SAND / SUT / SUT / SUT / SUT AV CRAVEL / OTHER	
SOIL COLOR:		CHESTIE MENI M DI ASTIC THICHI Y DI ASTIC
COHESION (ALL OTHERS): MON COHESIVE SLIGHT	Y COHESIVE DOHESIVE / HIGHLY COHESIVE DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM	/STIFE VERY STIFF / HARD
CONSISTENCY (NON COHESIVE SOILS):	DOSE FIRM DENSE / VERY DENSE HC ODOR DETECTED: (ES) NO EXPLANATION - 57	RONG & A PRARENT
MOISTURE: DRY / SLIGHTLY MOIST MOIST MOIST	ET / SATURATED / SUPER SATURATED	
DISCOLORATION/STAINING OBSERVED	NO EXPLANATION - CRAKERAT / BUACK / LIGHT GRAY STRETING	NATION -
SITE OBSERVATION	IS LOST INTEGRITY OF EQUIPMENT: YES/NO EXPLANATION	E.N.
APPARENT EVIDENCE OF A RELEASE OBSERV	EDANDIOR COCURRED (YES) NO EXPLANATION: DISCOUPRED JOILS &	STRONG P.FFRRENT HC OUSA
EQUIPMENT SET OVER RECLAIMED AREA:	YES/NO EXPLANATION-	
TEST HOLE ADVANCES	C DET CENTER (TH1), MAX CEPTH WITH EX	TENCATIOE REACHER 14 DE
SOIL IMPACT DIMENSION ESTIMATION	t ft. X ft. IMPACTED SOIL E	STIMATION (Cubic Yards) :
DEPTH TO GROUNDWATER: < 50	NEAREST WATER SOURCE: 21,000 NEAREST SURFACE WATER: 2200 NMC	CD TPH CLOSURE STD: 160 ppm
SITE SKETCH	BGT Located : off (on) site PLOT PLAN circle: attached (W	M CALIB. READ. = 100 . C ppm RE=0.52
	TO LESSENDETHE A ON	M CALIB. GAS = 136 ppm
	The sound NI	E 2-35 amon DATE 04/25/17
	The wars	MISCELL, NOTES
		WO:
		REF. #: P-786
	- / / the wooders	ND: VHIXONEVEZ
STREE /	A A R.W.	PJ #:
CONTRIMET	BEUM	Permit date(s): 01/27/17
RING PROD. TRAK	PBETL. FENGE	OCD Appr. date(s): 02/03/17 ank OVM = Organic Vapor Meter
	T.B.~	BGT Sidewalls Visible: Y (N)
	S.G. X-SPD	BGT Sidewalls Visible: Y / N
NOTES: BGT = BELOW-GRADE TANK: E.D. = EXCAVAT	ON DEPRESSION; B.G. = BELOW GRADE; B = BELOW; T.H. = TEST HOLE ~= APPROX : W.H. = WELL HEAD: 1	BGT Sidewalls Visible: Y / N
T.B. = TANK BOTTOM; PBGTL = PREVIOUS BE APPLICABLE OR NOT AVAILABLE; SW-SING	LOW-GRADE TANK LOCATION; SPD = SAMPLE POINT DESIGNATION; R.W. = RETAINING WALL; NA- NOT E WALL; DW- DOUBLE WALL; SB - SINGLE BOTTOM; DB - DOUBLE BOTTOM.	Magnetic declination: 10° E
NOTES: GODGEE EARTH IN	MEERY DATE: 3/15/2013, ONSITE: 04/25/17	
Invised: 44 DC/42		DEMODEL & OKE

u. 11/4



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Hall Environmental Analys	sis Labora	tory, Inc.			Lab Order Date Repo	1704B34 rted: 4/27/201	7
CLIENT: Blagg Engineering Project: MUDGE A 2			Client Sampl Collection 1	e ID: 5P0 Date: 4/2	C-TB@6'(5/2017 2:2	95) 20:00 PM	
Lab ID: 1704B34-001	Matrix:	MEOH (SOIL)	Received I	Date: 4/2	6/2017 7:0	00:00 AM	
Analyses	Result	PQL Qua	al Units	DF	Date Ana	lyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	MRA
Chloride	ND	30	mg/Kg	20	4/26/2017	1:35:55 PM	31436
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S				Analyst:	том
Diesel Range Organics (DRO)	94	10	mg/Kg	1	4/26/2017	11:06:52 AM	31426
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	4/26/2017	11:06:52 AM	31426
Surr: DNOP	86.4	70-130	%Rec	1	4/26/2017	11:06:52 AM	31426
EPA METHOD 8015D: GASOLINE RA	NGE					Analyst:	NSB
Gasoline Range Organics (GRO)	3700	670	mg/Kg	200	4/26/2017	12:47:32 PM	31417
Surr: BFB	125	54-150	%Rec	200	4/26/2017	12:47:32 PM	31417
EPA METHOD 8021B: VOLATILES						Analyst:	NSB
Benzene	14	3.3	mg/Kg	200	4/26/2017	12:47:32 PM	31417
Toluene	10	6.7	mg/Kg	200	4/26/2017	12:47:32 PM	31417
Ethylbenzene	20	6.7	mg/Kg	200	4/26/2017	12:47:32 PM	31417
Xylenes, Total	230	13	mg/Kg	200	4/26/2017	12:47:32 PM	31417
Surr: 4-Bromofluorobenzene	111	66.6-132	%Rec	200	4/26/2017	12:47:32 PM	31417

Analytical Report

TPH = 3,794 mg/KgS & R Closure standard = 100 mg/KgBenzene = 14 mg/KgS & R Closure standard = 10 mg/KgTotal BTEX = 274 mg/KgS & R Closure standard = 50 mg/Kg

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 5
	ND	Not Detected at the Reporting Limit	Р	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 Analys	is Labora	tory, Inc.			Analytical Report Lab Order 1704B35 Date Reported: 4/27/201	17
CLIENT: Blagg Engineering			Client Sampl	e ID: TH	11@13'-14' (95)	
Project: MUDGE A 2			Collection 1	Date: 4/2	25/2017 2:32:00 PM	
Lab ID: 1704B35-001	Date: 4/2	:6/2017 7:00:00 AM				
Analyses	Result	PQL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	4/26/2017 1:48:19 PM	31436
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS	6			Analyst	TOM
Diesel Range Organics (DRO)	89	9.8	mg/Kg	1	4/26/2017 11:34:20 AM	31426
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	4/26/2017 11:34:20 AM	31426
Surr: DNOP	86.4	70-130	%Rec	1	4/26/2017 11:34:20 AM	31426
EPA METHOD 8015D: GASOLINE RAM	IGE				Analyst	NSB
Gasoline Range Organics (GRO)	2500	260	mg/Kg	50	4/26/2017 1:10:59 PM	31417
Surr: BFB	133	54-150	%Rec	50	4/26/2017 1:10:59 PM	31417
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	12	1.3	mg/Kg	50	4/26/2017 1:10:59 PM	31417
Toluene	ND	2.6	mg/Kg	50	4/26/2017 1:10:59 PM	31417
Ethylbenzene	15	2.6	mg/Kg	50	4/26/2017 1:10:59 PM	31417
Xylenes, Total	150	5.1	mg/Kg	50	4/26/2017 1:10:59 PM	31417
Surr: 4-Bromofluorobenzene	113	66.6-132	%Rec	50	4/26/2017 1:10:59 PM	31417

TPH = 2,589 mg/Kg S & R Closure standard = 100 mg/Kg Benzene = 12 mg/Kg S & R Closure standard = 10 mg/Kg Total BTEX = 177 mg/Kg S & R Closure standard = 50 mg/Kg

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix

- ple 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
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 5 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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		BLOOM	FIELD, NM 87413	Project #:	Walth A		1	Te	1.50	5-34	5-397	5	Fax	505	-345	-410	7				
Phone #:		(505) 63	2-1199						Analysis Request												
email or F	ax#:			Project Mana	ger:	· · · · · · · · · · · · · · · · · · ·											(T				
QA/QC Pa	ckage: ard		Level 4 (Full Validation)		NELSON V	ELEZ	0218)	(yluo	(MRO)		10	5	04,504	PCB's			er - 300				
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Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEALING THOMAS	BTEX + MTE	BTEX + MTB	TPH 8015B	TPH (Meth	EDB (Meth	RCRA 8 Me	Anions (F,C	8081 Pesti	8260B (VO	8270 (Sem	Chloride (so		Grab samp	5 pt. comp	Air Bubbles
4/25/17	1420	SOIL	5РС - ТВ @ 💪 ' (95)	4 oz 1	Cool	-001	V		V								V			V	-
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1	f necessary,	samples sub	mitted to Hall Environmental may be sul	contracted to other a	ccredited laboratorie	es. This serves as notice of	of this p	possib	ility. A	ny sub	contra	cted da	ta will	be clea	arly no	tated	on the	analyti	cal rep	port.	

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Client:	BLAG	G ENGR.	/ BP AMERICA	Standard	Rush	DAY			B	A		AL	Y	519	5 L	A	BO	R/	T	DR	Y	
				Project Name			www.hallenvironmental.com															
Mailing Ac	dress:	P.O. BO	X 87	1	MUDGE A	# 2	4901 Hawkins NE - Albuquerque, NM 87109															
		BLOOM	FIELD, NM 87413	Project #:					Tel. 505-345-3975 Fax 505-345-4107													
Phone #:		(505) 63	2-1199	1				e i f				A	nal	ysis	Red	ques	st			11		
email or F	ax#:			Project Mana	ger:									-				(न				
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Accreditat	ion:			Sampler:	NELSON VI	ELEZ AV	1	(Gas	RO	î,	,	SIM		02,1	8082			/ wai			mple	
	l.	□ Other		Onice	X Yes to a	D No is		TPH	0/0	118.	504.	3270		03,N	s / 8		(A)	0.00			e sa	r N)
	ype)			Sample Temp	erature: 34			+ #	(GR(po	po	or 8	stals	CI'N	cide	(A	i-VC	il - 3		e	osit	ο Y)
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEALNO	BTEX + MH	BTEX + MTE	TPH 8015B	TPH (Meth	EDB (Meth	PAH (8310	RCRA 8 Me	Anions (F,(8081 Pesti	8260B (VO	8270 (Sem	Chloride (so		Grab samp	# pt: comp	Air Bubbles
4/25/17	1432	JOIL	TH1 @13'-14 (95)	402 - 1	COOL	-001	V		V									V				
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Date: 4/25/17	Time: 1540	Relinquishe	a by	Received by:	Whete	Date Time 425117 1540	Rem	ont/	ACT:	BILL I & REI	FEREN	ICE #	O BP U WHEN	JSING APP	LICAE	CONT	ACTV	VITH C	ORRE	PONI	DING	VID
Date:	Time: [847		stu paeter	Received by: Sophi Cg	7 041	Date Time 24/17 0700	Ref	eren	VID: ce #	VRI	P -	/FEC 786										



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

May 26, 2017

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

RE: MUDGE A 2

OrderNo.: 1705C79

Dear Steven Moskal:

Hall Environmental Analysis Laboratory received 3 sample(s) on 5/25/2017 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 <u>www.hallenvironmental.com</u> 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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Ana	lytical	Re	port
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Lab Order 1705C79

Date Reported: 5/26/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering			С	lient Samp	le ID: SE	Corner 3-Point						
Project: MUDGE A 2	Collection Date: 5/24/2017 3:10:00 PM											
Lab ID: 1705C79-001	Matrix:	5/2017 7:10:00 AM										
Analyses	Result	PQL (Qual	Units	DF	Date Analyzed	Batch					
EPA METHOD 300.0: ANIONS						Analyst	MRA					
Chloride	35	30		mg/Kg	20	5/25/2017 11:25:26 AM	31974					
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S				Analyst	TOM					
Diesel Range Organics (DRO)	160	9.2		mg/Kg	1	5/25/2017 10:07:54 AM	31956					
Motor Oil Range Organics (MRO)	95	46		mg/Kg	1	5/25/2017 10:07:54 AM	31956					
Surr: DNOP	103	70-130		%Rec	1	5/25/2017 10:07:54 AM	31956					
EPA METHOD 8015D: GASOLINE RAM	IGE					Analyst	NSB					
Gasoline Range Organics (GRO)	2400	360		mg/Kg	100	5/25/2017 9:57:50 AM	G43065					
Surr: BFB	191	54-150	S	%Rec	100	5/25/2017 9:57:50 AM	G43065					
EPA METHOD 8021B: VOLATILES						Analyst	NSB					
Benzene	3.7	1.8		mg/Kg	100	5/25/2017 9:57:50 AM	B43065					
Toluene	3.1	1.8		mg/Kg	100	5/25/2017 9:57:50 AM	B43065					
Ethylbenzene	13	3.6		mg/Kg	100	5/25/2017 9:57:50 AM	B43065					
Xylenes, Total	150	7.3		mg/Kg	100	5/25/2017 9:57:50 AM	B43065					
Surr: 4-Bromofluorobenzene	100	66.6-132		%Rec	100	5/25/2017 9:57:50 AM	B43065					

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 7
	ND	Not Detected at the Reporting Limit	Р	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 1705C79

Date Reported: 5/26/2017

1 5/25/2017 11:36:34 AM B43065

1 5/25/2017 11:36:34 AM B43065

1 5/25/2017 11:36:34 AM B43065 1 5/25/2017 11:36:34 AM B43065

Hall Environmental Analysis Laboratory, Inc.

Toluene

Ethylbenzene

Xylenes, Total

Surr: 4-Bromofluorobenzene

CLIENT:	Blagg Engineering			Client Sampl	e ID: No	orth Wall 8-Point	
Project:	MUDGE A 2			Collection I	Date: 5/2	24/2017 3:21:00 PM	
Lab ID:	1705C79-002	Matrix: S	OIL	Received I	Date: 5/2	5/2017 7:10:00 AM	
Analyses		Result	PQL Qu	ual Units	DF	Date Analyzed	Batch
EPA MET	HOD 300.0: ANIONS					Analyst	MRA
Chloride		ND	30	mg/Kg	20	5/25/2017 11:37:50 AM	31974
EPA MET	HOD 8015M/D: DIESEL RAI	NGE ORGANICS				Analyst:	том
Diesel Ra	ange Organics (DRO)	ND	10	mg/Kg	1	5/25/2017 10:30:06 AM	31956
Motor Oil	Range Organics (MRO)	ND	51	mg/Kg	1	5/25/2017 10:30:06 AM	31956
Surr: D	DNOP	95.7	70-130	%Rec	1	5/25/2017 10:30:06 AM	31956
EPA MET	HOD 8015D: GASOLINE RA	NGE				Analyst:	NSB
Gasoline	Range Organics (GRO)	ND	3.7	mg/Kg	1	5/25/2017 11:36:34 AM	G43065
Surr: E	BFB	94.8	54-150	%Rec	1	5/25/2017 11:36:34 AM	G43065
EPA MET	HOD 8021B: VOLATILES					Analyst:	NSB
Benzene		ND	0.018	mg/Kg	1	5/25/2017 11:36:34 AM	B43065

0.037

0.037

0.074

66.6-132

mg/Kg

mg/Kg

mg/Kg

%Rec

ND

ND

ND

93.5

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank	
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page	2 of 7
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	2017
	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 spe	cified

Analytical Report

Lab Order 1705C79

Date Reported: 5/26/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Blagg Engineering			Client Sampl	e ID: We	est Wall 8-Point	
Project:	MUDGE A 2			Collection I	Date: 5/2	4/2017 3:30:00 PM	
Lab ID:	1705C79-003	Matrix: S	SOIL	Received I	Date: 5/2	5/2017 7:10:00 AM	
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA MET	HOD 300.0: ANIONS					Analyst:	MRA
Chloride		ND	30	mg/Kg	20	5/25/2017 11:50:15 AM	31974
EPA MET	HOD 8015M/D: DIESEL RA	ANGE ORGANICS				Analyst:	TOM
Diesel Ra	ange Organics (DRO)	16	9.8	mg/Kg	1	5/25/2017 10:52:10 AM	31956
Motor Oil	Range Organics (MRO)	ND	49	mg/Kg	1	5/25/2017 10:52:10 AM	31956
Surr: D	DNOP	101	70-130	%Rec	1	5/25/2017 10:52:10 AM	31956
EPA MET	HOD 8015D: GASOLINE R	ANGE				Analyst:	NSB
Gasoline	Range Organics (GRO)	ND	21	mg/Kg	5	5/25/2017 12:00:11 PM	G43065
Surr: E	BFB	127	54-150	%Rec	5	5/25/2017 12:00:11 PM	G43065
EPA MET	HOD 8021B: VOLATILES					Analyst:	NSB
Benzene		ND	0.11	mg/Kg	5	5/25/2017 12:00:11 PM	B43065
Toluene		ND	0.21	mg/Kg	5	5/25/2017 12:00:11 PM	B43065
Ethylben	zene	ND	0.21	mg/Kg	5	5/25/2017 12:00:11 PM	B43065
Xylenes,	Total	ND	0.43	mg/Kg	5	5/25/2017 12:00:11 PM	B43065
Surr: 4	-Bromofluorobenzene	97.4	66.6-132	%Rec	5	5/25/2017 12:00:11 PM	B43065

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 3 of 7
	ND	Not Detected at the Reporting Limit	Р	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

Client: Blagg Engineering Project: MUDGE A 2

		T 10 1 FR. 11		
Sample ID MB-31974	SampType: MBLK	TestCode: EPA Method	300.0: Anions	
Client ID: PBS	Batch ID: 31974	RunNo: 43067		
Prep Date: 5/25/2017	Analysis Date: 5/25/2017	SeqNo: 1355858	Units: mg/Kg	
Analyte	Result PQL SPK va	ue SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	ND 1.5			
Sample ID LCS-31974	SampType: LCS	TestCode: EPA Method	300.0: Anions	
Sample ID LCS-31974 Client ID: LCSS	SampType: LCS Batch ID: 31974	TestCode: EPA Method RunNo: 43067	300.0: Anions	
Sample ID LCS-31974 Client ID: LCSS Prep Date: 5/25/2017	SampType: LCS Batch ID: 31974 Analysis Date: 5/25/2017	TestCode: EPA Method RunNo: 43067 SeqNo: 1355859	300.0: Anions Units: mg/Kg	
Sample ID LCS-31974 Client ID: LCSS Prep Date: 5/25/2017 Analyte	SampType: LCS Batch ID: 31974 Analysis Date: 5/25/2017 Result PQL SPK val	TestCode: EPA Method RunNo: 43067 SeqNo: 1355859 ue SPK Ref Val %REC LowLimit	300.0: Anions Units: mg/Kg HighLimit %RPD	RPDLimit Qual

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

Page 4 of 7

WO#: 1705C79 26-May-17

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

Client: Project: MUDGE A 2

Blagg Engineering

Sample ID LCS-31943	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 31943	RunNo: 43051
Prep Date: 5/24/2017	Analysis Date: 5/25/2017	SeqNo: 1354741 Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	4.8 5.000	95.2 70 130
Sample ID MB-31943	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 31943	RunNo: 43051
Prep Date: 5/24/2017	Analysis Date: 5/25/2017	SeqNo: 1354742 Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	9.6 10.00	96.1 70 130
Sample ID LCS-31956	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 31956	RunNo: 43052
Prep Date: 5/25/2017	Analysis Date: 5/25/2017	SeqNo: 1354925 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	46 10 50.00	0 91.1 73.2 114
Sur: DNOP	4.3 5.000	85.7 70 130
Suit. DNOF		
Sample ID MB-31956	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Sample ID MB-31956 Client ID: PBS	SampType: MBLK Batch ID: 31956	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43052
Sample ID MB-31956 Client ID: PBS Prep Date: 5/25/2017	SampType: MBLK Batch ID: 31956 Analysis Date: 5/25/2017	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43052 SeqNo: 1354926 Units: mg/Kg
Sample ID MB-31956 Client ID: PBS Prep Date: 5/25/2017 Analyte	SampType: MBLK Batch ID: 31956 Analysis Date: 5/25/2017 Result PQL SPK value S	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43052 SeqNo: 1354926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Sample ID MB-31956 Client ID: PBS Prep Date: 5/25/2017 Analyte Diesel Range Organics (DRO)	SampType: MBLK Batch ID: 31956 Analysis Date: 5/25/2017 Result PQL SPK value S ND 10	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43052 SeqNo: 1354926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Sample ID MB-31956 Client ID: PBS Prep Date: 5/25/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO)	SampType: MBLK Batch ID: 31956 Analysis Date: 5/25/2017 Result PQL SPK value S ND 10 ND 50	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43052 SeqNo: 1354926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Sample ID MB-31956 Client ID: PBS Prep Date: 5/25/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP	SampType: MBLK Batch ID: 31956 Analysis Date: 5/25/2017 Result PQL SPK value ND 10 ND 50 8.1 10.00	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43052 SeqNo: 1354926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 81.3 70 130
Sample ID MB-31956 Client ID: PBS Prep Date: 5/25/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID LCS-31932	SampType: MBLK Batch ID: 31956 Analysis Date: 5/25/2017 Result PQL SPK value S ND 10 ND 50 8.1 10.00 SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43052 SeqNo: 1354926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 81.3 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics
Sample ID MB-31956 Client ID: PBS Prep Date: 5/25/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID LCS-31932 Client ID: LCSS	SampType: MBLK Batch ID: 31956 Analysis Date: 5/25/2017 Result PQL SPK value S ND 10 ND 50 8.1 10.00 SampType: LCS Batch ID: 31932	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43052 SeqNo: 1354926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 81.3 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43051
Sample ID MB-31956 Client ID: PBS Prep Date: 5/25/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID LCS-31932 Client ID: LCSS Prep Date: 5/24/2017	SampType: MBLK Batch ID: 31956 Analysis Date: 5/25/2017 Result PQL SPK value ND 10 ND 50 8.1 10.00 SampType: LCS Batch ID: 31932 Analysis Date: 5/25/2017	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43052 SeqNo: 1354926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 81.3 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43051 SeqNo: 1355829 Units: %Rec
Sample ID MB-31956 Client ID: PBS Prep Date: 5/25/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID LCS-31932 Client ID: LCSS Prep Date: 5/24/2017 Analyte	SampType: MBLK Batch ID: 31956 Analysis Date: 5/25/2017 Result PQL SPK value S ND 10 ND 50 8.1 10.00 SampType: LCS Batch ID: 31932 Analysis Date: 5/25/2017 Result PQL SPK value S	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43052 SeqNo: 1354926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 81.3 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43051 SeqNo: 1355829 Units: %Rec SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Sample ID MB-31956 Client ID: PBS Prep Date: 5/25/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID LCS-31932 Client ID: LCSS Prep Date: 5/24/2017 Analyte Surr: DNOP	SampType: MBLK Batch ID: 31956 Analysis Date: 5/25/2017 Result PQL SPK value ND 10 ND 50 8.1 10.00 SampType: LCS Batch ID: 31932 Analysis Date: 5/25/2017 Result PQL SPK value Analysis Date: 5/25/2017 Result PQL SPK value 4.5 5.000 5.000	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43052 SeqNo: 1354926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 81.3 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43051 SeqNo: 1355829 Units: %Rec SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 89.3 70 130 130
Sample ID MB-31956 Client ID: PBS Prep Date: 5/25/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID LCS-31932 Client ID: LCSS Prep Date: 5/24/2017 Analyte Surr: DNOP Sample ID MB-31932	SampType: MBLK Batch ID: 31956 Analysis Date: 5/25/2017 Result PQL SPK value ND 10 ND 50 8.1 10.00 SampType: LCS Batch ID: 31932 Analysis Date: 5/25/2017 Result PQL SPK value 4.5 5.000 SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43052 SeqNo: 1354926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 81.3 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43051 SeqNo: 1355829 Units: %Rec SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 89.3 70 130 130
Sample ID MB-31956 Client ID: PBS Prep Date: 5/25/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID LCS-31932 Client ID: LCSS Prep Date: 5/24/2017 Analyte Surr: DNOP Sample ID MB-31932 Client ID: PBS	SampType: MBLK Batch ID: 31956 Analysis Date: 5/25/2017 Result PQL SPK value ND 10 ND 50 8.1 10.00 SampType: LCS Batch ID: 31932 Analysis Date: 5/25/2017 Result PQL SPK value Analysis Date: 5/25/2017 Result PQL SPK value 4.5 5.000 SampType: MBLK Batch ID: 31932	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43052 SeqNo: 1354926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 81.3 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43051 SeqNo: 1355829 Units: %Rec SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 89.3 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43051
Sample ID MB-31956 Client ID: PBS Prep Date: 5/25/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID LCS-31932 Client ID: LCSS Prep Date: 5/24/2017 Analyte Surr: DNOP Sample ID MB-31932 Client ID: PBS Prep Date: 5/24/2017	SampType: MBLK Batch ID: 31956 Analysis Date: 5/25/2017 Result PQL SPK value ND 10 ND 50 8.1 10.00 SampType: LCS Batch ID: 31932 Analysis Date: 5/25/2017 Result PQL SPK value 4.5 5.000 SampType: MBLK Batch ID: 31932 Analysis Date: 5/25/2017	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43052 SeqNo: 1354926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 81.3 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43051 SeqNo: 1355829 Units: %Rec SPK Ref Val %REC LowLimit HighLimit %Rep RPDLimit Qual 89.3 70 130
Sample ID MB-31956 Client ID: PBS Prep Date: 5/25/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID LCS-31932 Client ID: LCSS Prep Date: 5/24/2017 Analyte Surr: DNOP Sample ID MB-31932 Client ID: PBS Prep Date: 5/24/2017 Analyte	SampType: MBLK Batch ID: 31956 Analysis Date: 5/25/2017 Result PQL SPK value ND 10 ND 50 8.1 10.00 SampType: LCS Batch ID: 31932 Analysis Date: 5/25/2017 Result PQL SPK value Analysis Date: 5/25/2017 Result PQL SPK value SampType: MBLK Batch ID: 31932 Analysis Date: 5/25/2017 Result PQL SPK value SampType: MBLK Batch ID: 31932 Analysis Date: 5/25/2017 Result PQL SPK value	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43052 SeqNo: 1354926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 81.3 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43051 SeqNo: 1355829 Units: %Rec SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 89.3 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 43051 SeqNo: 1355830 Units: %Rec SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual 89.3 70 130

Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- Sample Diluted Due to Matrix D
- Holding times for preparation or analysis exceeded Η
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits R
- S % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank В
- Е Value above quantitation range
- Analyte detected below quantitation limits J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 5 of 7

WO#:

1705C79

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

Client: Blagg Engineering Project: MUDGE A 2

Sample ID RB	Samp	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID: PBS	Batc	h ID: G4	3065	F	RunNo: 4					
Prep Date:	Analysis [Date: 5/	25/2017	S	SeqNo: 1	355625	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BEB	920		1000		92.3	54	150			
our. Br B	020		1000		02.0	0.				
Sample ID 2.5UG GRO LCS	Samp	Гуре: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	6	
Sample ID 2.5UG GRO LCS Client ID: LCSS	Samp [¬] Batc	Type: LC h ID: G4	S 3065	Tes	tCode: El RunNo: 4	PA Method 3065	8015D: Gaso	line Rang	e	
Sample ID 2.5UG GRO LCS Client ID: LCSS Prep Date:	Samp Batc Analysis [Type: LC h ID: G4 Date: 5/	S 3065 25/2017	Tes F	tCode: El RunNo: 4 SeqNo: 1	PA Method 3065 355626	8015D: Gaso Units: mg/F	bline Rang	e	
Sample ID 2.5UG GRO LCS Client ID: LCSS Prep Date: Analyte	Samp Batc Analysis I Result	Type: LC h ID: G4 Date: 5/ PQL	S 3065 25/2017 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 3065 355626 LowLimit	8015D: Gaso Units: mg/K HighLimit	oline Rang (g %RPD	e RPDLimit	Qual
Sample ID 2.5UG GRO LCS Client ID: LCSS Prep Date: Analyte Gasoline Range Organics (GRO)	Samp Batc Analysis I Result 26	Type: LC h ID: G4 Date: 5 / PQL 5.0	S 3065 25/2017 SPK value 25.00	Tes F S SPK Ref Val 0	tCode: El RunNo: 4 SeqNo: 1 %REC 104	PA Method 3065 355626 LowLimit 76.4	8015D: Gaso Units: mg/k HighLimit 125	oline Rang (g %RPD	e RPDLimit	Qual

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

WO#: 1705C79 26-May-17

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Client: Blagg Engineering Project: MUDGE A 2

Sample ID RB	Samp	Гуре: МЕ	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: PBS	Batc	h ID: B4	3065	F	RunNo: 4	3065				
Prep Date:	Analysis [Date: 5/	25/2017	5	SeqNo: 1	355634	Units: mg/k	٢g		
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	0.91		1.000		90.7	66.6	132			
Sample ID 100NG BTEX LC	s Samp	Type: LC	S	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batc	h ID: B4	3065	F	RunNo: 4	3065				
Prep Date:	Analysis [Date: 5/	25/2017	S	SeqNo: 1	355635	Units: mg/k	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.025	1.000	0	85.3	80	120			
Toluene	0.90	0.050	1.000	0	89.6	80	120			
Ethylbenzene	0.92	0.050	1.000	0	92.0	80	120			
Xylenes, Total	2.8	0.10	3.000	0	93.6	80	120			
Surr: 4-Bromofluorobenzene	0.94		1.000		93.9	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
- 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

WO#: 1705C79 26-May-17

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HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental A Albu TEL: 505-345-3975 J Website: www.hal	Analysi 4901 querqu FAX: 5 Ienviro	s Labor Hawkin e, NM 6 05-345 nmenta	ratory ns NE 87109 Sa -4107 il.com	mple Log-In (Check List
Client Name: BLAGG	Work Order Number:	17050	079		RcptN	p: 1
Received By: Anne Thome	5/25/2017 7:10:00 AM			Arma I	k	
Completed By: Anne Thome Reviewed By:	5/25/2017 7:58:21 AM 5[25] 7			Anne N	h	
Chain of Custody						
1. Custody seals intact on sample bottle	3?	Yes		No	Not Present]
2. Is Chain of Custody complete?		Yes	\checkmark	No	Not Present]
3. How was the sample delivered?		Cour	ier			
Log In						
4. Was an attempt made to cool the same	nples?	Yes	V	No	NA C]
5. Were all samples received at a tempe	rature of >0° C to 6.0°C	Yes	V	No) NA 🗆	
6. Sample(s) in proper container(s)?		Yes		No		
7. Sufficient sample volume for indicated	test(s)?	Yes	\checkmark	No		
8. Are samples (except VOA and ONG)	properly preserved?	Yes	\checkmark	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 No	# of preserved	
12. Does paperwork match bottle labels?		Yes	\checkmark	No	bottles checked for pH:	
(Note discrepancies on chain of custo	dy)			_	(<2	2 or >12 unless noted)
13. Are matrices correctly identified on Ch	ain of Custody?	Yes	\checkmark	No	Adjusted?	
14. Is it clear what analyses were request	ad?	Yes	\checkmark	No L		
15. Were all holding times able to be met? (If no, notify customer for authorization)) 1.)	Yes		No L	Checked by	
Special Handling (if applicable)						
46 Mas client actified of all discrepancies	with this and of	Vec		No		1
To, was client notified of all discrepancies		105				,
Person Notified:	Date	-				
By Whom:	Via:			Phone F	ax I In Person	
Regarding:					NAME OF BRIDE AND DESCRIPTION OF THE PARTY	
17. Additional remarks:						
18. <u>Cooler Information</u> Cooler No Temp °C Condition	Seal Intact Seal No S	eal Da	ite	Signed By	_	
[1 1.0 Good	Tes					

Page 1 of 1

-	Spuln								-		-	Key/1	Date			Accredi	X Stan	QA/QC F	email or	Phone #		Mailing		Client:	0
necessary	JE-JU Time: (804	Time							252	1001	123	1510	Time	(Type)	f	tation	dard	ackage	Fax#:	# (5		Addres	Blegg	BP 1	hain
, samples sub	Relinquish								-	+	÷	Soll	Matrix			2				15) 320		Si	Enely	menica	-of-Cu
mitted to Hall Environmer	ad by:								WEST Wall	11bm HIMAN	Non-1 1.0.11	SE Corner	Sample Rec		1		Level 4 (Full \			5817-0		0	Kerty INC		istody Rec
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ontracted to other ac	Received by:								-		-	HOEXI	ArdS[25//) Container Type and #	Sample Temp	On Ice: /	Sampler: J	(STEN	Project Manag		Project #:	SCN 1	Project Name	Standard	Turn-Around
credited laboratories	Leek										-	Cool	Preservative Type	erature:	A Vestiment	EFF BLAGE		Machar	ger:			τ Ψ	2	X Rush	Time:
. This serves as notice of this	Date Time	1							cm.	100.	CV ~	102	HEAL NO	.o.	D No.							~	2	HAC	SAME
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HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 01, 2017

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

RE: MUDGE A #2

OrderNo.: 1705E89

Dear Steven Moskal:

Hall Environmental Analysis Laboratory received 3 sample(s) on 5/31/2017 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 <u>www.hallenvironmental.com</u> 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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical	Report
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Lab Order 1705E89

Date Reported: 6/1/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering			0	lient Sampl	e ID: Ea	st Wall S End 5-pt					
Project: MUDGE A #2				Collection	Date: 5/3	0/2017 2:08:00 PM					
Lab ID: 1705E89-001	Matrix:	SOIL		Received Date: 5/31/2017 7:15:00 AM							
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch				
EPA METHOD 300.0: ANIONS						Analyst:	MRA				
Chloride	330	30		mg/Kg	20	5/31/2017 11:11:03 AM	32038				
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANIC	S				Analyst:	TOM				
Diesel Range Organics (DRO)	120	9.6		mg/Kg	1	5/31/2017 10:51:53 AM	32035				
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/31/2017 10:51:53 AM	32035				
Surr: DNOP	96.9	70-130		%Rec	1	5/31/2017 10:51:53 AM	32035				
EPA METHOD 8015D: GASOLINE RAN	IGE					Analyst:	RAA				
Gasoline Range Organics (GRO)	110	17		mg/Kg	5	5/31/2017 11:48:53 AM	R43151				
Surr: BFB	311	54-150	S	%Rec	5	5/31/2017 11:48:53 AM	R43151				
EPA METHOD 8021B: VOLATILES						Analyst:	RAA				
Benzene	ND	0.084		mg/Kg	5	5/31/2017 11:48:53 AM	B43151				
Toluene	0.30	0.17		mg/Kg	5	5/31/2017 11:48:53 AM	B43151				
Ethylbenzene	ND	0.17		mg/Kg	5	5/31/2017 11:48:53 AM	B43151				
Xylenes, Total	3.8	0.34		mg/Kg	5	5/31/2017 11:48:53 AM	B43151				
Surr: 4-Bromofluorobenzene	125	66.6-132		%Rec	5	5/31/2017 11:48:53 AM	B43151				

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	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 1 of 7
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	1 age 1 01 /
	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	it as specified

Analytical Report	
Lab Order 1705E89	

Date Reported: 6/1/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	ith Wall E End 5-pt						
Project:	MUDGE A #2			Collection I	Date: 5/3	0/2017 2:11:00 PM	
Lab ID:	1705E89-002	Matrix: S	SOIL	Received I	Date: 5/3	1/2017 7:15:00 AM	
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA MET	HOD 300.0: ANIONS					Analyst:	MRA
Chloride		390	30	mg/Kg	20	5/31/2017 11:23:28 AM	32038
EPA MET	HOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst:	TOM
Diesel Ra	ange Organics (DRO)	11	10	mg/Kg	1	5/31/2017 11:13:51 AM	32035
Motor Oil	Range Organics (MRO)	ND	51	mg/Kg	1	5/31/2017 11:13:51 AM	32035
Surr: D	DNOP	98.1	70-130	%Rec	1	5/31/2017 11:13:51 AM	32035
EPA MET	HOD 8015D: GASOLINE RA	NGE				Analyst:	RAA
Gasoline	Range Organics (GRO)	ND	16	mg/Kg	5	5/31/2017 12:12:49 PM	R43151
Surr: E	BFB	103	54-150	%Rec	5	5/31/2017 12:12:49 PM	R43151
EPA MET	HOD 8021B: VOLATILES					Analyst:	RAA
Benzene		ND	0.080	mg/Kg	5	5/31/2017 12:12:49 PM	B43151
Toluene		ND	0.16	mg/Kg	5	5/31/2017 12:12:49 PM	B43151
Ethylben	zene	ND	0.16	mg/Kg	5	5/31/2017 12:12:49 PM	B43151
Xylenes,	Total	ND	0.32	mg/Kg	5	5/31/2017 12:12:49 PM	B43151
Surr: 4	I-Bromofluorobenzene	113	66.6-132	%Rec	5	5/31/2017 12:12:49 PM	B43151

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 7
	ND	Not Detected at the Reporting Limit	Р	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 1705E89

Date Reported: 6/1/2017

5/31/2017 12:36:43 PM R43151

5/31/2017 12:36:43 PM R43151

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20 5/31/2017 12:36:43 PM B43151

20 5/31/2017 12:36:43 PM B43151

Analyst: RAA

Batch

CLIENT: Blagg Engineering Client Sample ID: South Wall W End 5-pt MUDGE A #2 Collection Date: 5/30/2017 2:15:00 PM **Project:** 1705E89-003 Matrix: SOIL Received Date: 5/31/2017 7:15:00 AM Lab ID: **POL Oual Units** Analyses Result **DF** Date Analyzed **EPA METHOD 300.0: ANIONS** Analyst: MRA Chloride 270 30 mg/Kg 20 5/31/2017 11:35:52 AM 32038 EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: TOM Diesel Range Organics (DRO) 210 9.8 5/31/2017 11:35:51 AM 32035 mg/Kg 1 Motor Oil Range Organics (MRO) ND 5/31/2017 11:35:51 AM 32035 49 mg/Kg 1 Surr: DNOP 103 70-130 %Rec 1 5/31/2017 11:35:51 AM 32035 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA

380

199

ND

3.0

1.8

22

118

66

S

54-150

0.33

0.66

0.66

1.3

66.6-132

mg/Kg

%Rec

mg/Kg

mg/Kg

mg/Kg

mg/Kg

%Rec

20

20

20

20

Hall Environmental Analysis Laboratory, Inc.

Gasoline Range Organics (GRO)

Surr: 4-Bromofluorobenzene

EPA METHOD 8021B: VOLATILES

Surr: BFB

Benzene

Toluene

Ethylbenzene

Xylenes, Total

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 3 of 7
	ND	Not Detected at the Reporting Limit	Р	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

Client:Blagg EngineeringProject:MUDGE A #2

Sample ID MB-32038	SampType: mblk	TestCode: EPA Method	300.0: Anions	
Client ID: PBS	Batch ID: 32038	RunNo: 43159		
Prep Date: 5/31/2017	Analysis Date: 5/31/2017	SeqNo: 1359147	Units: mg/Kg	×.
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	ND 1.5			
Sample ID LCS-32038	SampType: Ics	TestCode: EPA Method	300.0: Anions	
Client ID: LCSS	Batch ID: 32038	RunNo: 43159		
Prep Date: 5/31/2017	Analysis Date: 5/31/2017	SeqNo: 1359148	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	14 1.5 15.00	0 92.7 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

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WO#: **1705E89** *01-Jun-17*

QC SUMMARY REPORT

WO#: 1705E89

Page 5 of 7

01-Jun-17

Hall Environmental Analysis Laboratory, Inc.

Client: Blagg Engineering Project: MUDGE A #2

Sample ID LCS-32035	SampT	ype: LC	S	Test	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID: LCSS	Batch	ID: 32	035	R	RunNo: 4	3153				
Prep Date: 5/31/2017	Analysis D	ate: 5/	31/2017	S	SeqNo: 1	358341	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	84.2	73.2	114			
Surr: DNOP	4.2		5.000		85.0	70	130			
Sample ID MB-32035	SampT	ype: ME	BLK	Test	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: PBS	Batch	ID: 32	035	R	RunNo: 4	3153				
Prep Date: 5/31/2017	Analysis D	ate: 5/	31/2017	S	SeqNo: 1	358342	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Analyte Diesel Range Organics (DRO)	Result ND	PQL 10	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO)	Result ND ND	PQL 10 50	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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

Client:Blagg EngineeringProject:MUDGE A #2

Sample ID 2.5UG GRO LCS	Samp1	SampType: LCS TestCode: EPA Method 8015D: Gasoline Range										
Client ID: LCSS	Batcl	h ID: R4	3151	F	RunNo: 4	3151						
Prep Date:	Analysis D	Date: 5/	31/2017	S	SeqNo: 1	359038	Units: mg/k	٢g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.0	76.4	125					
Surr: BFB	1100		1000		107	54	150					
Sample ID RB	SampT	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	е			
Client ID: PBS	Batch	h ID: R4	3151	F	RunNo: 4	3151						
Prep Date:	Analysis D	Date: 5/	31/2017	5	SeqNo: 1	359039	Units: mg/k	٢g				
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		92.2	54	150					

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

WO#: 1705E89

01-Jun-17

Page 6 of 7

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

Client: Blagg Engineering Project: MUDGE A #2

Sample ID 100NG BTEX LC	SampType: LCS TestCode: EPA Method 8021B: Volatiles									
Client ID: LCSS	Batch	h ID: B4	3151	F	RunNo: 4	3151				
Prep Date:	Analysis D	Date: 5/	31/2017	S	SeqNo: 1	359043	Units: mg/k	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	104	80	120			
Toluene	1.0	0.050	1.000	0	105	80	120			
Ethylbenzene	1.1	0.050	1.000	0	105	80	120			
Xylenes, Total	3.2	0.10	3.000	0	107	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		114	66.6	132			
Sample ID RB	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: PBS	Batch	h ID: B4	3151	F	RunNo: 4	3151				
Prep Date:	Analysis D	Date: 5/	31/2017	5	SeqNo: 1	359046	Units: mg/k	<g< td=""><td></td><td></td></g<>		
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	11		1 000		112	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
- 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

WO#: 1705E89

01-Jun-17

Page 7 of 7

	HALL ENVIR ANALY LABOR	CONMENTAL YSIS RATORY	Hall Environmental Albu Albu TEL: 505-345-3975 J Website: www.hal	Analysi 4901 querqu FAX: 5 lenviro	is Laboratory Hawkins NI 10, NM 87109 105-345-4107 primental.com	san	nple Log-In Cł	neck List
Clie	ent Name:	BLAGG	Work Order Number:	1705	E89		RcptNo:	1
Rec	eived By:	Anne Thome	5/31/2017 7:15:00 AM			Arre H.	~	
Rev	iewed By:	Anne Inorne	5/31/2017 7:49:02 AM			Anne Hr	~	
<u>Cha</u>	in of Cus	tody						
1.	Custody sea	Is intact on sample bottles?		Yes		No 🗌	Not Present	
2.	Is Chain of C	Custody complete?		Yes	\checkmark	No 🗌	Not Present	
3.	How was the	e sample delivered?		Cour	rier			
Lo	<u>g In</u>							
4.	Was an atte	mpt made to cool the samples	?	Yes		No 🗌	NA 🗌	
5.	Were all san	nples received at a temperature	e of >0° C to 6.0°C	Yes		No 🗌	NA	
6.	Sample(s) ir	n proper container(s)?		Yes		No 🗌		
7.	Sufficient sa	mple volume for indicated test(s)?	Yes	\checkmark	No 🗌		
8.	Are samples	(except VOA and ONG) prope	rly preserved?	Yes		No 🗌		
9.	Was preserv	vative added to bottles?		Yes		No 🗹	NA 🗌	
10.	VOA vials ha	ave zero headspace?		Yes		No 🗌	No VOA Vials 🗹	
11.	Were any sa	ample containers received brok	en?	Yes		No 🗹		
12	Does naner	vork match hottle labels?		Yes		No 🗌	# of preserved bottles checked for pH:	
	(Note discre	pancies on chain of custody)					(<2 or	>12 unless noted)
13.	Are matrices	correctly identified on Chain of	Custody?	Yes	\checkmark	No 🗌	Adjusted?	
14.	Is it clear wh	at analyses were requested?		Yes		No 🗌		
15.	Were all hold (If no, notify	ding times able to be met? customer for authorization.)		Yes		No 🗌	Checked by:	
Spe	cial Hand	ling (if applicable)						
16.	Was client no	otified of all discrepancies with	this order?	Yes		No 🗌	NA 🗹	
	Person	Notified:	Date					
	By Wh	om:	Via:	eMa	ail 🗌 Pho	ne 🗌 Fax	In Person	
	Regard	ding:						
	Client	Instructions:			.			
17.	Additional re	emarks:						
18.	Cooler Info Cooler No	Imation 0 Temp °C Condition S 1.3 Good Yes	eal Intact Seal No S	eal Da	ate Si	gned By	-	
	Page 1 of	f 1						

Client:	Chain-of-Custody Record Client: BP America BLAGG Engineery Mailing Address:			I urn-Around Time: SAMiz □ Standard DAH Project Name: #					HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com												
Mailing	Address	0		Pricipa	9E /1	2	4901 Hawkins NE - Albuquerque, NM 87109														
	1-	t	1	Project #:				Te	el. 50	5-34	5-39	975	F	ax	505-	-345	-410	7			
Phone #	#: (SO	5) 30	20-1183							-	1.55	A	naly	sis	Req	ues	t				
email or	r Fax#:			Project Mana	ger:		E	ylnc	RO					(*)	ŝ						
QAVQC F	Package: dard		Level 4 (Full Validation)	ST	eve Mi	DSKAL	s (802	(Gas c	SO / M			SIMS)		PO4,S	PCB'						
	tation AP	Othe	r	Sampler:	J- BLAG	No	TMB	+ TPH	SO / DF	18.1)	04.1)	8270 5		3.NO2	/ 8082		(A)				or N)
	(Type)			Sample Tem	perature: /	3		B	E)	d 4	d 50	DO C	tals	NON'	des	2	NO.	12			NO
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX + ME	BTEX + MT	TPH 8015B	TPH (Metho	EDB (Metho	PAH's (8310	RCRA 8 Me	Anions (F,C	8081 Pestic	8260B (VOA	8270 (Semi-	CHUR			Air Bubbles
5/2/17	1408	SOIL	EASTWALK-S. END 5-pt	40221	COOL	-201	X		X									X			
1	1411)	Sathwell-E.E.S 5-pt	1	1	262	X		X									X			
1	1415		South Will - W-ENS 5-pt	1	1	-663	×		×									×			—
			· · · · · · · · · · · · · · · · · · ·																		+
																					\mp
											_									+	-
				/	h																
Date: 53:1/7 Date:	Time: (62-0 Time:	Relinguish	ed by: {Blogg ed by:	Received by:	un-n	Date Time 05/3///7 Date Time	Rer	nark VBS	s: B V E	ill: 10: Joue	BP Vi nt	(120 : L	NE 1	- O	Olie	3M	-E	: 11	098	Ц 34	El

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.



June 06, 2017

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

RE: MUDGE A 2

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

OrderNo.: 1706155

Dear Steven Moskal:

Hall Environmental Analysis Laboratory received 1 sample(s) on 6/5/2017 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 <u>www.hallenvironmental.com</u> 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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analy	tical	Re	port
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Lab Order 1706155

Date Reported: 6/6/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering			Client Sampl	• ID: GI	RAB @ 40'	
CLIENT: Diagg Engineering			Cheft Sampi	e ID. OI	CAD (0) 40	
Project: MUDGE A 2			Collection 1	Date: 6/2	2/2017 2:38:00 PM	
Lab ID: 1706155-001	Matrix:	SOIL	Received 1	Date: 6/5	5/2017 7:30:00 AM	
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S			Analys	TOM
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	6/5/2017 9:11:35 AM	32097
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	6/5/2017 9:11:35 AM	32097
Surr: DNOP	85.2	70-130	%Rec	1	6/5/2017 9:11:35 AM	32097
EPA METHOD 8015D: GASOLINE RAI	NGE				Analys	NSB
Gasoline Range Organics (GRO)	ND	3.6	mg/Kg	1	6/5/2017 12:39:20 PM	32090
Surr: BFB	102	54-150	%Rec	1	6/5/2017 12:39:20 PM	32090
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.018	mg/Kg	1	6/5/2017 12:39:20 PM	32090
Toluene	ND	0.036	mg/Kg	1	6/5/2017 12:39:20 PM	32090
Ethylbenzene	ND	0.036	mg/Kg	1	6/5/2017 12:39:20 PM	32090
Xylenes, Total	ND	0.072	mg/Kg	1	6/5/2017 12:39:20 PM	32090
Surr: 4-Bromofluorobenzene	123	66.6-132	%Rec	1	6/5/2017 12:39:20 PM	32090

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 4
	ND	Not Detected at the Reporting Limit	Р	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

Client: Blagg Engineering MUDGE A 2 **Project:**

Sample ID LCS-32097	SampT	ype: LC	S	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS	Batch	1 ID: 32	097	F	RunNo: 4	3241				
Prep Date: 6/5/2017	Analysis D	ate: 6/	5/2017	S	SeqNo: 1	361182	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.7	73.2	11 <mark>4</mark>			
Surr: DNOP	3.6		5.000		72.5	70	130			
Sample ID MP 22007	SamnT	VDO: ME		Toe		DA Mothod	9015M/D. Di	acol Pana	Organice	
Sample ID MB-32097	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Sample ID MB-32097 Client ID: PBS	SampT Batch	ype: ME	3LK 097	Tes R	tCode: El RunNo: 4	PA Method 3241	8015M/D: Di	esel Range	e Organics	
Sample ID MB-32097 Client ID: PBS Prep Date: 6/5/2017	SampT Batch Analysis D	ype: ME 1D: 320 ate: 6/	BLK 097 5/2017	Tes F	tCode: El RunNo: 4 SeqNo: 1	PA Method 3241 361183	8015M/D: Di Units: mg/H	esel Rango (g	e Organics	
Sample ID MB-32097 Client ID: PBS Prep Date: 6/5/2017 Analyte	SampT Batch Analysis D Result	ype: ME 1D: 320 ate: 6/ PQL	BLK 097 5/2017 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 3241 361183 LowLimit	8015M/D: Di Units: mg/H HighLimit	esel Rango (g %RPD	e Organics RPDLimit	Qual
Sample ID MB-32097 Client ID: PBS Prep Date: 6/5/2017 Analyte Diesel Range Organics (DRO)	SampT Batch Analysis D Result ND	ype: ME 1D: 32 Pate: 6/ PQL 10	BLK 097 5/2017 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 3241 361183 LowLimit	8015M/D: Di Units: mg/k HighLimit	esel Rango (g %RPD	e Organics RPDLimit	Qual
Sample ID MB-32097 Client ID: PBS Prep Date: 6/5/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO)	SampT Batch Analysis D Result ND ND	ype: ME n ID: 32 pate: 6/ PQL 10 50	BLK 097 5/2017 SPK value	Tes R SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 3241 361183 LowLimit	8015M/D: Di Units: mg/k HighLimit	seel Rango (g %RPD	e Organics RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- Η 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
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- Reporting Detection Limit RL
- W Sample container temperature is out of limit as specified

1706155 06-Jun-17

WO#:

Page 2 of 4

Client:Blagg EngineeringProject:MUDGE A 2

Sample ID MB-32090	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	е	
Client ID: PBS	Batch	n ID: 32	090	F	RunNo: 4	3255				
Prep Date: 6/2/2017	Analysis D	ate: 6/	5/2017	S	SeqNo: 1	361956	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO) Surr: BFB	ND 1000	5.0	1000		102	54	150			
Sample ID LCS-32090	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Sample ID LCS-32090 Client ID: LCSS	SampT Batch	ype: LC	S 090	Tes F	tCode: El	PA Method 3255	8015D: Gaso	line Rang	9	
Sample ID LCS-32090 Client ID: LCSS Prep Date: 6/2/2017	SampT Batch Analysis D	ype: LC 1 ID: 32 ate: 6/	S 090 5/2017	Tes F	tCode: El RunNo: 4: SeqNo: 1:	PA Method 3255 361957	8015D: Gaso Units: mg/M	bline Rang	e	
Sample ID LCS-32090 Client ID: LCSS Prep Date: 6/2/2017 Analyte	SampT Batch Analysis D Result	Type: LC n ID: 32 Pate: 6/ PQL	S 090 5/2017 SPK value	Tes F S SPK Ref Val	tCode: EF RunNo: 4: SeqNo: 1: %REC	PA Method 3255 361957 LowLimit	8015D: Gaso Units: mg/M HighLimit	oline Rang Kg %RPD	e RPDLimit	Qual
Sample ID LCS-32090 Client ID: LCSS Prep Date: 6/2/2017 Analyte Gasoline Range Organics (GRO)	SampT Batch Analysis D Result 23	ype: LC n ID: 32 pate: 6/ PQL 5.0	S 090 5/2017 SPK value 25.00	Tes F S SPK Ref Val 0	tCode: El RunNo: 4: BeqNo: 1: %REC 93.0	PA Method 3255 361957 LowLimit 76.4	8015D: Gaso Units: mg/M HighLimit 125	Soline Rang (g %RPD	e RPDLimit	Qual

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

WO#: 1706155 06-Jun-17

Page 3 of 4

Client: MUDGE A 2 **Project:**

Blagg Engineering

Sample ID MB-32090	Samp	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: PBS	Batc	h ID: 32	090	F	RunNo: 4	3255				
Prep Date: 6/2/2017	Analysis [Date: 6/	5/2017	S	eqNo: 1	361976	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025					0			
Taluana	ND	0.050								
Toluelle	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.3		1.000		126	66.6	132			
Sample ID I CS 22000	Comp		0	Too	Codo: El	DA Mothod	2021 B: Volat	ilee		
Sample ID LCS-32090	Samp	Type. LC	5	Tes	icoue. El	-A wethou	0021D: VOlat	nes		
Client ID: LCSS	Batc	h ID: 32	090	F	unNo: 4	3255				
Prep Date: 6/2/2017	Analysis [Date: 6/	5/2017	S	eqNo: 1	361977	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	99.8	80	120			
Toluene	1.0	0.050	1.000	0	99.9	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			

Qualifiers:

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

Page 4 of 4

06-Jun-17

1706155

WO#:

ANALYSIS LABORATO	IENTAL DRY	Hall Environmenta All TEL: 505-345-397 Website: www.h	al Analysis 4901 I buquerque 15 FAX: 50 nallenviron	Laborator Hawkins N NM 8710 05-345-410 mental.com	^y ^E ⁹ Sam	ple Log-In Check Lis	st
Client Name: BLAC	GG	Work Order Numbe	er: 17061	55		RcptNo: 1	
Received By: Ann	e Thorne	6/5/2017 7:30:00 AM			anne Han	_	
Completed By: Ann	e Thome	6/5/2017 7:52:43 AM			Dans Han		
Reviewed By:	-6-	615/17-					
Chain of Custody							
1. Custody seals inta	ct on sample bottle	es?	Yes		No 🗌	Not Present 🗹	
2. Is Chain of Custod	y complete?		Yes	\checkmark	No 🗌	Not Present	
3. How was the same	ole delivered?		Courie	<u>ər</u>			
Log In						_	
4. Was an attempt m	ade to cool the sa	mples?	Yes	\checkmark	No 🗌	NA L	
5. Were all samples	received at a temp	erature of >0° C to 6.0°C	Yes		No 🗌	NA 🗌	
6. Sample(s) in prop	er container(s)?		Yes	\checkmark	No 🗌		
7. Sufficient sample v	volume for indicate	d test(s)?	Yes		No 🗆		
8. Are samples (exce	pt VOA and ONG)	properly preserved?	Yes	\checkmark	No 🗌		
9. Was preservative a	added to bottles?		Yes		No 🗹	NA 🗌	
10. VOA vials have ze	ro headspace?		Yes		No 🗆	No VOA Vials 🗹	
11. Were any sample	containers receive	d broken?	Yes		No 🗹	# of preserved	
12. Does paperwork m	atch bottle labels?	adv)	Yes		No 🗆	for pH:	note
13 Are matrices corre	ctly identified on C	hain of Custody?	Yes		No 🗆	Adjusted?	
14. Is it clear what ana	lyses were request	ted?	Yes	~	No 🗌		
15. Were all holding tin (If no, notify custor	mes able to be met ner for authorizatio	? n.)	Yes	\checkmark	No 🗌	Checked by:	_
Special Handling	(if applicable)						
16. Was client notified	of all discrepancie	s with this order?	Yes		No 🗌	NA 🗹	
Person Notifi	ed:	Date					
By Whom:	1	Via:	eMai	I D Pho	one 🗌 Fax	In Person	
Regarding:						ALTER CONTRACTOR AND ALTER	
Client Instruc	tions:						
17. Additional remarks	3:						
18. Cooler Information	emp °C Conditio Good	n Seal Intact Seal No Yes	Seal Dat	te S	igned By		

Client:	hain- 3P A 3LAGG Address	of-Cu MERICA ENGW	Istody Record	Turn-Around	Time: XRush :: DGE A	SAME DAT		49	01 H	H A v awkir	AI N/	AL AL	EP YS envi	IS ronn	IR S L nent	AE al.co	NN 301	1EN RA		RY
	10	012	20 107	Project #:				Te	el. 50	5-34	5-39	75	E	ax t	505-	345-	4107			
Phone # email or QA/QC P	Fax#: ackage: ard	<u>)5) 5</u>	Level 4 (Full Validation)	Project Mana	iger: Eve Mosk	AL	's (8021)	(Gas only)	RO / MRO)			SIMS)	nary	,PO4,SO4)	2 PCB's	uest				
Accredit	ation P	Othe	r	Sampler: J On Ice:	EFF BAG	D No	THAB	HdT +	RO / DI	118.1)	504.1)	r 8270 \$	6	03,NO2	s / 808		(YC			ar N)
Date	(Type)_ Time	Matrix	Sample Request ID	Sample Tem Arcel 65/17 Container Type and # Mcork kt	Preservative Type	HEAL NO.	BTEX + WITBE	BTEX + MTBE	TPH 8015B (G	TPH (Method 4	EDB (Method (PAH's (8310 o	RCRA 8 Metal	Anions (F,CI,N	8081 Pesticide	8260B (VOA)	8270 (Semi-VC			Air Bubbles (Y
12/2017	1438	SOIL	GRAB @ 40'	402×1	COOL	201	X		X						-					
											-				_			+		
																		+		
														_						
																		-		
Date: 6/4/2017 Date: 6/4/17 17	Time: 1847 Time: 1915	Relinquish Reliquish Reliquish samples sub	ed by: Blogg ed by: Mothe Wasters mitted to Hall Environmental may be sub	Received by: Mustur Received by: Contracted to other a	Waete	Date Time 9/2017 1847 Date Time 0/10/05/17 0730 es. This serves as notice of this	Rer	JBS	S: E V EU	D : D : meur	BP VH 7:		NE - (VR 00	COA M 18		E:	STEVE	. Mas 84 resort.	FAL



June 07, 2017

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

RE: MUDGE A 2

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

OrderNo.: 1706219

Dear Steven Moskal:

Hall Environmental Analysis Laboratory received 1 sample(s) on 6/6/2017 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 <u>www.hallenvironmental.com</u> 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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report

Lab Order 1706219

Date Reported: 6/7/2017

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: GRAB @ 42' **CLIENT:** Blagg Engineering Collection Date: 6/5/2017 4:31:00 PM **Project:** MUDGE A 2 Received Date: 6/6/2017 7:15:00 AM Lab ID: 1706219-001 Matrix: SOIL PQL Qual Units Result **DF** Date Analyzed Batch Analyses Analyst: MRA EPA METHOD 300.0: ANIONS 6/6/2017 12:01:16 PM Chloride 510 30 mg/Kg 20 32133 EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: TOM Diesel Range Organics (DRO) 210 9.6 mg/Kg 1 6/6/2017 9:10:01 AM 32126 Motor Oil Range Organics (MRO) 6/6/2017 9:10:01 AM 32126 ND 48 mg/Kg 1 32126 Surr: DNOP %Rec 6/6/2017 9:10:01 AM 90.9 70-130 1 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB mg/Kg 6/6/2017 11:27:39 AM 32111 Gasoline Range Organics (GRO) 4100 190 50 Surr: BFB 345 54-150 S %Rec 50 6/6/2017 11:27:39 AM 32111 EPA METHOD 8021B: VOLATILES Analyst: NSB 6/6/2017 11:27:39 AM 32111 Benzene 11 0.95 mg/Kg 50

Toluene 100 1.9 mg/Kg 50 6/6/2017 11:27:39 AM 32111 6/6/2017 11:27:39 AM 32111 Ethylbenzene 27 1.9 mg/Kg 50 Xylenes, Total 330 38 mg/Kg 50 6/6/2017 11:27:39 AM 32111 50 6/6/2017 11:27:39 AM 32111 Surr: 4-Bromofluorobenzene 140 66.6-132 S %Rec

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 5
	ND	Not Detected at the Reporting Limit	Р	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

Client: Blagg Engineering Project: MUDGE A 2

Sample ID MB-32133	SampType: mblk	TestCode: EPA Method	300.0: Anions	
Client ID: PBS	Batch ID: 32133	RunNo: 43284		
Prep Date: 6/6/2017	Analysis Date: 6/6/2017	SeqNo: 1363498	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	ND 1.5			
Sample ID LCS-32133	SampType: Ics	TestCode: EPA Method	300.0: Anions	
Sample ID LCS-32133 Client ID: LCSS	SampType: Ics Batch ID: 32133	TestCode: EPA Method RunNo: 43284	300.0: Anions	
Sample ID LCS-32133 Client ID: LCSS Prep Date: 6/6/2017	SampType: Ics Batch ID: 32133 Analysis Date: 6/6/2017	TestCode: EPA Method RunNo: 43284 SeqNo: 1363499	300.0: Anions Units: mg/Kg	
Sample ID LCS-32133 Client ID: LCSS Prep Date: 6/6/2017 Analyte	SampType: Ics Batch ID: 32133 Analysis Date: 6/6/2017 Result PQL SPK value	TestCode: EPA Method RunNo: 43284 SeqNo: 1363499 SPK Ref Val %REC LowLimit	300.0: Anions Units: mg/Kg HighLimit %RPD	RPDLimit Qual

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

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mit as specified

Client: Blagg Engineering Project: MUDGE A 2

Sample ID LCS-32126	SampT	ype: LC	S	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS	Batch	ID: 32	126	F	RunNo: 4	3268				
Prep Date: 6/6/2017	Analysis D	ate: 6/	6/2017	S	SeqNo: 1	362102	Units: mg/k	۲g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	85.6	73.2	114			
Surr: DNOP	3.6		5.000		72.9	70	130			
Sample ID MR-32126	SamnT	VDA. ME	RI K	Tes	Code: E	PA Mothod	8015M/D · Di	osol Rang	Organics	
Sample ID MB-32126	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Sample ID MB-32126 Client ID: PBS	SampT Batch	ype: ME	3LK 126	Tes F	tCode: El RunNo: 4	PA Method 3268	8015M/D: Di	esel Rang	e Organics	
Sample ID MB-32126 Client ID: PBS Prep Date: 6/6/2017	SampT Batch Analysis D	ype: ME ID: 32 ' ate: 6 /	3LK 126 6/2017	Tes F	tCode: E RunNo: 4 SeqNo: 1	PA Method 3268 362103	8015M/D: Di Units: mg/H	esel Rang Kg	e Organics	
Sample ID MB-32126 Client ID: PBS Prep Date: 6/6/2017 Analyte	SampT Batch Analysis D Result	ype: ME ID: 32 ate: 6 / PQL	3LK 126 6/2017 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 3268 362103 LowLimit	8015M/D: Di Units: mg/H HighLimit	esel Rang (g %RPD	e Organics RPDLimit	Qual
Sample ID MB-32126 Client ID: PBS Prep Date: 6/6/2017 Analyte Diesel Range Organics (DRO)	SampT Batch Analysis D Result ND	ype: ME 1D: 32 ate: 6/ PQL 10	BLK 126 6/2017 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 3268 362103 LowLimit	8015M/D: Di Units: mg/F HighLimit	esel Rang (g %RPD	e Organics RPDLimit	Qual
Sample ID MB-32126 Client ID: PBS Prep Date: 6/6/2017 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO)	SampT Batch Analysis D Result ND ND	ype: ME 1D: 32' ate: 6/ PQL 10 50	BLK 126 6/2017 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 3268 362103 LowLimit	8015M/D: Di Units: mg/F HighLimit	esel Rang (g %RPD	e Organics RPDLimit	Qual

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

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WO#: 1706219 07-Jun-17

Client: Blagg Engineering Project: MUDGE A 2

Sample ID MB-32111	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID: PBS	Batcl	n ID: 32	111	F	RunNo: 4	3287				
Prep Date: 6/5/2017	Analysis D	Date: 6/	6/2017	S	SeqNo: 1	363134	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO) Surr: BFB	ND 990	5.0	1000		99.2	54	150			
Sample ID LCS-32111	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	e	
Sample ID LCS-32111 Client ID: LCSS	Samp1 Batcl	ype: LC	S 111	Tes F	tCode: El RunNo: 4	PA Method 3287	8015D: Gaso	line Rang	e	
Sample ID LCS-32111 Client ID: LCSS Prep Date: 6/5/2017	SampT Batcl Analysis D	ype: LC n ID: 32 Date: 6/	S 111 6/2017	Tes F S	tCode: El RunNo: 4 SeqNo: 1	PA Method 3287 363135	8015D: Gaso Units: mg/M	oline Rang	e	
Sample ID LCS-32111 Client ID: LCSS Prep Date: 6/5/2017 Analyte	SampT Batcl Analysis D Result	Type: LC n ID: 32 Date: 6/ PQL	S 111 6/2017 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 3287 363135 LowLimit	8015D: Gaso Units: mg/k HighLimit	oline Rang (g %RPD	e RPDLimit	Qual
Sample ID LCS-32111 Client ID: LCSS Prep Date: 6/5/2017 Analyte Gasoline Range Organics (GRO)	SampT Batcl Analysis D Result 26	Type: LC n ID: 32 Date: 6/ PQL 5.0	S 111 6/2017 SPK value 25.00	Tes F S SPK Ref Val 0	tCode: El RunNo: 4 SeqNo: 1 %REC 105	PA Method 3287 363135 LowLimit 76.4	8015D: Gaso Units: mg/H HighLimit 125	oline Rang (g %RPD	e RPDLimit	Qual

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

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

Client: Blagg Engineering **Project:** MUDGE A 2

Sample ID MB-32111	Samp	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: PBS	Batc	h ID: 32	111	F	RunNo: 4	3287				
Prep Date: 6/5/2017	Analysis [Date: 6/	6/2017	S	SeqNo: 1	363144	Units: mg/K	g		
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		124	66.6	132			
Sample ID LCS-32111	SampT	Type: LC	S	Tes	tCode: El	PA Method	8021B: Volat	iles		
Sample ID LCS-32111 Client ID: LCSS	Samp ^T Batcl	Type: LC	S 111	Tes F	tCode: El RunNo: 4	PA Method 3287	8021B: Volat	iles		
Sample ID LCS-32111 Client ID: LCSS Prep Date: 6/5/2017	Samp] Batcl Analysis [Type: LC h ID: 32 Date: 6/	S 111 6/2017	Tes F S	tCode: El RunNo: 4 SeqNo: 1	PA Method 3287 363145	8021B: Volat	iles g		
Sample ID LCS-32111 Client ID: LCSS Prep Date: 6/5/2017 Analyte	Samp Batcl Analysis D Result	Fype: LC h ID: 32 Date: 6/ PQL	2 5 111 6/2017 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 3287 363145 LowLimit	8021B: Volat Units: mg/K HighLimit	iles g %RPD	RPDLimit	Qual
Sample ID LCS-32111 Client ID: LCSS Prep Date: 6/5/2017 Analyte Benzene	Samp Batcl Analysis E Result 1.0	Fype: LC h ID: 32 Date: 6/ PQL 0.025	S 111 6/2017 SPK value 1.000	Tes F S SPK Ref Val 0	tCode: El RunNo: 4 SeqNo: 1: %REC 102	PA Method 3287 363145 LowLimit 80	8021B: Volat Units: mg/K HighLimit 120	iles g %RPD	RPDLimit	Qual
Sample ID LCS-32111 Client ID: LCSS Prep Date: 6/5/2017 Analyte Benzene Toluene	SampT Batcl Analysis D Result 1.0 1.0	Type: LC h ID: 32 Date: 6/ PQL 0.025 0.050	S 111 6/2017 SPK value 1.000 1.000	Tes F S SPK Ref Val 0 0	tCode: El RunNo: 4 SeqNo: 1 %REC 102 104	PA Method 3287 363145 LowLimit 80 80	8021B: Volat Units: mg/K HighLimit 120 120	illes g %RPD	RPDLimit	Qual
Sample ID LCS-32111 Client ID: LCSS Prep Date: 6/5/2017 Analyte Benzene Toluene Ethylbenzene	SampT Batcl Analysis E Result 1.0 1.0 1.1	Fype: LC h ID: 32 Date: 6/ PQL 0.025 0.050 0.050	S 111 6/2017 SPK value 1.000 1.000 1.000	Tes F S SPK Ref Val 0 0 0 0	tCode: El RunNo: 4: SeqNo: 1: %REC 102 104 105	PA Method 3287 363145 LowLimit 80 80 80	8021B: Volat Units: mg/K HighLimit 120 120 120	illes g %RPD	RPDLimit	Qual
Sample ID LCS-32111 Client ID: LCSS Prep Date: 6/5/2017 Analyte Benzene Toluene Ethylbenzene Xylenes, Total	Samp Batcl Analysis E Result 1.0 1.0 1.1 3.2	Type: LC h ID: 32 Date: 6/ PQL 0.025 0.050 0.050 0.10	S 111 6/2017 SPK value 1.000 1.000 1.000 3.000	Tes F SPK Ref Val 0 0 0 0 0	tCode: El RunNo: 4: SeqNo: 1: %REC 102 104 105 108	PA Method 3287 363145 LowLimit 80 80 80 80 80	8021B: Volat Units: mg/K HighLimit 120 120 120 120	illes g %RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- Η 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
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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WO#: 1706219

07-Jun-17

HALL ENVIRONMENTA ANALYSIS LABORATORY	Hall Envir L TEL: 505- Website	onmental Analysi 4901 Albuquerqu 345-3975 FAX: 5 :: www.hallenviro	s Laboratory Hawkins NE e, NM 87109 05-345-4107 nmental.com	Samp	ple Log-In Check List		
Client Name: BLAGG	Work Order	Number: 17062	219		RcptNo:	I	
Received By: Anne Thor	ne 6/6/2017 7:15	:00 AM	a	m An	-		
Completed By: Anne Thor	ne 6/6/2017 7:31	:30 AM	0	an Mar			
Reviewed By:	6/6/17						
Chain of Custody							
1. Custody seals intact on sa	ample bottles?	Yes		No 🗌	Not Present		
2. Is Chain of Custody comp	lete?	Yes	\checkmark	No	Not Present		
How was the sample deliv	ered?	Cour	ier				
Log In							
4. Was an attempt made to	cool the samples?	Yes	\checkmark	No 🗌	NA 🗆		
5. Were all samples received	d at a temperature of >0° C to 6.0	0°C Yes		No 🗌	NA 🗌		
6. Sample(s) in proper conta	iner(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	o bottles?	Yes		No 🗹	NA 🗌		
10.VOA vials have zero head	space?	Yes		No 🗔	No VOA Vials 🗹		
11. Were any sample contain	ers received broken?	Yes		No 🗹 –	# of preserved		
12. Does paperwork match bo (Note discrepancies on ch	ttle labels? ain of custody)	Yes		No 🗆	for pH: (<2 or	>12 unless noted)	
13. Are matrices correctly ider	ntified on Chain of Custody?	Yes	\checkmark	No 🗌	Adjusted?		
14. Is it clear what analyses w	ere requested?	Yes		No 🗌			
15. Were all holding times abl (If no, notify customer for a	e to be met? authorization.)	Yes		No 🛄	Checked by:	······································	
Special Handling (if app	<u>olicable)</u>						
16. Was client notified of all di	screpancies with this order?	Yes		No 🗌	NA 🗹		
Person Notified:	an a	Date					
By Whom:		Via: eMa	il Phone	Fax [In Person		
Regarding:	an a fa fa ann an an amar ann an an an an an an tha an an an an an an						
Client Instructions:							
17. Additional remarks:							
18. <u>Cooler Information</u> Cooler No Temp °C 1 1.0	Condition Seal Intact Sea Good Yes	I No Seal Da	ate Signa	ed By			
Page 1 of 1							

Client:	Hain BPA BUALLA Address	of-Cl merrixa Eng 5) 3	1 Interviny 20 - L(2,3	Turn-Around Time: SAME DAF Standard Krush Project Name: MUJGE A 2 Project #:				494 Te	01 H	awki	IA N www ns N 5-39	AL AL Al IE - 075 A	El YS lenv Alb F naly	ironr uque ax	IF nent erqui	All al.co e, Ni 345-	M 87	ME RA	NT	AL	Y
email o QA/QC I Stan Accredi	Package: dard tation AP	Othe	Level 4 (Full Validation)	Project Mana S76 Sampler: J On Ice:	ger: VE Mosk - BcA61 RYes	CAL C □ No.	+ HMB's (8021)	E + TPH (Gas only)	SRO / DRO / MRO)	418.1)	504.1)	or 8270 SIMS)	S	403,NO2,PO4,SO4)	es / 8082 PCB's		(VO)	E			(or N)
Date	(Type)	Matrix	Sample Request ID	Sample Tem Aroutuun Container Type and #	Preservative Type	-0 HEAL NO.	BTEX SMIBI	BTEX + MTBE	TPH 8015B (C	TPH (Method	EDB (Method	PAH's (8310 c	RCRA 8 Meta	Anions (F,CI,N	8081 Pesticide	8260B (VOA)	8270 (Semi-V	CHLORID			Air Bubbles (Y
<u>"Shr</u>	1631	Soil	GRAB & 42'	402-24		-201			×												
Date: 6/5/17 Date: 12/5/17	Time: 1744 Time: 1830	Relinquish Relinquish	ed by: Blogg ed by: Haets	Received by:	Jaet	Date Time 4/5/17 1744 Date Time 6/06/17 0715	Rer	mark:	s: 8	SKL SID	B -1	P V+ - 0	112	(18)	evi Evi	E	+ 2 : Z	57	47	105	ka (

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

June 19, 2017

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

RE: Mudge A 2

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

OrderNo.: 1706575

Dear Steven Moskal:

Hall Environmental Analysis Laboratory received 3 sample(s) on 6/10/2017 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 <u>www.hallenvironmental.com</u> 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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report

Lab Order 1706575

Date Reported: 6/19/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Client Sample ID: West Wall (26'-36') 5-pt Collection Date: 6/9/2017 3:54:00 PM Mudge A 2 **Project:** 1706575-001 Matrix: SOIL Received Date: 6/10/2017 11:15:00 AM Lab ID: Result PQL Qual Units **DF** Date Analyzed Batch Analyses

EPA METHOD 300.0: ANIONS					Analyst:	MRA
Chloride	45	30	mg/Kg	20	6/17/2017 8:56:00 PM	32341
EPA METHOD 8015M/D: DIESEL RANGE C	RGAN	CS			Analyst:	том
Diesel Range Organics (DRO)	32	9.3	mg/Kg	1	6/14/2017 9:36:20 PM	32258
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	6/14/2017 9:36:20 PM	32258
Surr: DNOP	100	70-130	%Rec	1	6/14/2017 9:36:20 PM	32258
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	6/14/2017 8:57:29 PM	32244
Surr: BFB	134	54-150	%Rec	1	6/14/2017 8:57:29 PM	32244
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	0.043	0.023	mg/Kg	1	6/14/2017 8:57:29 PM	32244
Toluene	ND	0.047	mg/Kg	1	6/14/2017 8:57:29 PM	32244
Ethylbenzene	0.050	0.047	mg/Kg	1	6/14/2017 8:57:29 PM	32244
Xylenes, Total	0.17	0.094	mg/Kg	1	6/14/2017 8:57:29 PM	32244
Surr: 4-Bromofluorobenzene	110	66.6-132	%Rec	1	6/14/2017 8:57:29 PM	32244

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 7
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	% Recovery outside of range due to dilution or matrix

Analytical Report

Lab Order 1706575

Date Reported: 6/19/2017

Hall Environmental Analysis Laboratory, Inc.

 CLIENT: Blagg Engineering
 Client Sample ID: West Base (38') 5-pt

 Project: Mudge A 2
 Collection Date: 6/9/2017 3:47:00 PM

 Lab ID: 1706575-002
 Matrix: SOIL
 Received Date: 6/10/2017 11:15:00 AM

 Analyses
 Result
 PQL
 Qual
 Units
 DF
 Date Analyzed
 Batch

				5	
	20	malla	20	Analyst:	MRA
E ORGANIC	s	ilig/kg	20	Analyst:	TOM
24	9.8	mg/Kg	1	6/14/2017 10:04:56 PM	32258
ND	49	mg/Kg	1	6/14/2017 10:04:56 PM	32258
97.3	70-130	%Rec	1	6/14/2017 10:04:56 PM	32258
E				Analyst:	NSB
5.0	4.9	mg/Kg	1	6/14/2017 9:21:16 PM	32244
146	54-150	%Rec	1	6/14/2017 9:21:16 PM	32244
				Analyst:	NSB
0.041	0.024	mg/Kg	1	6/14/2017 9:21:16 PM	32244
ND	0.049	mg/Kg	1	6/14/2017 9:21:16 PM	32244
0.091	0.049	mg/Kg	1	6/14/2017 9:21:16 PM	32244
0.40	0.098	mg/Kg	1	6/14/2017 9:21:16 PM	32244
112	66.6-132	%Rec	1	6/14/2017 9:21:16 PM	32244
	44 E ORGANIC 24 ND 97.3 E 5.0 146 0.041 ND 0.091 0.40 112	44 30 E ORGANICS 24 9.8 ND 49 97.3 70-130 E 5.0 4.9 146 54-150 0.041 0.024 ND 0.049 0.091 0.049 0.40 0.098 112 66.6-132	44 30 mg/Kg 24 9.8 mg/Kg ND 49 mg/Kg 97.3 70-130 %Rec 5E 5.0 4.9 mg/Kg 146 54-150 %Rec 0.041 0.024 mg/Kg 0.091 0.049 mg/Kg 0.091 0.049 mg/Kg 112 66.6-132 %Rec	44 30 mg/Kg 20 24 9.8 mg/Kg 1 ND 49 mg/Kg 1 97.3 70-130 %Rec 1 SE 5.0 4.9 mg/Kg 1 146 54-150 %Rec 1 0.041 0.024 mg/Kg 1 ND 0.049 mg/Kg 1 0.091 0.049 mg/Kg 1 0.40 0.098 mg/Kg 1 112 66.6-132 %Rec 1	Analyst: 44 30 mg/Kg 20 6/17/2017 9:08:24 PM E ORGANICS Analyst: 24 9.8 mg/Kg 1 6/14/2017 10:04:56 PM ND 49 mg/Kg 1 6/14/2017 10:04:56 PM 97.3 70-130 %Rec 1 6/14/2017 10:04:56 PM 97.6 MB Mg/Kg 1 6/14/2017 9:21:16 PM 146 54-150 %Rec 1 6/14/2017 9:21:16 PM 0.041 0.024 mg/Kg 1 6/14/2017 9:21:16 PM ND 0.049 mg/Kg 1 6/14/2017 9:21:16 PM 0.091 0.049 <

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank	
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2	2 of 7
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	, 01 /
	PQL	Practical Quanitative Limit	R	RPD outside accepted recovery limits	
	RL	Reporting Detection Limit	S	% Recovery outside of range due to dilution or matri	ix

Analytical R	leport
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Lab Order 1706575

Date Reported: 6/19/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Client Sample ID: South Wall (26'-36') 5-pt Collection Date: 6/9/2017 3:33:00 PM Mudge A 2 **Project:** 1706575-003 Matrix: SOIL Received Date: 6/10/2017 11:15:00 AM Lab ID: Result PQL Qual Units **DF** Date Analyzed Batch Analyses

				Analyst	MRA
600	30	mg/Kg	20	6/17/2017 9:20:48 PM	32341
ORGANIC	S			Analyst:	том
18	9.5	mg/Kg	1	6/14/2017 10:33:49 PM	32258
ND	48	mg/Kg	1	6/14/2017 10:33:49 PM	32258
95.9	70-130	%Rec	1	6/14/2017 10:33:49 PM	32258
				Analyst:	NSB
ND	4.6	mg/Kg	1	6/14/2017 9:44:50 PM	32244
120	54-150	%Rec	1	6/14/2017 9:44:50 PM	32244
				Analyst:	NSB
ND	0.023	mg/Kg	1	6/14/2017 9:44:50 PM	32244
ND	0.046	mg/Kg	1	6/14/2017 9:44:50 PM	32244
ND	0.046	mg/Kg	1	6/14/2017 9:44:50 PM	32244
ND	0.093	mg/Kg	1	6/14/2017 9:44:50 PM	32244
112	66.6-132	%Rec	1	6/14/2017 9:44:50 PM	32244
	600 DRGANIC 18 ND 95.9 ND 120 ND ND ND ND ND ND ND 112	600 30 DRGANICS 18 18 9.5 ND 48 95.9 70-130 ND 4.6 120 54-150 ND 0.023 ND 0.046 ND 0.046 ND 0.093 112 66.6-132	600 30 mg/Kg DRGANICS 18 9.5 mg/Kg ND 48 mg/Kg 95.9 70-130 %Rec ND 4.6 mg/Kg 120 54-150 %Rec ND 0.023 mg/Kg ND 0.046 mg/Kg ND 0.046 mg/Kg ND 0.093 mg/Kg ND 0.093 mg/Kg	600 30 mg/Kg 20 DRGANICS 1 1 18 9.5 mg/Kg 1 ND 48 mg/Kg 1 95.9 70-130 %Rec 1 ND 4.6 mg/Kg 1 120 54-150 %Rec 1 ND 0.023 mg/Kg 1 ND 0.046 mg/Kg 1 ND 0.046 mg/Kg 1 ND 0.093 mg/Kg 1 ND 0.093 mg/Kg 1 112 66.6-132 %Rec 1	Analyst: 600 30 mg/Kg 20 6/17/2017 9:20:48 PM DRGANICS Analyst: 18 9.5 mg/Kg 1 6/14/2017 10:33:49 PM ND 48 mg/Kg 1 6/14/2017 10:33:49 PM 95.9 70-130 %Rec 1 6/14/2017 10:33:49 PM ND 4.6 mg/Kg 1 6/14/2017 10:33:49 PM 120 54-150 %Rec 1 6/14/2017 9:44:50 PM 120 54-150 %Rec 1 6/14/2017 9:44:50 PM ND 0.023 mg/Kg 1 6/14/2017 9:44:50 PM ND 0.046 mg/Kg 1 6/14/2017 9:44:50 PM ND 0.093 mg/Kg 1 6/14/2017 9:44:50 PM ND 0.093 mg/Kg 1 6/14/2017 9:44:50 PM ND 0.093 mg/Kg <

lifiers:

- * 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 Quanitative Limit
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 7
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

Client: Blagg Engineering Project: Mudge A 2

Sample ID MB-32341	SampType: mblk	TestCode: EPA Method	300.0: Anions	
Client ID: PBS	Batch ID: 32341	RunNo: 43585		
Prep Date: 6/17/2017	Analysis Date: 6/17/2017	SeqNo: 1372898	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	ND 1.5			
Sample ID LCS-32341	SampType: Ics	TestCode: EPA Method	300.0: Anions	
Sample ID LCS-32341 Client ID: LCSS	SampType: Ics Batch ID: 32341	TestCode: EPA Method RunNo: 43585	300.0: Anions	
Sample ID LCS-32341 Client ID: LCSS Prep Date: 6/17/2017	SampType: Ics Batch ID: 32341 Analysis Date: 6/17/2017	TestCode: EPA Method RunNo: 43585 SeqNo: 1372899	300.0: Anions Units: mg/Kg	
Sample ID LCS-32341 Client ID: LCSS Prep Date: 6/17/2017 Analyte	SampType: Ics Batch ID: 32341 Analysis Date: 6/17/2017 Result PQL SPK value	TestCode: EPA Method RunNo: 43585 SeqNo: 1372899 SPK Ref Val %REC LowLimit	300.0: Anions Units: mg/Kg HighLimit %RPD	RPDLimit Qual

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 Quanitative Limit
- RL Reporting Detection Limit

- 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
 - R RPD outside accepted recovery limits
 - S % Recovery outside of range due to dilution or matrix

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WO#: 1706575

19-Jun-17

Blagg Engineering **Client:** Mudge A 2 **Project:**

Sample ID MB-32258	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 32258	RunNo: 43496
Prep Date: 6/13/2017	Analysis Date: 6/14/2017	SeqNo: 1369816 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	10 10.00	104 70 130
Sample ID LCS-32258	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 32258	RunNo: 43496
Prep Date: 6/13/2017	Analysis Date: 6/14/2017	SeqNo: 1370823 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	54 10 50.00	0 109 73.2 114
Surr: DNOP	4.9 5.000	98.7 70 130
Sample ID LCS-32292	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 32292	RunNo: 43528
Prep Date: 6/14/2017	Analysis Date: 6/15/2017	SeqNo: 1372096 Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	4.1 5.000	81.4 70 130
Sample ID MB-32292	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 32292	RunNo: 43528
Prep Date: 6/14/2017	Analysis Date: 6/15/2017	SeqNo: 1372097 Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	8.7 10.00	87.4 70 130

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- RL Reporting Detection Limit

- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- J
 - Р
 - R RPD outside accepted recovery limits
 - S % Recovery outside of range due to dilution or matrix

1706575 19-Jun-17

WO#:

Analyte detected below quantitation limits Sample pH Not In Range

Page 5 of 7

Client: Blagg Engineering Project: Mudge A 2

Sample ID MB-32244	Samp	уре: МЕ	BLK	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	e	
Client ID: PBS	Batc	n ID: 32	244	F	RunNo: 4	3491				
Prep Date: 6/13/2017	Analysis D	Date: 6/	14/2017	5	SeqNo: 1	370036	Units: mg/k	٢g		
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		110	54	150			
Sample ID LCS-32244	Samp1	ype: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	e	
Sample ID LCS-32244 Client ID: LCSS	Samp1 Batcl	ype: LC	:S 244	Tes F	tCode: El RunNo: 4	PA Method 3491	8015D: Gaso	oline Rang	e	
Sample ID LCS-32244 Client ID: LCSS Prep Date: 6/13/2017	Samp] Batcl Analysis [ype: LC n ID: 32: Date: 6/	S 244 14/2017	Tes F S	tCode: El RunNo: 4 SeqNo: 1	PA Method 3491 370037	8015D: Gaso Units: mg/M	oline Rang	e	
Sample ID LCS-32244 Client ID: LCSS Prep Date: 6/13/2017 Analyte	SampT Batcl Analysis D Result	Type: LC n ID: 32 Date: 6/ PQL	244 14/2017 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 3491 370037 LowLimit	8015D: Gaso Units: mg/M HighLimit	oline Rang (g %RPD	e RPDLimit	Qual
Sample ID LCS-32244 Client ID: LCSS Prep Date: 6/13/2017 Analyte Gasoline Range Organics (GRO)	SampT Batcl Analysis D Result 25	Type: LC n ID: 32 Date: 6/ PQL 5.0	S 244 14/2017 SPK value 25.00	Tes F S SPK Ref Val 0	tCode: El RunNo: 4 SeqNo: 1 %REC 98.8	PA Method 3491 370037 LowLimit 76.4	8015D: Gaso Units: mg/F HighLimit 125	oline Rang (g %RPD	e RPDLimit	Qual

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 Quanitative Limit
- RL Reporting Detection Limit

- 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
 - R RPD outside accepted recovery limits
 - S % Recovery outside of range due to dilution or matrix

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WO#: 1706575 19-Jun-17

Client: Blagg Engineering Project: Mudge A 2

Sample ID MB-32244	Samp	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: PBS	Batc	h ID: 32	244	F	aunNo: 4	3491				
Prep Date: 6/13/2017	Analysis [Date: 6/	14/2017	S	SeqNo: 1	370062	Units: mg/K	g		
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		108	66.6	132			
Sample ID LCS-32244	Samp	Гуре: LC	S	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Sample ID LCS-32244 Client ID: LCSS	Samp [¬] Batc	Гуре: LC h ID: 32	S 244	Tesi	tCode: El	PA Method 3491	8021B: Volat	tiles		
Sample ID LCS-32244 Client ID: LCSS Prep Date: 6/13/2017	Samp Batc Analysis [Гуре: LC h ID: 32: Date: 6/	S 244 14/2017	Tesi R S	tCode: El tunNo: 4 GeqNo: 1	PA Method 3491 370063	8021B: Volat	tiles		
Sample ID LCS-32244 Client ID: LCSS Prep Date: 6/13/2017 Analyte	Samp Batc Analysis [Result	Type: LC h ID: 32: Date: 6/ PQL	S 244 14/2017 SPK value	Tes R S SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 3491 370063 LowLimit	8021B: Volat Units: mg/K HighLimit	tiles (g %RPD	RPDLimit	Qual
Sample ID LCS-32244 Client ID: LCSS Prep Date: 6/13/2017 Analyte Benzene	Samp Batcl Analysis I Result 1.0	Type: LC h ID: 32 Date: 6/ PQL 0.025	S 244 14/2017 SPK value 1.000	Tes R S SPK Ref Val 0	tCode: El RunNo: 4 SeqNo: 1: %REC 99.6	PA Method 3491 370063 LowLimit 80	8021B: Volat Units: mg/K HighLimit 120	tiles (g %RPD	RPDLimit	Qual
Sample ID LCS-32244 Client ID: LCSS Prep Date: 6/13/2017 Analyte Benzene Toluene	Samp Batcl Analysis I Result 1.0 1.0	Type: LC h ID: 32 Date: 6/ PQL 0.025 0.050	S 244 14/2017 SPK value 1.000 1.000	Tes F S SPK Ref Val 0 0	Code: El RunNo: 4 SeqNo: 1 %REC 99.6 99.8	PA Method 3491 370063 LowLimit 80 80	8021B: Volat Units: mg/K HighLimit 120 120	tiles (g %RPD	RPDLimit	Qual
Sample ID LCS-32244 Client ID: LCSS Prep Date: 6/13/2017 Analyte Benzene Toluene Ethylbenzene	Samp Batcl Analysis I Result 1.0 1.0 0.98	Fype: LC h ID: 32: Date: 6/ PQL 0.025 0.050 0.050	S 244 14/2017 SPK value 1.000 1.000 1.000	Tes F S SPK Ref Val 0 0 0 0	tCode: El RunNo: 4 SeqNo: 1 %REC 99.6 99.8 97.8	PA Method 3491 370063 LowLimit 80 80 80	8021B: Volat Units: mg/K HighLimit 120 120 120	tiles (g %RPD	RPDLimit	Qual
Sample ID LCS-32244 Client ID: LCSS Prep Date: 6/13/2017 Analyte Benzene Toluene Ethylbenzene Xylenes, Total	Samp Batcl Analysis I Result 1.0 1.0 0.98 2.9	Type: LC h ID: 32: Date: 6/ PQL 0.025 0.050 0.050 0.10	S 244 14/2017 SPK value 1.000 1.000 1.000 3.000	Tes R SPK Ref Val 0 0 0 0 0 0	tCode: El RunNo: 4 SeqNo: 1: %REC 99.6 99.8 97.8 97.2	PA Method 3491 370063 LowLimit 80 80 80 80 80	8021B: Volat Units: mg/K HighLimit 120 120 120 120	tiles (g %RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- Reporting Detection Limit RL

- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

WO#: 1706575 19-Jun-17

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HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Enviro TEL: 505- Website	onmental Analysis Labo 4901 Hawk Albuquerque, NM 345-3975 FAX: 505-34 : www.hallenvironmen	oratory kins NE 187109 Sam 5-4107 tal.com	ple Log-In C	heck List
Client Name: BLAGG	Work Order	Number: 1706575		RcptNo:	1
Received By: Andy Freem Completed By: Ashley Gall Reviewed By:	$\begin{array}{cccc} \text{pan} & 6/10/2017 & 11:\\ \text{egos} & 6/12/2017 & 11:\\ & & & & & & & \\ & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & & \\ & & & & & & & & & \\ & & & & & & & & & \\ & & & & & & & & & \\ & & & & & & & & & \\ & & & & & & & & & \\ & & & & & & & & & \\ & & & & & & & & & \\ & & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ \end{array}$	15:00 AM 39:32 AM	and for		
Chain of Custody 1. Custody seals intact on sau 2. Is Chain of Custody comple 3. How was the sample delive	nple bottles? ete? red?	Yes Yes Courier	No 🗌 No 🗍	Not Present ☑	
4 Was an attempt made to c	ool the samples?	Vec V	No 🗌	NA	
5. Were all samples received	at a temperature of >0° C to 6.0	P°C Yes ☑	No 🗆		
6. Sample(s) in proper contai	ner(s)?	Yes 🗹	No 🗌		
7. Sufficient sample volume for 8. Are samples (except VOA	or indicated test(s)? and ONG) properly preserved?	Yes 🗹 Yes 🗹	No 🗌		
9. Was preservative added to	bottles?	Yes 🗌	No 🗹	NA 🗌	
10.VOA vials have zero heads 11. Were any sample containe	pace? rs received broken?	Yes 🗌 Yes 🗆	No 🗌 No 🗹	No VOA Vials # of preserved bottles checked	
12. Does paperwork match bot (Note discrepancies on cha	tle labels? in of custody)	Yes 🗹	No 🗌	for pH: (<2 o	r >12 unless noted)
13. Are matrices correctly iden	ified on Chain of Custody?	Yes 🗹	No 🗌	Adjusted?	
 14. Is it clear what analyses we 15. Were all holding times able (If no, notify customer for a 	re requested? to be met? uthorization.)	Yes ☑ Yes ☑		Checked by:	
Special Handling (if app	licable)	Yee 🗍	No 🗔		
Person Notified: By Whom:		Date Date Via:	Phone 🗌 Fax	In Person	*
Regarding: Client Instructions: 17. Additional remarks:			n han han bernen der an han han han han han han han han han		-
18. <u>Cooler Information</u> Cooler No Temp °C 1 2.8	Condition Seal Intact Sea Good Yes	I No Seal Date	Signed By		
Page 1 of 1					

If necessary, samples submitted to Hall Environmental may be st	99/2017 1730 July Blogy Date: Time: Refinquished by:					1533 1 SOUTH Well (26-36')	(547 WEST Base (38') 5-P	49/2017 1554 SOIL West Wall (26-36') F	Date Time Matrix Sample Request ID	EDD (Type)	NELAP Other	Accorditation	QA/QC Package:	email or Fax#	Phone # (505) 320 - 1183		Malling Address:	BLAGE ENGINEERING INC	Client BP AMERICA	Chain-of-Custody Record
bcontracted to other sk	Received by:						4	Hozx1	Container Type and #	Sample Tem	On loe:		STEV	Project Mana		Project #:	I'MUN	Project Name	TE Standard	Turn-Around
ccredited laboratories	XII					-	-	COOL	Preservative Type	perature: 2-3	ST Duries	- 2	Masical	iger:			SE A X	, ;;;	KRush	Time:
5. This serves as notice of this	Date Time 6/16/17 1/15 Date Time					-003	-002	-001	HEAL NO.		I No								Stradered THT	SALLE & 6/12
possibi	Wa					-	-	×	BTEX + MT	8E	ŦŢŅ	B's	(8021)						
itty. A	S E		-	_		_			BTEX + MT	BE	+ TP	H ((Gas of	nly)		Tel	490			
Ty sub-	EME	-	-	+	\vdash	-	F	×	TPH 8015B	(G	RO /	DR	D / MF	RO)	10	505	1 Hav			
contrac	A B	-	+	+-	$\left \right $		-		EDB (Metho	od 4	18.1)					345	vkins	W	A	E
ted dat	LI	 -	+	+	+				PAH's (831	0 01	827) SI	MS)			3975	NE	ww.ha	Þ!	
a will b	- O			1					RCRA 8 Me	etals	1				Anal		- Alt	allenv	X	Π
e dean	OLE								Anions (F,C	I,N	D3, NO	D ₂ ,F	PO4,S0	O₄)	ysis	Fax .	none	iron	SIS	Z
ty notat	M- 6								8081 Pestic	ide	s / 80	82	PCB's		Requ	505-	erque	menta		
ed on	III SA								8260B (VO/	A)			-		uest	345	NN	al.co	AB	Ď
the ans	109		-	-		_			8270 (Semi	-VC	A)					107	871	3	0	
lytical r	STEN	 -	+			-	F	×	CHLORID	E							60		SI	
troce.	in 3	-	 +	+-			-												0	F
	OSKA		+	-															R	
	r								Air Bubbles	(Y	or N)									

and the second second



June 21, 2017

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

RE: Mudge A 2

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

OrderNo.: 1706650

Dear Steven Moskal:

Hall Environmental Analysis Laboratory received 2 sample(s) on 6/13/2017 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 <u>www.hallenvironmental.com</u> 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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report
Lab Order 1706650

Date Reported: 6/21/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Project: Mudge A 2

Client Sample ID: NE BASE 5-pt @ 37' Collection Date: 6/12/2017 10:16:00 AM Received Date: 6/13/2017 7:55:00 AM

Matrix:	SOIL		Receiv	ved Date: 6/13/2017 7:55:00 AM
Result	PQL	Qual I	Units	DF Date Analyzed Batch
				Analyst: MRA
74	30		mg/Kg	20 6/20/2017 3:51:18 PM 32385
ORGANIC	S			Analyst: TOM
89	9.9		mg/Kg	1 6/14/2017 11:59:55 PM 32258
65	50		mg/Kg	1 6/14/2017 11:59:55 PM 32258
97.1	70-130		%Rec	1 6/14/2017 11:59:55 PM 32258
E				Analyst: NSB
200	24		mg/Kg	5 6/15/2017 11:18:36 PM 32257
296	54-150	S	%Rec	5 6/15/2017 11:18:36 PM 32257
				Analyst: NSB
0.19	0.12		mg/Kg	5 6/14/2017 5:47:27 PM 32257
0.56	0.24		mg/Kg	5 6/14/2017 5:47:27 PM 32257
1.2	0.24		mg/Kg	5 6/14/2017 5:47:27 PM 32257
18	0.48		mg/Kg	5 6/15/2017 11:18:36 PM 32257
132	66.6-132		%Rec	5 6/14/2017 5:47:27 PM 32257
	Matrix: Result 74 ORGANIC 89 65 97.1 E 200 296 0.19 0.56 1.2 18 132	Matrix: SOIL Result PQL 74 30 ORGANICS 99 65 50 97.1 70-130 200 24 296 54-150 0.19 0.12 0.56 0.24 1.2 0.24 18 0.48 132 66.6-132	Matrix: SOIL Result PQL Qual Qual	Matrix: SOIL Receive Result PQL Qual Units 74 30 mg/Kg 74 30 mg/Kg 0RGANICS mg/Kg 89 9.9 mg/Kg 65 50 mg/Kg 97.1 70-130 %Rece 200 24 mg/Kg 296 54-150 S %Rec 0.19 0.12 mg/Kg 0.56 0.24 mg/Kg 1.2 0.24 mg/Kg 18 0.48 mg/Kg 132 66.6-132 %Rec

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 6
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative 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

Ana	lytical	Report	

Lab Order 1706650

Date Reported:	6/21/2017
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Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: N. Wall 5-pt (26'-36') **CLIENT:** Blagg Engineering Collection Date: 6/12/2017 10:24:00 AM Mudge A 2 **Project:** Lab ID: 1706650-002 Matrix: SOIL Received Date: 6/13/2017 7:55:00 AM Result PQL Qual Units **DF** Date Analyzed Batch Analyses EPA METHOD 300 0. ANIONS Analyst MRA

EFA METHOD 300.0. ANIONS					Analyst.	INITIA
Chloride	410	30	mg/Kg	20	6/20/2017 4:03:43 PM	32385
EPA METHOD 8015M/D: DIESEL RANGE	ORGANIC	S			Analyst:	TOM
Diesel Range Organics (DRO)	20	10	mg/Kg	1	6/15/2017 12:28:15 AM	32258
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	6/15/2017 12:28:15 AM	32258
Surr: DNOP	94.3	70-130	%Rec	1	6/15/2017 12:28:15 AM	32258
EPA METHOD 8015D: GASOLINE RANGI	E				Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	6/16/2017 12:06:20 AM	32257
Surr: BFB	116	54-150	%Rec	1	6/16/2017 12:06:20 AM	32257
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.024	mg/Kg	1	6/14/2017 6:35:26 PM	32257
Toluene	ND	0.047	mg/Kg	1	6/14/2017 6:35:26 PM	32257
Ethylbenzene	ND	0.047	mg/Kg	1	6/14/2017 6:35:26 PM	32257
Xylenes, Total	ND	0.095	mg/Kg	1	6/14/2017 6:35:26 PM	32257
Surr: 4-Bromofluorobenzene	118	66.6-132	%Rec	1	6/14/2017 6:35:26 PM	32257

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associa
	D	Sample Diluted Due to Matrix	E	Value above quantitation rang
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quanti
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit

- S % Recovery outside of range due to dilution or matrix
- ated Method Blank
- ge
- itation limits Page 2 of 6
- W Sample container temperature is out of limit as specified

Client: Blagg Engineering **Project:** Mudge A 2

Sample ID MB-32385 Client ID: PBS	SampType: mblk Batch ID: 32385	TestCode: EPA Method RunNo: 43638	300.0: Anions	
Prep Date: 6/20/2017	Analysis Date: 6/20/2017	SeqNo: 1375850	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	ND 1.5			
Sample ID LCS-32385	SampType: Ics	TestCode: EPA Method	300.0: Anions	
Sample ID LCS-32385 Client ID: LCSS	SampType: Ics Batch ID: 32385	TestCode: EPA Method RunNo: 43638	300.0: Anions	
Sample ID LCS-32385 Client ID: LCSS Prep Date: 6/20/2017	SampType: Ics Batch ID: 32385 Analysis Date: 6/20/2017	TestCode: EPA Method RunNo: 43638 SeqNo: 1375851	300.0: Anions Units: mg/Kg	
Sample ID LCS-32385 Client ID: LCSS Prep Date: 6/20/2017 Analyte	SampType: Ics Batch ID: 32385 Analysis Date: 6/20/2017 Result PQL SPK value	TestCode: EPA Method RunNo: 43638 SeqNo: 1375851 SPK Ref Val %REC LowLimit	300.0: Anions Units: mg/Kg HighLimit %RPD	RPDLimit Qual

Qualifiers:

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

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WO#: 1706650

Client: Project:

Sample ID MB-32258	SampTy	pe: ME	BLK	TestCode: EPA Method 8015M/D: Diesel Range Organics									
Client ID: PBS	Batch	ID: 32	258	RunNo: 43496									
Prep Date: 6/13/2017	Analysis Date: 6/14/2017			S	eqNo: 1	369816	Units: mg/K	g					
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	10		10.00		104	70	130						
Sample ID LCS-32258	SampTy	pe: LC	S	Test	Code: El	PA Method	8015M/D: Die	esel Range	e Organics				
Client ID: LCSS	Batch	ID: 32	258	R	unNo: 4	3496							
Prep Date: 6/13/2017	Analysis Da	ate: 6/14/2017 SeqNo: 1370823					Units: mg/K	g					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Diesel Range Organics (DRO)	54	10	50.00	0	109	73.2	114						
Surr: DNOP	4.9		5.000		98.7	70	130						

Qualifiers:

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

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WO#:

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Blagg Engineering Mudge A 2

Client: Blagg Engineering Project: Mudge A 2

Sample ID MB-32257	SampT	ype: ME	BLK	Tes	estCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch	ID: 32	257	RunNo: 43490									
Prep Date: 6/13/2017	Analysis D	ate: 6/	14/2017	5	SeqNo: 1	370009	Units: mg/k	(g					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Gasoline Range Organics (GRO) Surr: BFB	ND 960	5.0	1000		95.9	54	150						
Sample ID LCS-32257 SampType: LCS TestCode: EPA Me													
Sample ID LCS-32257	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e				
Sample ID LCS-32257 Client ID: LCSS	SampT Batch	ype: LC	S 257	Tes F	tCode: El RunNo: 4	PA Method 3490	8015D: Gasc	line Rang	e				
Sample ID LCS-32257 Client ID: LCSS Prep Date: 6/13/2017	SampT Batch Analysis D	ype: LC ID: 32: ate: 6/	S 257 14/2017	Tes F S	tCode: El RunNo: 4 SeqNo: 1	PA Method 3490 370010	8015D: Gaso Units: mg/K	oline Rang	e				
Sample ID LCS-32257 Client ID: LCSS Prep Date: 6/13/2017 Analyte	SampT Batch Analysis D Result	ype: LC 1D: 32: ate: 6/ PQL	S 257 14/2017 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 4 SeqNo: 1 %REC	PA Method 3490 370010 LowLimit	8015D: Gaso Units: mg/K HighLimit	oline Rang Kg %RPD	e RPDLimit	Qual			
Sample ID LCS-32257 Client ID: LCSS Prep Date: 6/13/2017 Analyte Gasoline Range Organics (GRO)	SampT Batch Analysis D Result 25	ype: LC 1 ID: 32: ate: 6/ PQL 5.0	S 257 14/2017 SPK value 25.00	Tes F S SPK Ref Val 0	tCode: El RunNo: 4 SeqNo: 1 %REC 100	PA Method 3490 370010 LowLimit 76.4	8015D: Gaso Units: mg/K HighLimit 125	Soline Rang	e RPDLimit	Qual			

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 Quanitative 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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Client: Blagg Engineering Project: Mudge A 2

Sample ID MB-32257	Samp	Гуре: МЕ	BLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batc	h ID: 32	257	RunNo: 43490								
Prep Date: 6/13/2017	Analysis [Date: 6/	14/2017	S	SeqNo: 1	370018	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	1.2		1.000		123	66.6	132					
Sample ID LCS-32257	Samp	Гуре: LC	S	Tes	tCode: El	PA Method	8021B: Vola	tiles				
Client ID: LCSS	Batc	h ID: 32	257	F	RunNo: 43490							
Prep Date: 6/13/2017	Analysis [Date: 6/	14/2017	S	SeqNo: 1	370019	Units: mg/M	٢g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	1.0	0.025	1.000	0	105	80	120					
Toluene	1.1	0.050	1.000	0	106	80	120					
Ethylbenzene	1.1	0.050	1.000	0	106	80	120					
Xylenes, Total	32	0.10	3 000	0	108	80	120					
,	0.2	0.10	0.000	0	100	00	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 Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
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- P Sample pH Not In Range
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HALL ENVIRONMENTAL ANALYSIS LABORATORY			Hall Environn TEL: 505-345 Website: w	Albuqu Albuqu -3975 FA ww.haller	alysis 1901 erque X: 50 tviron	Laborator Hawkins Nr NM 8710 5-345-410 mental.com	y E 9 S 7	amp	eck List				
Client Name:	BLAGG		Work Order Nu	mber: 1	7066	50			RcptNo:	1			
Received By:	Anne Thor	ne	6/13/2017 7:55:0	0 AM			Anni	Am					
Completed By:	Sophia Car	npuzano	6/13/2017 11:16:	14 AM			inchei	·	*				
Reviewed By:	ENM		0/13/17				Coper .						
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,													
Chain of Cus	tody												
1. Custody sea	als intact on sa	mple bottles?			Yes		No		Not Present				
2. Is Chain of C	Custody compl	lete?		1	Yes	\checkmark	No		Not Present				
3. How was the	e sample deliv	ered?		9	Courie	20							
Log In													
4. Was an atte	empt made to	cool the samples?	?	8	Yes		No		NA 🗆				
5. Were all sar	mples received	i at a temperature	e of >0° C to 6.0°C	١	es		No		NA 🗆				
6. Sample(s) in	n proper conta	iner(s)?			Yes		No						
7. Sufficient sa	mple volume f	for indicated test(s)?	,	res	\checkmark	No						
8. Are samples	(except VOA	and ONG) proper	rly preserved?	,	fes	\checkmark	No						
9. Was preserv	vative added to	bottles?			res		No	\checkmark	NA 🗆				
10.VOA vials ha	ave zero head	space?		,	res		No		No VOA Vials 🗹				
11. Were any sa	ample contain	ers received brok	en?		Yes		No	V	# of presented		1		
12.Does paperv	work match bo	ttle labels?			res	\checkmark	No		bottles checked for pH:				
(Note discre	pancies on ch	ain of custody)						_	(<2 0	r >12 unless noted)			
13. Are matrices	s correctly ider	tified on Chain of	Custody?		res		No		Adjusted ?				
14. Is it clear wh	ding times abl	ere requested?			res		No		Checked by:				
(If no, notify	customer for a	authorization.)			res		NO			·····	1		
Special Hand	lling (if app	licable)											
16. Was client n	otified of all di	screpancies with	this order?		res		No		NA 🗹				
Persor	Notified:		Da	ate			A PLOCHAGE						
By Wh	iom:		Vi	ia: 🗌	eMai	I 🗌 Pho	one 🗌	Fax	In Person	1			
Regard	ding:	äälikkelisikkilmuun munutatutu	a anna an ann an an ann an an an an an a				and the state of the		1115636,4.000 with lawning.com/stands/or	i			
Client	Instructions:							and a sum of the second sum					
17. Additional re	emarks:												
18. Cooler Info	rmation				15								
Cooler No	0 Temp °C 1.0	Good Yes	s intact Seal No.	o Sei	al Da	e S	igned E	Зy					
Page 1 of	f 1									<u> </u>			

Client: BP AMERICA BLAGE FAMERICA			Turn-Around				F	A		E		IF	20	NN 30				Y			
			Project Name):		www.hallenvironmental.com															
Mailing	Address			MUDG	EA 2		4901 Hawkins NE - Albuquerque, NM 87109														
				Project #:			Tel. 505-345-3975 Fax 505-345-4107														
Phone	#: (50	5) 320	- 1183				Analysis Request														
email o	or Fax#:			Project Mana	ger:		-	(ýlu	(0)					D ₄)							
QA/QC	Package: ndard		Level 4 (Full Validation)	57	EVE MOSI	KAL	s (8021	(Gas of	SO / ME			(SIMS)		PO4,SC	PCB's						
Accreditation			Sampler: On Ice:	JEFF Bi	Ally No	, BINH	Hd1 +	SO / DF	18.1)	04.1)	8270 S		D3.NO2,	8082		(Y)				or N)	
	(Type)			Sample Tem	perature:	1-0-		BE	G	d 4	5 pc	0 or	etals	UN'	ides	8	2	in			N
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX + TAF	BTEX + MT	TPH 8015B	TPH (Metho	EDB (Metho	PAH's (831)	RCRA 8 Me	Anions (F,C	8081 Pestic	8260B (VO/	8270 (Semi	CHUKIN			Air Bubbles
1/17	1016	SOIL	NE BASE S-PE @ 37	4 02=1	COOL	-001	X		X									X			
tı.	1024	11	N. Wall 5-p= (26-36)	11	(1)	-002	X		X									X		+	
																			_	_	
																				+	
Date: 5/2/17 Date:	Time: 1119 Time: 1817	Relinguist Jef Relinguist	H Blogg Nod by: Not WOWE	Received by:	Jaes	Date Time 7/12/17 1119 Date Time 0(4/13/17 0753	Rer	nark JBS	s: B V ELE	ID: Mer	BP VH Л:	lixo	NE 1-(VRA 201	00.07 1 .8M	-E	: 51	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M05 34	KAL	

If necessary, sandolesisubmitted 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.