District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

1

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

SEP 0 3 2015 Form C-141 Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

						OPERA	TOR		Initi	al Report 🛛 Final R	
Name of Co	ompany: B	Р	1	1.54 3 560 5	10.5	Contact: Jef	f Peace	-			
Address: 20	00 Energy	Court, Farmi	ington, N	M 87401		Telephone 1	No.: 505-326-94	479	1995	and the second second	
Facility Nat	me: Floran	ce J 48A	13/12			Facility Type: Natural gas well					
Surface Ow	ner: Feder	al	1.11.2	Mineral	Owner:	Federal	ALT IL ALL A	100	APING	o. 300452 ¥ 146	
2 2	A GU	ALL SA	12.4	LOC	ATIO	ON OF RELEASE 2					
Jnit Letter D	Section 23	Township 30N	Range 8W	Feet from the 960	North North	/South Line	Feet from the 1,105	East/ East	West Line	County: San Juan	
	3.41	Lati	itude 3	6.79293	1	_ Longitud	e_107.64238		1		
				NAT	FURE	OF REL	EASE				
ype of Rele	ase: conden	sate		IS STRA-	1000	Volume of	Release: unknow	vn	Volume I	Recovered: none	
Source of Release: Below Grade Tank (BGT) - 18 bbl, Tank B					Date and H unknown	lour of Occurrent	ce:	Date and 2014: 1:0	Hour of Discovery: May 7, 00 PM		
Vas Immedi	ate Notice C	iven?	Yes 🛛	No 🗌 Not R	equired	If YES, To	Whom?				
y Whom?	Buddy Shav	v				Date and H	lour:		Sector 1	Contraction of the	
Vas a Water	course Reac	hed?	Vac 🛛	1 No	5.1	If YES, Vo	olume Impacting	the Wat	ercourse.	10.6. M. B. T. H	
f a Watercou	urse was Imj	pacted, Descr	ibe Fully.*								
f a Watercou Describe Cau f impacts. S bove remedi xcavation w	urse was Imp use of Proble Soil analysis iation standa vas advanced	pacted, Descr em and Remea determine ch ards. Combin i through sand	ibe Fully.* dial Action iloride leve ed BTEX dstone bed	* n Taken.* Sampl els below remedi was above stand rock. Hydrogen	ing of th ation sta ards with peroxide	e soil beneath ndards, but T h 156.7 ppm v e was applied	the BGT was pe PH results of 54, vith benzene belo to the broken up	rformec 000 ppn ow stanc materia	l during ren n by 418.1 a lard at 0.50 l.	noval to determine the exister and 10,400 ppm by 8015D w ppm (via 8021B). A shallow	
f a Watercou Describe Cau of impacts. S bove remedi xcavation w Describe Are eroxide dete TEX and be	urse was Imp use of Proble Soil analysis iation standa vas advanced a Affected a ermine TPH enzene were	pacted, Descr em and Remen determine ch ards. Combin i through sand and Cleanup A levels to be b b below the sit	ibe Fully.* dial Action hloride leve ed BTEX dstone bed Action Tak pelow the s ie specific	* n Taken.* Sampl els below remedi was above stand rock. Hydrogen cen.* Sampling o site specific 5,000 remediation stan	ing of th iation sta ards with peroxide f the mai 0 ppm re dard as v	e soil beneath ndards, but T h 156.7 ppm v e was applied terial below th mediation sta well.	the BGT was pe PH results of 54, with benzene belo to the broken up ne BGT approxin ndard with 1,200	rformed 000 ppn ow stand materia nately 5 ppm vi	l during ren n by 418.1 a lard at 0.50 l. months afte a 8015B (8,	noval to determine the exister and 10,400 ppm by 8015D we ppm (via 8021B). A shallow er the application of hydroger 900 ppm via 418.1). Chloric	
f a Watercou Describe Cau f impacts. S bove remedi xcavation w Describe Are eroxide dete TEX and be hereby certi egulations a ublic health hould their or r the environ cederal, state.	urse was Imp use of Proble Soil analysis iation standa vas advanced a Affected a ermine TPH enzene were ify that the i ll operators or the envir operations h nment. In a or local lay	em and Remen determine ch ards. Combin i through sand and Cleanup A levels to be b below the sit nformation gi are required to ronment. The ave failed to a ddition, NMC vs and/or regu	ibe Fully.* dial Action loride leve ed BTEX dstone bed Action Tak below the s te specific ven above o report an acceptance adequately DCD accep lations.	* n Taken.* Sampl els below remedi was above stand brock. Hydrogen ten.* Sampling o site specific 5,000 remediation stan e is true and comp nd/or file certain te of a C-141 rep investigate and p stance of a C-141	ing of th iation sta ards with peroxide f the mai 0 ppm re dard as v oplete to t release n ort by th remediat report d	e soil beneath ndards, but T h 156.7 ppm v e was applied terial below th mediation sta well. he best of my totifications at e NMOCD m e contaminati loes not reliev	the BGT was pe PH results of 54, with benzene belo to the broken up ne BGT approxin ndard with 1,200 knowledge and u nd perform correc arked as "Final R on that pose a thu e the operator of	rformeco 000 ppm ow stance materia hately 5 ppm vi indersta ctive acc ceport" eeat to g respons	l during ren n by 418.1 a lard at 0.50 l. months afte a 8015B (8, and that purs- tions for rel does not rel round wate sibility for c	noval to determine the exister and 10,400 ppm by 8015D we ppm (via 8021B). A shallow er the application of hydroger 900 ppm via 418.1). Chloric suant to NMOCD rules and eases which may endanger ieve the operator of liability r, surface water, human healt compliance with any other	
f a Watercou Describe Cau f impacts. S bove remedi xcavation w Describe Are eroxide dete TEX and be hereby certi gulations a ublic health hould their or the environ ideral, state,	urse was Imp use of Proble Soil analysis iation standa vas advanced a Affected a ermine TPH enzene were ify that the i ll operators or the envir operations h nment. In a or local law	em and Remen determine ch ards. Combin i through sand and Cleanup A levels to be b below the sit nformation gi are required to onment. The ave failed to a ddition, NMC vs and/or regu	ibe Fully.* dial Action loride leve ed BTEX dstone bed Action Tak below the s te specific ven above o report an acceptance adequately DCD accep ilations.	* n Taken.* Sampl els below remedi was above stand brock. Hydrogen ten.* Sampling o site specific 5,000 remediation stan e is true and comp nd/or file certain te of a C-141 rep investigate and i stance of a C-141	ing of th aation sta ards with peroxide f the mai 0 ppm re dard as v olete to t release n ort by th remediat report d	e soil beneath ndards, but T h 156.7 ppm v e was applied terial below th mediation sta well. he best of my otifications at e NMOCD m e contaminati loes not reliev	the BGT was pe PH results of 54, with benzene belo to the broken up ne BGT approxim ndard with 1,200 knowledge and un a perform correct arked as "Final R on that pose a thu e the operator of OIL CON	rformeco 000 ppm ow stance materia hately 5 ppm vi indersta ctive acc ceat to g respons SERV	I during ren n by 418.1 a lard at 0.50 I. months afte a 8015B (8, a 8015B (8, itions for rel does not rel round wate isbility for c	noval to determine the exister and 10,400 ppm by 8015D we ppm (via 8021B). A shallow er the application of hydroger 900 ppm via 418.1). Chloric suant to NMOCD rules and eases which may endanger ieve the operator of liability r, surface water, human healt compliance with any other DIVISION	
f a Watercou Describe Cau f impacts. S bove remedi xcavation w Describe Are eroxide dete TEX and be hereby certi egulations a ublic health hould their or r the environ ederal, state, ignature:	urse was Imp use of Proble Soil analysis iation standa vas advanced a Affected a ermine TPH enzene were ify that the i ll operators or the envir operations h nment. In a a, or local law	em and Remen determine ch ards. Combin i through sand and Cleanup A levels to be b below the sit nformation gi are required to addition, NMC vs and/or regu	dial Action hloride leve ed BTEX distone bed Action Tak below the s the specific ven above o report and adequately DCD accep ilations.	n Taken.* Sampl els below remedi was above stand brock. Hydrogen cen.* Sampling o site specific 5,000 remediation stan e is true and comp nd/or file certain ce of a C-141 rep investigate and p stance of a C-141	ing of th iation sta ards with peroxide f the mai 0 ppm re dard as v olete to t release n ort by th remediat report d	e soil beneath ndards, but T h 156.7 ppm v e was applied terial below th mediation sta well. he best of my otifications at e NMOCD m e contaminati loes not reliev	the BGT was pe PH results of 54, with benzene belo to the broken up ne BGT approxim ndard with 1,200 knowledge and un a perform correct arked as "Final R on that pose a thr e the operator of OIL CON	rformeco 000 ppm ow stance materia hately 5 ppm vi indersta ctive acc ceport" ceat to g respons SERV	I during ren n by 418.1 a lard at 0.50 I. months afte a 8015B (8, a 8015B (8, itions for rel does not rel round wate isbility for c	noval to determine the exister and 10,400 ppm by 8015D we ppm (via 8021B). A shallow er the application of hydroger 900 ppm via 418.1). Chloric suant to NMOCD rules and eases which may endanger ieve the operator of liability r, surface water, human healt compliance with any other DIVISION	
f a Watercou Describe Cau f impacts. S bove remedi xcavation w Describe Are eroxide dete TEX and be hereby certi cyulations at ublic health hould their of r the environ ederal, state, ignature:	urse was Imp use of Proble Soil analysis iation standa vas advanced a Affected a ermine TPH enzene were ify that the i Il operators or the envir operations h nment. In a or local law	em and Remen determine ch ards. Combin i through sand and Cleanup A levels to be b below the sit nformation gi are required to ronment. The ave failed to a ddition, NMC vs and/or regu	dial Action aloride level and BTEX distone bed Action Tak below the s the specific aven above o receptance adequately DCD acceptations.	n Taken.* Sampl els below remedi was above stand rock. Hydrogen ten.* Sampling o site specific 5,000 remediation stan te is true and comp d/or file certain te of a C-141 rep investigate and in tance of a C-141	ing of th ation sta ards with peroxide f the mai 0 ppm re dard as v oplete to t release n ort by th remediat report d	e soil beneath ndards, but T h 156.7 ppm v e was applied terial below th mediation sta well. he best of my otifications at e NMOCD m e contaminati loes not reliev Approved by	the BGT was pe PH results of 54, vith benzene belo to the broken up ne BGT approxim ndard with 1,200 knowledge and u and perform correct arked as "Final R on that pose a thu e the operator of <u>OIL CON</u> Environmental S	rformec 000 ppm ow stand materia hately 5 ppm vi indersta ctive active active active respons SERV specialis	I during ren n by 418.1 a lard at 0.50 I. months afte a 8015B (8, a 8015B (8, a 8015B (8, it) that purs- tions for rel does not rel round wate sibility for c VATION at:	noval to determine the exister and 10,400 ppm by 8015D we ppm (via 8021B). A shallow er the application of hydrogen 900 ppm via 418.1). Chloric suant to NMOCD rules and eases which may endanger ieve the operator of liability r, surface water, human healt compliance with any other DIVISION	
f a Watercou escribe Cau f impacts. S bove remedi xcavation w escribe Are eroxide dete TEX and be hereby certi gulations a ublic health iould their of the environ ideral, state, ignature:	urse was Imp use of Proble Soil analysis iation standa vas advanced a Affected a ermine TPH enzene were ify that the i ll operators or the envir operations h nment. In a or local law e: Steve Mon Environment	em and Remen determine ch ards. Combin i through sand and Cleanup A levels to be b below the sit nformation gi are required to addition, NMC ws and/or regu skal al Coordinato	ibe Fully.* dial Action aloride leve ed BTEX distone bed Action Tak below the s the specific ven above o receptance adequately DCD accep alations.	n Taken.* Sampl els below remedi was above stand rock. Hydrogen ten.* Sampling o site specific 5,000 remediation stan e is true and comp d/or file certain te of a C-141 rep investigate and in tance of a C-141	ing of th ation sta ards with peroxide f the mai 0 ppm re dard as v oplete to t release n ort by th remediat report d	e soil beneath ndards, but T h 156.7 ppm v e was applied terial below th mediation sta well. he best of my otifications at e NMOCD m e contaminati loes not reliev Approved by Approval Dat	the BGT was per PH results of 54, vith benzene belo to the broken up ne BGT approxim ndard with 1,200 knowledge and up arked as "Final R on that pose a thr e the operator of <u>OIL CON</u> Environmental S te: <u>9</u> 28/12	rformec 000 ppm ow stanc materia hately 5 ppm vi indersta ctive act ceport" reat to g respons SERV	I during ren n by 418.1 a lard at 0.50 I. months afte a 8015B (8, a 8015B (8, itions for rel does not rel round wate sibility for c VATION at: Expiration	noval to determine the exister and 10,400 ppm by 8015D we ppm (via 8021B). A shallow er the application of hydrogen 900 ppm via 418.1). Chloric suant to NMOCD rules and eases which may endanger ieve the operator of liability r, surface water, human healt compliance with any other DIVISION	
f a Watercou escribe Cau f impacts. S bove remedi xcavation w escribe Are eroxide dete TEX and be hereby certi- gulations a ublic health iould their or the environ- ideral, state, ignature: 7 rinted Name itle: Field E -mail Addre	urse was Imp use of Proble Soil analysis iation standa vas advanced a Affected a ermine TPH enzene were ify that the i ll operators or the envir operations h nment. In a or local law e: Steve Mon Environment	em and Remen determine ch ards. Combin i through sand and Cleanup A levels to be b below the sit nformation gi are required to addition, NMC ws and/or regu skal al Coordinato noskal@bp.cc	dial Action aloride level and BTEX distone bed Action Tak below the s the specific acceptance adequately DCD acceptance adequately DCD acceptance add Acceptance add Acceptance add Acceptance add Acceptance add Acceptance add Acceptance add Acceptance add Acceptance add Acceptance add Acceptance add Acceptance add Acceptance add Acceptance add Acceptance add Acceptance Acceptance add Acceptance A	n Taken.* Sampl els below remedi was above stand rock. Hydrogen cen.* Sampling o site specific 5,000 remediation stan e is true and comp d/or file certain the of a C-141 rep investigate and in tance of a C-141	ing of th aation sta ards with peroxide f the mai 0 ppm re dard as v oplete to t release n ort by th remediat report d	e soil beneath ndards, but T h 156.7 ppm v e was applied terial below th mediation sta well. he best of my otifications at e NMOCD m e contaminati loes not reliev Approved by <u>Approval Dat</u> Conditions of	the BGT was pe PH results of 54, vith benzene belo to the broken up ne BGT approxim ndard with 1,200 knowledge and un and perform correct arked as "Final R on that pose a thr e the operator of <u>OIL CON</u> Environmental S te: <u>9/28/12</u> f Approval:	rformec 000 ppm ow stanc materia hately 5 ppm vi indersta ctive act ceport" reat to g respons SERV	I during ren n by 418.1 a lard at 0.50 I. months afte a 8015B (8, a 8015B (8, a 8015B (8, itions for rel does not rel round wate sibility for c VATION at: Expiration	noval to determine the exister and 10,400 ppm by 8015D we ppm (via 8021B). A shallow er the application of hydrogen 900 ppm via 418.1). Chloric suant to NMOCD rules and eases which may endanger ieve the operator of liability r, surface water, human healt compliance with any other DIVISION	

BP AMERICA PRODUCTION COMPANY

FLORANCE J 048A – 18 BBL BGT (TANK ID: B) SOIL REMEDIATION API #: 30-045-22146 Legal Description: (Unit Letter O, Sec. 23 -T30N -R8W, NMPM)

CHRONOLOGICAL EVENT SUMMATION

- 1. May 7, 2014: BP begins closure of 18 barrel below-grade tank (BGT) at the site. The BGT was initially installed by carving into bedrock sandstone which was observed at the ground surface in the immediate vicinity of the BGT location. Apparent hydrocarbon impacts to the soil and bedrock surface (sandstone) directly beneath the BGT was evident based on physical discoloration and strong odor. Blagg Engineering, Inc. (BEI) collected a five (5) point composite sample (PCS) beneath the BGT after its removal from the subsurface [5PC-TB @ 2' (18)]. Thereafter, BEI recommended to mix the impacted soil and sandstone surface with clean fill material and leave in place. The impacted soils was estimated at less than 1 cubic yard.
- 2. May 8, 2014: Preliminary lab results indicated the following results for 5PC-TB @ 2' (18);

Total Petroleum Hydrocarbons (TPH) using US EPA Method 418.1 = 54,000 mg/Kg TPH using US EPA Method 8015B = 10,400 mg/Kg Benzene using US EPA Method 8021B = 0.50 mg/Kg Total benzene, toluene, ethylbenzene, total xylenes (BTEX) using US EPA Method 8021B = 156.7 mg/Kg Chloride using US EPA Method 300.0 = not detected (ND) at reporting limits of 30 mg/Kg

- 3. **February 4, 2015**: BP instructed BEI to apply concentrated hydrogen peroxide to the already blended soils and bedrock fragments at the BGT location.
- July 30, 2015: BP instructed BEI to perform a subsequent sample event of the remediated material. A five (5) PCS was collected [5PC-TB @ 2'-3' (18)].
- 5. August 10, 2015: The final lab report was received and shows the following results;

TPH using US EPA Method 418.1 = 8,900 mg/Kg TPH using US EPA Method 8015B = 1,200 mg/Kg Benzene using US EPA Method 8021B = ND at reporting limits of less than 0.050 mg/Kg BTEX using US EPA Method 8021B = ND at reporting limits of less than 0.10 mg/Kg Chloride using US EPA Method 300.0 = 110 mg/Kg

The New Mexico Oil Conservation Division's Spill and Release Guidelines, dated August 1993, gives the site a TPH closure standard of 5,000 mg/Kg based on (*see supporting topographic map on following page*):

Horizontal Distance to a down gradient Surface Water Body (e.g. watercourse > 1,000 feet (0 points) Well Head Protection Area (e.g. nearest water well or natural spring) > 1,000 feet (0 points) Depth to Groundwater > 100 feet (0 points)



Copyright (C) 1999, Maptech, Inc.

CLIENT: BP	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413	API# 3004522146
	(505) 632-1199	(if applicble): Bac
FIELD REPORT:	(circle one): BGT CONFIRMATION / RELEASE INVESTIGATION / OTHER:	PAGE #: _1_ of _1_
SITE INFORMATION	I: SITE NAME: FLORANCE J #48A	DATE STARTED: 05/07/14
QUAD/UNIT: O SEC: 23 TWP:	30N RNG: 8W PM: NM CNTY: SJ ST: NM	_ DATE FINISHED:
1/4 -1/4/FOOTAGE: 1,060'S / 1,68	BO'E SW/SE LEASE TYPE: FEDERAL/ STATE / FEE / INDIAN	- ENVIRONMENTAL
LEASE #: SF078385	PROD. FORMATION: MV CONTRACTOR: MBF - B. SCHURMAN	SPECIALIST(S): NJV
REFERENCE POINT	WELL HEAD (W.H.) GPS COORD.: 36.79280 X 107.6420	GL ELEV.: 6,172'
1) 18 BGT (SW/SB) - B	GPS COORD.: 36.79293 X 107.64238 DISTANCE/BE	ARING FROM W.H.: 125', N72W
2) -95-BGT (SW/BB) - 6	GPS COORD.: 36.79201 X 107.64103 DISTANCEDE	ARING FROM W.H.: 55', 960E
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: HALL	OVM READING (ppm)
1) SAMPLE ID: 5 PC-TB @ 2' (18)) - B SAMPLE DATE SAMPLE TIME LAB ANALYSIS 418.1	8015B/8021B/300.0 (CI) NA
2) SAMPLE ID:	- C SAMPLE DATE 05/07/14 SAMPLE TIME 1300 LAB ANALYSIS 418.1	0015B/8021B/300.0 (CI) NA
3) SAMPLE ID:	SAMPLE DATE SAMPLE TIME LAB ANALYSIS	
4) SAMPLE ID:	SAMPLE DATE: SAMPLE TIME: LAB ANALYSIS:	
SOIL DESCRIPTION	SOIL TYPE: SAND/ SILTY SAND / SILT / SILTY CLAY / CLAY / GRAVEL OTHER BEDR	OCK (SANDSTONE)
COHESION (ALL OTHERS): NON COHESIVE / SLIGHTLY CONSISTENCY (NON COHESIVE SOILS): LC MOISTURE: DRY (SLIGHTLY MOIST) MOIST / WE SAMPLE TYPE: GRAB (COMPOSITE) # DISCOLORATION/STAINING OBSERVED: [YES] N	COHESIVE / COHESIVE / HIGHLY COHESIVE COST (COHESIVE / COHESIVE / HIGHLY COHESIVE DOSE [FIRM] DENSE / VERY DENSE ET / SATURATED / SUPER SATURATED COF PTS	/ STIFF / VERY STIFF / HARD SCOLORED SOIL @18 BGT ONLY.
SITE OBSERVATION	S: LOST INTEGRITY OF EQUIPMENT: YES NO EXPLANATION - 18 BGT ONLY	and the second second
APPARENT EVIDENCE OF A RELEASE OBSERVE EQUIPMENT SET OVER RECLAIMED AREA: OTHER: BEDROCK SANDSTONE OUTCH INTO BEDROCK. IMPACTED SOIL VE SOIL IMPACT DIMENSION ESTIMATION:	D AND/OR OCCURRED : YES NO EXPLANATION: 18 BGT ONLY YES NO EXPLANATION - ROP @ GROUND SURFACE THROUGHOUT NORTHERN HALF OF WELL PAD. RY MINIMAL. WILL LEAVE IN PLACE. 5 ft. X 5 ft. X 0.5 ft. EXCAVATION ES	18 BGT INSTALLED BY CARVING STIMATION (Cubic Yards) : <1
DEPTH TO GROUNDWATER: >100' N	EAREST WATER SOURCE: >1,000' NEAREST SURFACE WATER: >1,000 NMC	CD TPH CLOSURE STD: 5,000 ppm
SITE SKETCH	BGT Located : off on site PLOT PLAN circle: attached ov COMPRESSOR	MCALIB. READ. = NA ppm MCALIB. GAS = NA ppm MCALIB. GAS = NA ppm ME NA am/pm DATE: MISCELL. NOTES WO: N15182573 PO #: 4300261710 PK: NA
X - S.P.D. NOTES: BGT = BELOW-GRADE TANK; E.D. = EXCAVATIO T.B. = TANK BOTTOM; PBGTL = PREVIOUS BELO APPLICABLE OR NOT AVAILABLE; SW- SINGLE	W.H. ⊕ DN DEPRESSION; B.G. = BELOW GRADE; B = BELOW; T.H. = TEST HOLE; ~ = APPROX.; W.H. = WELL HEAD; OW-GRADE TANK LOCATION; SPD = SAMPLE POINT DESIGNATION; R.W. = RETAINING WALL; NA - NOT E WALL; DW - DOUBLE WALL; SB - SINGLE BOTTOM; DB - DOUBLE BOTTOM.	Permit date(s): 06/14/10 OCD Appr. date(s): 05/14/14 ank OVM = Organic Vapor Meter D ppm = parts per million B BGT Sidewalls Visible: Y / N C DCT Sidewalls Visible: Y / N BGT Sidewalls Visible: Y / N Magnetic declination: 10° E
NOTES: GOOGLE EARTH IMAGER	RY DATE: 05/02/2013. ONSITE: 05/07/14	



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

May 15, 2014

Nelson Velez Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 320-3489 FAX (505) 632-3903

RE: Florance J #48A

OrderNo.: 1405369

Dear Nelson Velez:

Hall Environmental Analysis Laboratory received 2 sample(s) on 5/8/2014 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 qualifers 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 1405369

Date Reported: 5/15/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Project: Florance J #48A

Client Sample ID: 5PC-TB @ 2' (18)-B Collection Date: 5/7/2014 12:50:00 PM Received Date: 5/8/2014 3:00:00 PM

ab ID: 1405369-001 malyses EPA METHOD 8015D: DIESEL RANGE Diesel Range Organics (DRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RAN Gasoline Range Organics (GRO) Surr: BFB EPA METHOD 8021B: VOLATILES Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene EPA METHOD 300.0: ANIONS Chloride EPA METHOD 418.1: TPH Petroleum Hydrocarbons, TR	Matrix:	SOIL		Received Date: 5/8/2014 3:00:00 PM						
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch			
EPA METHOD 8015D: DIESEL RANGE	ORGANICS	Const Const			1	Analyst:	BCN			
Diesel Range Organics (DRO)	9300	1000		mg/Kg	100	5/13/2014 10:55:37 AM	13082			
Surr: DNOP	0	57.9-140	S	%REC	100	5/13/2014 10:55:37 AM	13082			
EPA METHOD 8015D: GASOLINE RAI	NGE					Analyst:	NSB			
Gasoline Range Organics (GRO)	1100	97		mg/Kg	20	5/12/2014 5:29:54 PM	13090			
Surr: BFB	205	74.5-129	S	%REC	20	5/12/2014 5:29:54 PM	13090			
EPA METHOD 8021B: VOLATILES						Analyst:	NSB			
Benzene	0.50	0.48		mg/Kg	20	5/12/2014 5:29:54 PM	13090			
Toluene	6.2	0.97		mg/Kg	20	5/12/2014 5:29:54 PM	13090			
Ethylbenzene	ND	0.97		mg/Kg	20	5/12/2014 5:29:54 PM	13090			
Xylenes, Total	150	1.9		mg/Kg	20	5/12/2014 5:29:54 PM	13090			
Surr: 4-Bromofluorobenzene	116	80-120		%REC	20	5/12/2014 5:29:54 PM	13090			
EPA METHOD 300.0: ANIONS						Analyst:	JRR			
Chloride	ND	30		mg/Kg	20	5/13/2014 1:25:13 PM	13142			
EPA METHOD 418.1: TPH						Analyst:	JME			
Petroleum Hydrocarbons, TR	54000	2000		mg/Kg	100	5/13/2014 12:00:00 PM	13084			

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

		and the second sec		
*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
Е	Value above quantitation range	Н	Holding times for preparation or analysi	s exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 8
0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	rage rore
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
S	Spike Recovery outside accepted recovery limits			
	* E J O R S	 Value exceeds Maximum Contaminant Level. E Value above quantitation range J Analyte detected below quantitation limits O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits 	* Value exceeds Maximum Contaminant Level. B E Value above quantitation range H J Analyte detected below quantitation limits ND O RSD is greater than RSDlimit P R RPD outside accepted recovery limits RL S Spike Recovery outside accepted recovery limits P	 Value exceeds Maximum Contaminant Level. B Analyte detected in the associated Mether Value above quantitation range H Holding times for preparation or analysis J Analyte detected below quantitation limits ND Not Detected at the Reporting Limit O RSD is greater than RSDlimit P Sample pH greater than 2. R RPD outside accepted recovery limits R Spike Recovery outside accepted recovery limits

WO#: 1405369 15-May-14

Hall	Environmental	Analysis	Laboratory,	Inc.
------	---------------	----------	-------------	------

Client: Blagg Project: Floran	Engineering ace J #48A		
Sample ID MB-13142 Client ID: PBS Prep Date: 5/13/2014	SampType: MBLK Batch ID: 13142 Analysis Date: 5/13/2014	TestCode: EPA Method 300.0: Anions RunNo: 18590 SeqNo: 536900 Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLim	nit Qual
Chionde	ND 1.5		
Sample ID LCS-13142	SampType: LCS	TestCode: EPA Method 300.0: Anions	
Client ID: LCSS	Batch ID: 13142	RunNo: 18590	
Prep Date: 5/13/2014	Analysis Date: 5/13/2014	SeqNo: 536901 Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLim	nit Qual
Chloride	14 1.5 15.00	0 96.1 90 110	and the same

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 3 of 8

WO#: 1405369 15-May-14

Project: Florance	ce J #48A	Marine Marine State	Same and the second	本。适用	CHL IL
Sample ID MB-13084	SampType: MBLK	TestCode: EPA Method	418.1: TPH		
Client ID: PBS	Batch ID: 13084	RunNo: 18548			
Prep Date: 5/9/2014	Analysis Date: 5/13/2014	SeqNo: 535923	Units: mg/Kg		
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND 20			and the	
Sample ID LCS-13084	SampType: LCS	TestCode: EPA Method	418.1: TPH		No.
Client ID: LCSS	Batch ID: 13084	RunNo: 18548			
Prep Date: 5/9/2014	Analysis Date: 5/13/2014	SeqNo: 535924	Units: mg/Kg		
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	91 20 100.0	0 91.2 80	120		174
Sample ID LCSD-13084	SampType: LCSD	TestCode: EPA Method	418.1: TPH		4.5.5
Client ID: LCSS02	Batch ID: 13084	RunNo: 18548			
Prep Date: 5/9/2014	Analysis Date: 5/13/2014	SeqNo: 535925	Units: mg/Kg		
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit	Qual
Petroleum Hydrocarbons TR	96 20 100.0	0 95.5 80	120 4.58	20	P.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 4 of 8

WO#: 1405369 15-May-14

Client: Project:	Blagg Flora	g Engineering nce J #48A									
Sample ID ME Client ID: PB Prep Date: 5/	3-13082 IS 19/2014	SampT Batch Analysis D	BLK 082 /9/2014	TestCode: EPA Method 8015D: Diesel Range Organics RunNo: 18502 SeoNo: 534127							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organ Surr: DNOP	nics (DRO)	ND 8.2	10	10.00		81.9	57.9	140			
Sample ID LC Client ID: LC	S-13082 SS	SampT Batch	ype: LC	CS 1082	Tes	tCode: E RunNo: 1	PA Method 8502	8015D: Diese	el Range (Organics	
Prep Date: 5/ Analyte	9/2014	Analysis D Result	ate: 5	/9/2014 SPK value	SPK Ref Val	SeqNo: 5 %REC	LowLimit	Units: mg/K HighLimit	kg %RPD	RPDLimit	Qual
Diesel Range Organ Surr: DNOP	nics (DRO)	48 4.3	10	50.00 5.000	0	96.5 85.5	60.8 57.9	145 140		N.M.	
Sample ID MB Client ID: PB	8-13132 S	SampT Batch	ype: MI ID: 13	BLK 132	Tes F	tCode: E RunNo: 1	PA Method 8557	8015D: Diese	el Range (Organics	
Prep Date: 5/ Analyte Surr: DNOP	/13/2014	Analysis D Result 8.3	ate: 5/ PQL	13/2014 SPK value 10.00	SPK Ref Val	SeqNo: 5 %REC 83.4	36327 LowLimit 57.9	Units: %RE HighLimit 140	C %RPD	RPDLimit	Qual
Sample ID LC Client ID: LC	S-13132 SS	SampT Batch	ype: LC	S 132	Tes	tCode: E RunNo: 1	PA Method 8557	8015D: Diese	el Range (Organics	

Analyte	Result PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	4.0	5.000		79.7	57.9	140	5 - V - W			
Sample ID MB-13112	SampType:	MBLK	Tes	tCode: E	PA Method	8015D: Dies	el Range (Organics		
Client ID: PBS	Batch ID:	13112	F	RunNo: 1	8557					
Prep Date: 5/12/2014	Analysis Date:	5/13/2014	5	SeqNo: 5	536644	Units: %RE	с			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.9	A state	10.00	"是"是"	88.8	57.9	140	A Barris	「日本」ない	all and
Sample ID LCS-13112	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015D: Dies	el Range (Organics	
Client ID: LCSS	Batch	h ID: 13	112	F	RunNo: 1	8557				
Prep Date: 5/12/2014	Analysis E	Date: 5	13/2014	5	SeqNo: 5	36647	Units: %RE	с		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.7	-	5.000	and the second	93.5	57.9	140	King Landy	1. Carlos and a	and the second

Qualifiers:

* Value exceeds Maximum Contaminant Level.

- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 5 of 8

12 3 1 1 1

WO#: 1405369 15-May-14

Client: Project:	Blagg Floran	Engineering nce J #48A
Sample ID	MB-13119	SampType: MBLK TestCode: EPA Method 8015D: Diesel Range Organics
Client ID:	РВБ	Batch ID: 13119 Runno: 18557
Prep Date:	5/12/2014	Analysis Date: 5/13/2014 SeqNo: 536743 Units: %REC
Analyte		Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP		9.3 10.00 93.0 57.9 140
Sample ID	LCS-13119	SampType: LCS TestCode: EPA Method 8015D: Diesel Range Organics
Client ID:	LCSS	Batch ID: 13119 RunNo: 18557
Prep Date:	5/12/2014	Analysis Date: 5/13/2014 SeqNo: 536744 Units: %REC
Analyte		Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	15	4.7 5.000 94.4 57.9 140
Sample ID	MB-13097	SampType: MBLK TestCode: EPA Method 8015D: Diesel Range Organics
Client ID:	PBS	Batch ID: 13097 RunNo: 18557
Prep Date:	5/9/2014	Analysis Date: 5/14/2014 SeqNo: 536755 Units: %REC
Analyte		Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP		8.9 10.00 89.3 57.9 140
Sample ID	LCS-13097	SampType: LCS TestCode: EPA Method 8015D: Diesel Range Organics
Client ID:	LCSS	Batch ID: 13097 RunNo: 18557
Prep Date:	5/9/2014	Analysis Date: 5/14/2014 SeqNo: 536756 Units: %REC
Analyte		Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP		4.6 5.000 92.4 57.9 140

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 6 of 8

WO#: 1405369 15-May-14

Client: Blagg Engineering Florance J #48A **Project:** Sample ID MB-13090 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range Client ID: PBS Batch ID: 13090 RunNo: 18552 Prep Date: 5/9/2014 Analysis Date: 5/12/2014 SeqNo: 535973 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) ND 5.0 Surr: BFB 850 1000 85.0 74.5 129 TestCode: EPA Method 8015D: Gasoline Range Sample ID LCS-13090 SampType: LCS Client ID: LCSS Batch ID: 13090 RunNo: 18552 Analysis Date: 5/12/2014 Prep Date: 5/9/2014 SegNo: 535974 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 23 5.0 25.00 0 91.1 71.7 134 Surr: BFB 930 1000 93.4 74.5 129 Sample ID MB-13090 MK SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range Client ID: PBS Batch ID: R18552 RunNo: 18552 Prep Date: Analysis Date: 5/12/2014 SeqNo: 535984 Units: %REC Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Surr: BFB 850 1000 85.0 74.5 129 Sample ID LCS-13090 MK SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS Batch ID: R18552 RunNo: 18552 Prep Date: Analysis Date: 5/12/2014 SeqNo: 535985 Units: %REC Analyte PQL SPK value SPK Ref Val %REC %RPD **RPDLimit** Qual Result LowLimit HighLimit 930 1000 74.5 Surr: BFB 93.4 129

Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- E Value above quantitation range
- Analyte detected below quantitation limits I
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits S
- B Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- P
- RL **Reporting Detection Limit**

Page 7 of 8

Sample pH greater than 2.

WO#: 1405369 15-May-14

Client:	Blagg Er	ngineering									
Project:	Florance	J #48A		1.23.9	- P ^{lan}		and the	The same of the	1945	A AN	FE .
Sample ID	MB-13090	Samp	Туре: М	BLK	TestCode: EPA Method 8021B: Volatiles						
Client ID:	PBS	Bato	h ID: 13	090	1.1.1.1.1.1	RunNo: 18552					
Prep Date:	5/9/2014	Analysis I	Date: 5	/12/2014	the store	SeqNo: 5	536001	Units: mg/l	Kg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.050	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	LA MALES DA	19月月月	Stan Sta	a diala dia dia	A DIRE THE	ENT TI	10
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
Surr: 4-Brom	ofluorobenzene	1.0	100.33	1.000		101	80	120	2011	1992	2 Same
Sample ID	LCS-13090	Samp	Type: LC	s	Tes	stCode: E	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Bato	h ID: 13	090	Part I	RunNo: 1	8552				
Prep Date:	5/9/2014	Analysis I	Date: 5	12/2014		SeqNo: 5	536002	Units: mg/H	Kg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.1	0.050	1.000	0	107	80	120	A CONTRACT	THE REAL PROPERTY.	
Foluene		1.0	0.050	1.000	0	101	80	120			
Ethylbenzene		0.99	0.050	1.000	0	98.7	80	120			
Kylenes, Total		2.9	0.10	3.000	0	97.4	80	120			
Surr: 4-Brom	ofluorobenzene	1.1		1.000	in the second	108	80	120	" interior		
Sample ID	1405369-002AMS	Samp	Туре: М	5	TestCode: EPA Method 8021B: Volatiles						1.30
Client ID:	5PC-TB @ 2' (95)-	-C Batc	h ID: 13	090	F	RunNo: 1	8552				
Prep Date:	5/9/2014	Analysis I	Date: 5	12/2014	:	SeqNo: 5	36007	Units: mg/H	<g< td=""><td></td><td></td></g<>		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	and the second	0.91	0.048	0.9625	0	94.4	67.4	135	Mark S		
Foluene		0.86	0.048	0.9625	0.009048	88.6	72.6	135			
Ethylbenzene		0.87	0.048	0.9625	0	90.5	69.4	143			
Xylenes, Total		2.5	0.096	2.887	0.01380	86.1	70.8	144			
Surr: 4-Brom	ofluorobenzene	1.0	ALL ST	0.9625		104	80	120	in a state		1 per
Sample ID	1405369-002AMS	D Samp	Type: MS	SD	Tes	tCode: E	PA Method	8021B: Vola	tiles	- Salara	
Client ID:	5PC-TB @ 2' (95)-	-C Batc	h ID: 13	090	F	RunNo: 1	8552				
Prep Date:	5/9/2014	Analysis [Date: 5/	12/2014	:	SeqNo: 5	36008	Units: mg/k	٢g		
Analyte	W. Martines	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	Not States	0.94	0.048	0.9606	0	98.3	67.4	135	3.90	20	Hay See
Toluene		0.88	0.048	0.9606	0.009048	90.7	72.6	135	2.14	20	
Ethylbenzene		0.89	0.048	0.9606	0	92.2	69.4	143	1.62	20	
(ylenes, Total		2.6	0.096	2.882	0.01380	88.9	70.8	144	2.95	20	
Surr 4-Brom	ofluorobenzene	0.98		0 9606		102	80	120	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 8 of 8

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Analysis 4901 Albuquerque TEL: 505-345-3975 FAX: 50 Website: www.hallenviron	Laboratory Hawkins NE NM 87109 05-345-4107 amental.com	Sam	ple Log-In Check List
Client Name: BLAGG	Work Order Number: 14053	69		RcptNo: 1
Received by/date: 05 Logged By: Lindsay Mangin 5/4 Completed By: Lindsay Mangin 5/4	08 14 3/2014 3:00:00 PM 9/2014 6:36:19 AM	0	rundry Alexage translay Alexage	
Reviewed By: AUS 09/14		···		
Chain of Custody				
1. Custody seals intact on sample bottles?	Yes		No	Not Present
2. Is Chain of Custody complete?	Yes	I ⊻	NO 🗌	
3. How was the sample delivered?	Count	<u>er</u>		
Log In				
4. Was an attempt made to cool the samples?	Yes	2	No 🛄	NA
5. Were all samples received at a temperature of	>0° C to 6.0°C Yes	2	No 门	NA
6. Sample(s) in proper container(s)?	Yes		No 🗆	
7 Sufficient sample volume for indicated test(s)?	Vac		No 🗔	
8 Are samples (except VOA and ONG) properly p	reserved? Yes		No	
9. Was preservative added to bottles?	Yes		No 🔽	NA 🗍
	Vas	r"1	No T1	
11 Were any sample containers received broken?	Yes	[7]	No V	
12. Does paperwork match bottle labels?	Yes	2	No 🗀	# of preserved bottles checked for pH:
(Note discrepancies on chain of custody)	etodu? Vee	3	No 🗔	Adjusted?
14, Is it clear what analyses were requested?	Yes		No 📋	· · · · · · · · · · · · · · · · · · ·
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes	2	No 🗌	Checked by:
Special Handling (if applicable)				
6. Was client notified of all discrepancies with this	order? Yes	LĴ	No 🗇	NA 🗹
Person Notified:	Date:	·		
By Whom: Regarding:	Via: 🗌 eMai	I 🗌 Phone	[]] Fax	In Person
17 Additional remarket				
18. <u>Cooler Information</u>	ntact Seal No. Seal De	e Sian	ed By I	and there
1 1.0 Good Yes				

Client: Mailing A	Client: BLAGG ENGR. / BP AMERICA Mailing Address: P.O. BOX 87 BLOOMFIELD, NM 87413 Phone #: (505) 632-1199				Standard Rush Project Name: FLORANCE J # 48A Project #:				HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107											
Phone #: email or F QA/QC Pa	ax#: ckage: ard	(505) 63	2-1199 Level 4 (Full Validation)	Project Manag	ger: NELSON VI	ELEZ	218)	only)	T lour	-		s)	Anal	04,504) is	PCB's	ques	st	ir - 300.1)		
	tion: 5 Type)	Other		Sampler: On Ice: Sample Temp	NELSON VI	ELEZ AV	6 - TMBIS (80)	E + TPH (Gas o	GRO / DRO H	B (GR0 / DR0 / thod 418.1) thod 504.1) 10 or 82705IMS Metals F,CI,NO ₃ ,NO ₂ ,P(F,CI,NO ₃ ,NO ₂ ,P(F,CI,NO ₃ ,NO ₂ ,P(Mod) (OA) mi-VOA) mi-VOA)			le osite sample							
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO. 140526.9	BTEX +-MTB	BTEX + MTB	TPH 8015B (TPH (Meth	EDB (Meth	PAH (8310	RCRA 8 Me	Anions (F,C	8081 Pestic	8260B (VO	8270 (Semi	Chloride (soi	Grab samp	5 pt. compo
5/7/14	1250	SOIL	5PC - TB @ 2' (18) - B	4 oz 1	Cool	-001	V		۷	V		100		10		14		۷	-	۷
5/7/14	1300	SOIL	5PC - TB @ 2' (95) - C	4 021	Cool	-662	*		*	*								-		*
Date: / 8 /14 Date: 2 8 14	Time: 807 Time: 1335	Relinquiste	ed by: by:	Received by:	Warter	Date Time 5/8/14 807 Date Time 5/05/14/1500	Remarks: Send involce to : Blagg Engineering, Inc. P.O. Box 87 Bloomfield, NM 87413													



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

August 10, 2015

Nelson Velez Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 320-3489 FAX (505) 632-3903

RE: Florance J #48A

OrderNo.: 1508024

Dear Nelson Velez:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/1/2015 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 qualifers 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 1508024 Date Reported: 8/10/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Project: Florance J #48A

Client Sample ID: 5PC-TB @ 2'-3' (18)-B Collection Date: 7/30/2015 12:40:00 PM Received Date: 8/1/2015 8:00:00 AM

Lab ID: 1508024-001	Matrix:	SOIL	Received	Received Date: 8/1/2015 8:00:00 AM						
Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch				
EPA METHOD 418.1: TPH					Analyst	том				
Petroleum Hydrocarbons, TR	8900	2000	mg/Kg	100	8/7/2015	20635				
EPA METHOD 300.0: ANIONS					Analyst:	LGT				
Chloride	110	30	mg/Kg	20	8/6/2015 11:52:27 AM	20649				
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANIC	s			Analyst	KJH				
Diesel Range Organics (DRO)	1200	990	mg/Kg	100	8/7/2015 1:34:15 PM	20585				
Surr: DNOP	0	57.9-140	S %REC	100	8/7/2015 1:34:15 PM	20585				
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst:	RAA				
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	8/5/2015 10:25:10 AM	20592				
Surr: BFB	93.2	75.4-113	%REC	1	8/5/2015 10:25:10 AM	20592				
EPA METHOD 8021B: VOLATILES					Analyst:	RAA				
Benzene	ND	0.050	mg/Kg	1	8/5/2015 10:25:10 AM	20592				
Toluene	ND	0.050	mg/Kg	1	8/5/2015 10:25:10 AM	20592				
Ethylbenzene	ND	0.050	mg/Kg	1	8/5/2015 10:25:10 AM	20592				
Xylenes, Total	ND	0.10	mg/Kg	1	8/5/2015 10:25:10 AM	20592				
Surr: 4-Bromofluorobenzene	102	80-120	%REC	1	8/5/2015 10:25:10 AM	20592				

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 6
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	rage roro
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix			

WO#: 1508024 10-Aug-15

Client: Blagg Project: Floran	Engineering ce J #48A	
Sample ID MB-20649 Client ID: PBS Prep Date: 8/6/2015 Analyte	SampType: MBLK Batch ID: 20649 Analysis Date: 8/6/2015 Result PQL SPK value	TestCode: EPA Method 300.0: Anions RunNo: 28030 SeqNo: 843926 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND 1.5	
Sample ID LCS-20649 Client ID: LCSS	SampType: LCS Batch ID: 20649	TestCode: EPA Method 300.0: Anions RunNo: 28030
Prep Date: 8/6/2015	Analysis Date: 8/6/2015	SeqNo: 843927 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	15 1.5 15.00	0 99.9 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

Page 2 of 6

WO#: 1508024 10-Aug-15

Client: Blagg l Project: Florance	Engineering ce J #48A				
Sample ID MB-20635	SampType: MBLK	TestCode: EPA Method	418.1: TPH		1
Client ID: PBS	Batch ID: 20635	RunNo: 28040			
Prep Date: 8/6/2015	Analysis Date: 8/7/2015	SeqNo: 844238	Units: mg/Kg		
Analyte	Result PQL SPK value S	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND 20				
Sample ID LCS-20635	SampType: LCS	TestCode: EPA Method	418.1: TPH		S VIB II
Client ID: LCSS	Batch ID: 20635	RunNo: 28040			
Prep Date: 8/6/2015	Analysis Date: 8/7/2015	SeqNo: 844239	Units: mg/Kg		
Analyte	Result PQL SPK value S	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	93 20 100.0	0 93.4 83.6	116		
Sample ID LCSD-20635	SampType: LCSD	TestCode: EPA Method	418.1: TPH		1
Client ID: LCSS02	Batch ID: 20635	RunNo: 28040			
Prep Date: 8/6/2015	Analysis Date: 8/7/2015	SeqNo: 844240	Units: mg/Kg		
Analyte	Result PQL SPK value S	PK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	97 20 100.0	0 97.3 83.6	116 4.16	20	

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

Page 3 of 6

WO#: 1508024

10-Aug-15

Hall	Env	vironn	iental	Anal	vsis	Lab	orat	tory,	Inc.
					J			17	

Client:	Blagg Engineering
Project:	Florance J #48A

Sample ID MB-20585 Client ID: PBS Prep Date: 8/4/2015	Samp ⁻ Batc Analysis [Fype: MI h ID: 20 Date: 8/	BLK 585 /5/2015	Tes F	tCode: E RunNo: 2 SeqNo: 8	PA Method 7958 41771	8015M/D: Di Units: mg/F	esel Rang Kg	e Organics	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO) Surr: DNOP	ND 9.4	10	10.00		93.8	57.9	140			
Sample ID LCS-20585	Samp	Type: LC	s	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	1.300-56
Client ID: LCSS	Batc	h ID: 20	585	F	RunNo: 2	7958				
Prep Date: 8/4/2015	Analysis E	Date: 8/	5/2015	5	SeqNo: 8	41772	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.9	57.4	139	True R	No Charles	1.000
SUT DNOP	47		5 000		933	57 9	140			

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

Page 4 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508024

10-Aug-15

Client: Blagg E Project: Floranc	Engineering e J #48A			
Sample ID LCS-20592	SampType: LCS	TestCode: EPA Method	8015D: Gasoline Range	
Prep Date: 8/4/2015	Batch ID: 20592 Analysis Date: 8/5/2015	RunNo: 27987 SeqNo: 842530	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPD	Limit Qual
Basoline Range Organics (GRO) Surr: BFB	26 5.0 25.00 1000 1000	0 104 79.6 99.7 75.4	122 113	
Sample ID MB-20592	SampType: MBLK	TestCode: EPA Method	8015D: Gasoline Range	1. S. W.W
Client ID: PBS	Batch ID: 20592	RunNo: 27987		
Prep Date: 8/4/2015	Analysis Date: 8/5/2015	SeqNo: 842531	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPD	Limit Qual
Gasoline Range Organics (GRO)	ND 5.0	and the state of the state of the state of the		10 m. 14
Surr: BFB	910 1000	90.9 75.4	113	

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
- RL Reporting Detection Limit

Page 5 of 6

P Sample pH Not In Range

WO#: 1508024 10-Aug-15

Hall Environmental Analysis Laboratory, Inc.

Client: Blagg Engineering Project: Florance J #48A

Sample ID LCS-20592	Samp	Type: LC	s	Tes	tCode: E	PA Method	8021B: Vola	tiles		and the second
Client ID: LCSS	Batc	h ID: 20	592	F	RunNo: 2	7987				
Prep Date: 8/4/2015	Analysis [Date: 8/	5/2015	5	SeqNo: 8	42733	Units: mg/k	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	111	76.6	128	S Parts	ing of the	1.5
Foluene	1.1	0.050	1.000	0	109	75	124			
Ethylbenzene	1.1	0.050	1.000	0	108	79.5	126			
Kylenes, Total	3.4	0.10	3.000	0	115	78.8	124			
Surr: 4-Bromofluorobenzene	1.1	MAR AN	1.000		109	80	120		Luine of	
Sample ID MB-20592	Samp	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Volat	tiles	De Parte	
Client ID: PBS	Batc	h ID: 20	592	F	RunNo: 2	7987				
Prep Date: 8/4/2015	Analysis [Date: 8/	5/2015	5	SeqNo: 8	42734	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050	And the second second		14.1				States in	AL-CA
Foluene	ND	0.050								
Ethylbenzene	ND	0.050								
Kylenes, Total	ND	0.10								
Sur: A Bromofluorohonzono	10		1 000		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
- 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

Page 6 of 6

HALL ENVIRONMENTAL ANALYSIS LABORATORY	liali Enviconmental s Albie IEL: 505-545-39753 Websito: www.bab	Inalysis Laboran 4901 Hawkins juergue: NM 871 FAX: 505-345-41 lenvironmental ci	NE 09 Sam 07	Sample Log-In Cher					
Client Name: BLAGG	ork Order Number:	1508024		ReptNo	1				
Received by/date F-M 0	2/01/15			A STATE OF					
Logged By: Ashley Gallegos 8/1/2	015 8:00:00 AM		A						
Completed By: Ashley Gallegos 8/3/2	015 12:04:36 PM		A						
Reviewed By: AA Dal	13/15		. 0						
Chain of Custody	usio	DAN AL	32 1730	a ser the list and					
1 Cuslody seals intact on sample bottles?		Yes LI	No	Not Present					
2 Is Chain of Custody complete?		Yes V	No	Not Present					
3. How was the sample delivered?		Courier	The second						
Logia									
4. Was an attempt made to cool the samples?		Yes 🗹	No 🗔						
5. Were all samples received at a temperature of >0	" C to 8 0 C	Yes	No 🗔	NA 🗋					
6. Sample(s) in proper container(s)?		Yes V	No E						
7. Sufficient sample volume for indicated test(s)?		Yes 🗹	No						
8. Are samples (except VOA and ONG) properly pres	served?	Yes 🗹	No 🗌						
9. Was preservative added to bottles?		Yes 🗆	No M	NA 🗆					
10. VOA vials have zero headspace?		Yes 🗌	No	No VOA Vials					
11. Were any sample containers received broken?		Yes	No 🗹	# of procopied					
BALL THE REPORT OF THE PARTY				bottles checked					
12. Does paperwork match bottle labels? (Note discremencies on chain of custody)		Yes V	No _	IOF PH	>12 unless noted				
13 Are matrices correctly identified on Chain of Custo	idy?	Yes 🗹	No E	Adjusted?					
14. Is it clear what analyses were requested?	and the second	Yes 🗹	No 🗆						
15. Were all holding times able to be met?		Yes 🕅	No	Checked by					
(in the room) consistent to summarize the									
Special Handling (if applicable)									
16. Was client notified of all discrepancies with this on	der?	Yes 🗆	No 🖽	NA					
Person Notified By Whom: Regarding:	Date Via] eMail 🔲 Pl	hone 🗌 Fax	In Person					
			and the second second						
17. Additional remarks: 18. <u>Cooler Information</u> <u>Cooler No Temp ⁹C Condition Seal Integration</u> 1 3.2 Good Yes	act Seal No S	ieal Date	Signed By						

Chain-of-Custody Record Client: BLAGG ENGR. / BP AMERICA Mailing Address: P.O. BOX 87 BLOOMFIELD, NM 87413 Phone #: (505) 632-1199 email or Fax#: QA/QC Package: Standard Standard Level 4 (Full Validation) Accreditation: NELAP Other				Turn-Around Time: ☑ Standard Rush Project Name: FLORANCE J # 48A Project #: Project Manager: NELSON VELEZ Sampler: NELSON VELEZ Sampler: Project Yes< Sample Temperature: 3, 2				HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax: 505-345-4107													
								(Aluo sei	ny mento			(SIMI		2,PO4,SO4)	82 PCB's	VOA)	ami-VOA)	(soll - 300.0 / water - 300.1)			ple
								ITBE + TPH (G	B (GRO / DR	thod 418.1	ethod 504.1	10 or 82705	Metals	F,CI,NO3,NO	sticides / 80					nple	nposite sam
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO. 1508024	BTEX ++	BTEX + M	TPH 8015	TPH (Me	EDB (Me	PAH (83	RCRA 8	Anions (8081 Pe	82608 (\	8270 (Se	Chloride		Grab sar	5 pt. cor
7/30/15	1240	SOIL	SPC-TB @ 2'-3' (18) - B	4 021		-001	>		×	×								V			V
Date: 7/31/15 Date: 7/21/14	Time: 1526 Time: 1719	Relinquishe	stuballe	Raceived by:	Walter A MAI	Date Time 7/31/15 1526 Date Time 1/5 1000	Remarks: BILL DIRECTLY TO BP: Jeff Peace, 200 Energy Court, Farmington, NM 87401 Reference # Paykey: ZEVH018GT2									2	-				

505-947-9900

BP AMERICA PRODUCTION COMPANY FLORANCE J 048A API 3004522146 LEASE NMSF078385 1060 FSL 1680 FEL (0) SEC 23 T30N R8W San Juan County ELEV 6172 LAT 36° 47' 34.404" LONG 107°38' 31.056"

B

Exposed bedrock sandstone at ground surface

Previous 18 bbl BGT Position (Tank ID: B)