<u>District I</u> 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 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505

#### State of New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division

1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-144 Revised June 6, 2013

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.

For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Below-Grade Tank, or									
Proposed Alternative Method Permit or Closure Plan Application									
Type of action:  Below grade tank registration  Permit of a pit or proposed alternative method  Closure of a pit, below-grade tank, or proposed alternative method  Modification to an existing permit/or registration  Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method									
Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request  Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the									
environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.									
Operator: BP America Production Company  OGRID #: 778									
Address: 200 Energy Court, Farmington, NM 87401 OIL CONS. DIV DIST. 3									
Facility or well name: Moore 005A									
API Number: 3004522019 OCD Permit Number:									
U/L or Qtr/Qtr O Section 9 Township 30N Range 08W County: San Juan									
Center of Proposed Design: Latitude         36.82073         Longitude         -107.67635         NAD:         □1927 ⋈ 1983									
Surface Owner: X Federal X State Private Tribal Trust or Indian Allotment									
Pit: Subsection F, G or J of 19.15.17.11 NMAC   Course Report Subm. Hed after 60 day									
3.    Below-grade tank: Subsection I of 19.15.17.11 NMAC TANK A									

Alternative Method:

Liner type: Thickness

Volume:

95

Tank Construction material: Steel

Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

bbl Type of fluid: Produced water

☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off

☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other Single wall/ Double bottom; no visible sidewalls

mil HDPE PVC Other

Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)  Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)  Four foot height, four strands of barbed wire evenly spaced between one and four feet  Alternate. Please specify							
6							
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)  Screen Netting Other  Monthly inspections (If netting or screening is not physically feasible)							
Monthly hispections (if fletting of screening is not physically feasible)							
Signs: Subsection C of 19.15.17.11 NMAC  12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers  Signed in compliance with 19.15.16.8 NMAC							
8.							
Variances and Exceptions:  Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.  Please check a box if one or more of the following is requested, if not leave blank:  Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.  Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.							
9.							
Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptance are provided below. Siting criteria does not apply to drying pads or above-grade tanks.	ptable source						
General siting							
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA						
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit.  NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes No						
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. ( <b>Does not apply to below grade tanks</b> )  - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No						
Within the area overlying a subsurface mine. (Does not apply to below grade tanks)  - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No						
<ul> <li>Within an unstable area. (Does not apply to below grade tanks)</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</li> </ul>	☐ Yes ☐ No						
Within a 100-year floodplain. (Does not apply to below grade tanks) - FEMA map	☐ Yes ☐ No						
Below Grade Tanks							
Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	Yes No						
Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;.  - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site							
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)							
Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.)  - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No						

Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial	Yes No					
application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image						
Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application.  NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No					
Within 100 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No					
Temporary Pit Non-low chloride drilling fluid						
Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No					
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No					
Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;  - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	Yes No					
Within 300 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No					
Permanent Pit or Multi-Well Fluid Management Pit						
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No					
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No					
Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.						
- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	Yes No					
Within 500 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No					
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 N  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the document of the standard of						
attached.  Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC						
Previously Approved Design (attach copy of design) API Number: or Permit Number:						
Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the doc attached.  Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  A List of wells with approved application for permit to drill associated with the pit.  Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19 and 19.15.17.13 NMAC  Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC						
Previously Approved Design (attach copy of design) API Number: or Permit Number:						

Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the	documents are							
attached.  ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC ☐ Climatological Factors Assessment ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC ☐ Quality Control/Quality Assurance Construction and Installation Plan ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC ☐ Nuisance or Hazardous Odors, including H₂S, Prevention Plan ☐ Emergency Response Plan ☐ Oil Field Waste Stream Characterization ☐ Monitoring and Inspection Plan ☐ Erosion Control Plan ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC								
Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.	L'IN							
Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Multi-well F Alternative  Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial Alternative Closure Method	luid Management Pit							
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.  Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC  Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC  Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)  Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC								
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable sour provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. Fig. 15.17.10 NMAC for guidance.								
Ground water is less than 25 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA							
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA							
Ground water is more than 100 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA							
Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa ake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site								
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image								
Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application.  NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site								
Written confirmation or verification from the municipality; Written approval obtained from the municipality  Yes No								
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No							
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance								

adopted pursuant to NMSA 1978. Section 3-27-3, as amended								
adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality; Written approval obtained from the municipality								
Within the area overlying a subsurface mine Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No							
Within an unstable area.  - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☐ No							
Within a 100-year floodplain FEMA map								
16.								
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure p by a check mark in the box, that the documents are attached.  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC  Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17  Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19  Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC  Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC  Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC  Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cam  Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC	7.11 NMAC 9.15.17.11 NMAC							
Operator Application Certification:  I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and be	lief							
Name (Print): Title:								
Signature: Date:								
Signature. Date.								
e-mail address: Telephone:								
	3/2017							
e-mail address:    Telephone:	3/2017_							
e-mail address:    Telephone:								
e-mail address:    Telephone:								
e-mail address:    Telephone:	ot complete this							

1	22.	
	Operator Closure Certification:	
	I hereby certify that the information and attachments submitted with this closure republief. I also certify that the closure complies with all applicable closure requirement	
	Name (Print): Steve Moskal	Title: Field Environmental Coordinator
	Signature: Stars Mux	Date:August 7, 2017
	e-mail address: <u>steven.moskal@bp.com</u>	Telephone: (505) 326-9497

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

### State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

			Rele	ease Notifi	cation	and Co	orrective A	ction				
						<b>OPERA</b>	TOR	☐ In	tial Report     Final Report			
Name of Co	ompany: B	P				Contact: Steve Moskal						
Address: 20	00 Energy	Court, Farm	ington, N	M 87401		Telephone No.: 505-326-9497						
Facility Na							e: Natural gas					
Surface Owner: Federal Mineral Owner						Federal		API	No. 3004522019			
LOCATIO							LEACE					
Unit Letter	Section	Township	Range	Feet from the		South Line	Feet from the	East/West Line	County: San Juan			
O	09	30N	08W	890	South	South Elite	1,515	East	County: Suit Vuin			
Latitude 36.82073° Longitude -107.								535°				
						OF REL						
Type of Rele	ase: none			11282	CICL		Release: unknow	vn Volum	e Recovered: N/A			
Source of Re	lease: belov	w grade tank -	95 bbl				Hour of Occurrence	ce: Date ar	d Hour of Discovery: none			
Was Immedi	ata Matica (	Given?				none If YES, To	Whom?					
was mineur	ate Notice (		Yes 🗵	No Not R	equired	II IES, IC	whom:					
By Whom?						Date and I						
Was a Water	course Read					If YES, V	olume Impacting	the Watercourse.				
			Yes 🗵	No								
If a Watercon	urse was Im	pacted, Descr	ibe Fully.	k								
Describe Cau	ise of Probl	em and Reme	dial Actio	n Taken.* Sampl	ing of the	e soil beneath	the BGT was do	ne during remov	al. Soil analysis resulted for TPH,			
				ds. Field reports								
Describe Are	a Affected	and Cleanup	Action Tal	cen.* No action n	ecessary	. Final labora	tory analysis dete	ermined no remed	lial action is required.			
I hereby certi	ify that the	information a	ven above	is true and com	alete to the	he hest of my	knowledge and u	inderstand that n	ursuant to NMOCD rules and			
									eleases which may endanger			
									elieve the operator of liability			
should their	operations h	nave failed to	adequately	investigate and	remediat	e contaminat	ion that pose a thr	eat to ground wa	ter, surface water, human health			
				otance of a C-141	report d	oes not reliev	e the operator of	responsibility for	compliance with any other			
federal, state	, or local la	ws and/or regu	ilations.				OH COM	CEDILLETO	T DIMIGION			
Signature:	ma	27					OIL CON	SERVATIO	N DIVISION			
Signature:	Mes 11	ma)										
Printed Name	e: Steve Mo	skal				Approved by	Environmental S	pecialist:				
Title: Field F	nvironmen	tal Coordinato	ır			Approval Da	te:	Expiratio	n Date:			
Title, Field E	nvnomnen	iai Coordinato	1			Appiovai Da		Expiratio	ii Date.			
E-mail Addre	ess: steven.i	moskal@bp.co	om			Conditions o	f Approval:		Attached			
Date: August 7 2017 Phone: 505-326-9407						Attached						

<sup>\*</sup> Attach Additional Sheets If Necessary

# bp



BP America Production Company 200 Energy Court Farmington, NM 87401

September 12, 2016

Bureau of Land Management Gary Smith 6251 College Suite A Farmington, NM 87402

#### VIA EMAIL

Re: Notification of plans to close/remove a below grade tank

Well Name: MOORE 005A

API#: 3004522019

Dear Mr. Smith,

As part of the NM "Pit Rule": 19.15.17.13 Closure Requirements, Paragraph J. BP America Production Company (BP) is required to notify the surface owner of BP's plans to close/remove a below grade tank. BP wishes to inform you of our plans to close/remove the below grade tank on its well pad located on your surface. BP plans to commence this work on or about September 15, 2016. If there aren't any unforeseen problems, the work should be completed within 10 working days.

As a point of clarification, BP will be closing the below grade tank and either operating without one or replacing it with an above ground tank, the well site will continue to operate.

If witnessing of the tank removal is required please contact me for a specific time (505)-326-9497.

Sincerely,

Steven Moskal

BP America Production Company

#### Moskal, Steven

From:

Railsback, Farrah (CH2M HILL)

Sent:

Monday, September 12, 2016 3:36 PM

To:

Smith, Cory, EMNRD; Fields, Vanessa, EMNRD (Vanessa.Fields@state.nm.us)

Cc:

jeffcblagg@aol.com; blagg\_njv@yahoo.com; Moskal, Steven

Subject:

BP Pit Close Notification - MOORE 005A

**BP America Production Company** 

200 Energy Court Farmington, NM 87401 Phone: (505) 326-9200

SENT VIA E-MAIL TO: CORY.SMITH@STATE.NM.US; VANESSA.FIELDS@STATE.NM.US

September 12, 2016

New Mexico Oil Conservation Division 1000 Rio Brazos Road Aztec, New Mexico 87410

RE: Notice of Proposed Below-Grade Tank (BGT) Closure

MOORE 005A API 30-045-22019 (O) Section 09 – T30N – R08W San Juan County, New Mexico

Dear Mr. Cory Smith and Mrs. Vanessa Fields,

In regards to the captioned subject and requirements of the NMOCD pit rule, this letter is notification that BP is planning to close a 95 bbl BGT that will no longer be operational at this well site. We anticipate this work to start on or around September 15, 2016.

Should you have any questions, please feel free to contact BP at our Farmington office.

Sincerely,

Steven Moskal BP Field Environmental Coordinator

(505) 326-9497

#### Farrah Railsback

**BGT Project Support** 970-946-9199 -cell

This email and any attachments are intended only for the addressee(s) listed above and may contain confidential, proprietary, and/or privileged information. If you are not an intended recipient, please immediately advise the sender by return email, delete this email and any attachments, and destroy any copies of same. Any unauthorized review, use, copying disclosure or distribution of this email and any attachments is prohibited.

CLIENT: BP	C.   87413	API #:			
FIELD REPORT:	(circle one): BGT CONFIRMATION / RE	ELEASE INVESTIGATION / OT	THER:	PAGE #: <b>1</b>	of 1
SITE INFORMATION	: SITE NAME: MOORE :	# 5A		DATE STARTED: 09/	15/16
		NM CNTY: SJ	ST: NM	DATE FINISHED:	
1/4-1/4/FOOTAGE: 890'S / 1,51		E: FEDERAL STATE / F	FEE / INDIAN	ENVIRONMENTAL	
	PROD. FORMATION: MV CONT	CTDIVE			VL
REFERENCE POINT				GL ELEV.:	5 864'
	GPS COORD.: 36.82			RING FROM W.H.: 109', S	
,	GPS COORD.:				
3)					
4)	GPS COORD.:		DISTANCE/BEA	RING FROM W.H.:	
SAMPLING DATA:	CHAIN OF CUSTODY RECORD(S) # OR L	AB USED: HALL			OVM READING
1) SAMPLE ID: 5PC - TB @ 7'				5B/8021B/300.0 (CI)	(ppm)
2) SAMPLE ID:	SAMPLE DATE:	SAMPLE TIME: L	LAB ANALYSIS:		
3) SAMPLE ID:	SAMPLE DATE:	SAMPLE TIME:	LAB ANALYSIS:		
4) SAMPLE ID:	SAMPLE DATE:	SAMPLE TIME: L	LAB ANALYSIS:		
SOIL DESCRIPTION	SOIL TYPE: SAND SILTY SAND SILT	/ SILTY CLAY / CLAY (GRAVEL	OTHER ROAD B	ASE BENEATH BGT.	
SOIL COLOR: MODERATI	E BROWN PL	ASTICITY (CLAYS): NON PLASTIC			SHLY PLASTIC
COHESION (ALL OTHERS): NON COHESIVE SLIGHTLY CONSISTENCY (NON COHESIVE SOILS): LC	OSE FIRM DENSE / VERY DENSE HO	ENSITY (COHESIVE CLAYS & SI CODOR DETECTED: YES NO E			
MOISTURE: DRY/SLIGHTLY MOIST/MOIST/W					
SAMPLE TYPE: GRAB (COMPOSITE) # DISCOLORATION/STAINING OBSERVED: YES N		IY AREAS DISPLAYING WETNESS	S: YES NO EXPLAN	IATION -	
SITE OBSERVATION		S NO EXPLANATION -			
APPARENT EVIDENCE OF A RELEASE OBSERVE	DAND/OR OCCURRED: YES NO EXPLANA	ATION:			
EQUIPMENT SET OVER RECLAIMED AREA: OTHER: NMOCD REP. PRESENT TO WIT				L DOAD BASE	
OTHER: NINOCO REF. FREGERI TO WIT	NESS CONFINIMATION SAMELING.	COLLECTED SOIL SANITE	LE FRONI DENEATI	T KUAD DAGE.	
SOIL IMPACT DIMENSION ESTIMATION:	NA ft. X NA ft			IMATION (Cubic Yards) :	NA
		NEAREST SURFACE WATER:	<1,000' NMOC	D TPH CLOSURE STD: 1,	000 ppm
SITE SKETCH	BGT Located: off on site	PLOT PLAN circle	e: attached OVM	CALIB. READ. = NA p	ppm RF = 0.52
SEPARA	TOR	and the second		- Tar	pm
		⊕ W.H.	TIME	NA am/pm DATE:	NA
COMPR	ESSOR		'[	MISCELL. NO	TES
	FENCE		_	O:	
PBC T.B.				EF#: P - 715	
В.	G. X			D: VHIXONEVB2	2
	BERM		-	J#:	4/10
	PRO	D.			06/16
BERM	TAN		Tan	k OVM = Organic Vapor M	eter
			A		N
		X	- S.P.D.	BGT Sidewalls Visible: Y /	N
NOTES: BGT = BELOW-GRADE TANK; E.D. = EXCAVATION		V, T.H. = TEST HOLE; ~ = APPROX.; W.	/H. = WELL HEAD;	BGT Sidewalls Visible: Y /	
	OW-GRADE TANK LOCATION; SPD = SAMPLE POINT : WALL; DW - DOUBLE WALL; SB - SINGLE BOTTOM;		VALL; NA - NOT M	agnetic declination: 10	0°E
NOTES: GOOGLE EARTH IMAGE		ONSITE: 09/15/10	6		

### **Analytical Report**

Lab Order 1609891

Date Reported: 9/19/2016

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

MOORE #5A Project:

Lab ID: 1609891-001 Client Sample ID: 5PC-TB @ 7' (95)

Collection Date: 9/15/2016 9:45:00 AM

Received Date: 9/16/2016 7:15:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	MRA
Chloride	ND	30	mg/Kg	20	9/16/2016 12:37:11 PM	27545
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S			Analyst:	TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	9/16/2016 10:09:03 AM	27534
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	9/16/2016 10:09:03 AM	27534
Surr: DNOP	98.3	70-130	%Rec	1	9/16/2016 10:09:03 AM	27534
EPA METHOD 8015D: GASOLINE RAI	NGE				Analyst:	NSB
Gasoline Range Organics (GRO)	ND	3.4	mg/Kg	1	9/16/2016 9:56:46 AM	27431
Surr: BFB	77.8	68.3-144	%Rec	1	9/16/2016 9:56:46 AM	27431
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.017	mg/Kg	1	9/16/2016 9:56:46 AM	27431
Toluene	ND	0.034	mg/Kg	1	9/16/2016 9:56:46 AM	27431
Ethylbenzene	ND	0.034	mg/Kg	1	9/16/2016 9:56:46 AM	27431
Xylenes, Total	ND	0.069	mg/Kg	1	9/16/2016 9:56:46 AM	27431
Surr: 4-Bromofluorobenzene	90.1	80-120	%Rec	1	9/16/2016 9:56:46 AM	27431

Matrix: SOIL

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

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- 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
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 5
- Sample pH Not In Range
- RLReporting Detection Limit
- Sample container temperature is out of limit as specified

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1609891

19-Sep-16

Client:

Blagg Engineering

Project:

MOORE #5A

Sample ID MB-27545

SampType: mblk

**PQL** 

1.5

TestCode: EPA Method 300.0: Anions

Client ID:

**PBS** 

Batch ID: 27545

Result

RunNo: 37279

Prep Date: 9/16/2016

Analysis Date: 9/16/2016

SeqNo: 1157481

%REC LowLimit

Units: mg/Kg

HighLimit

%RPD **RPDLimit** 

Qual

Analyte Chloride

ND

Sample ID LCS-27545

SampType: Ics Batch ID: 27545 TestCode: EPA Method 300.0: Anions RunNo: 37279

Prep Date: 9/16/2016

Client ID: LCSS

Units: mg/Kg

Analysis Date: 9/16/2016

SeqNo: 1157482

Analyte

**PQL** 

1.5

SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD **RPDLimit** 

Qual

Chloride

15

Result

15.00

SPK value SPK Ref Val

96.9

90

110

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded Н

ND Not Detected at the Reporting Limit

RPD outside accepted recovery limits R

% 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

P Sample pH Not In Range

Reporting Detection Limit

Sample container temperature is out of limit as specified

Page 2 of 5

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1609891

19-Sep-16

Client:

Blagg Engineering

Project:

MOORE #5A

Sample ID LCS-27534

SampType: LCS

TestCode: EPA Method 8015M/D: Diesel Range Organics

LowLimit

62.6

70

Client ID:

LCSS

Batch ID: 27534

RunNo: 37244

Prep Date: 9/16/2016

Analysis Date: 9/16/2016

50.00

5.000

SeqNo: 1155983

Analyte Diesel Range Organics (DRO) Result 46 4.7

Result

ND

ND

10

PQL SPK value SPK Ref Val

%REC

91.6

94.7

Units: mg/Kg HighLimit

124

130

%RPD **RPDLimit** 

Qual

Sample ID MB-27534

Surr: DNOP

Surr: DNOP

SampType: MBLK

TestCode: EPA Method 8015M/D: Diesel Range Organics

%RPD

Client ID: PBS

Prep Date: 9/16/2016

Batch ID: 27534 Analysis Date: 9/16/2016

PQL

10

50

RunNo: 37244 SegNo: 1155986

%REC LowLimit

HighLimit

Units: mg/Kg

**RPDLimit** Qual

Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO)

10.00

SPK value SPK Ref Val

101

70

130

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- 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
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Page 3 of 5

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1609891

19-Sep-16

Client:

Blagg Engineering

Project:

MOORE #5A

Sample ID MB-27431

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

Client ID:

Batch ID: 27431

ND

RunNo: 37249

SPK value SPK Ref Val %REC

Prep Date:

9/15/2016

Analysis Date: 9/16/2016

PQL

5.0

SeqNo: 1157381

Analyte Gasoline Range Organics (GRO)

Result

Units: mg/Kg

144

HighLimit

**RPDLimit** 

Qual

Surr: BFB

770

1000

76.5

68.3

LowLimit

LowLimit

%RPD

Sample ID LCS-27431

SampType: LCS

TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS

Batch ID: 27431

RunNo: 37249

Prep Date:

9/15/2016

Analysis Date: 9/16/2016

SeqNo: 1157382

Units: mg/Kg

Analyte Gasoline Range Organics (GRO) Result

SPK value SPK Ref Val PQL 5.0 25.00 1000

%REC 87.8

0

80

%RPD **HighLimit** 120

**RPDLimit** Qual

Surr: BFB

22 840

83.8

68.3

144

#### Qualifiers:

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

Page 4 of 5

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1609891

19-Sep-16

Client:

Blagg Engineering

Project:

MOORE #5A

Sample ID MB-27431	SampT	ype: ME	BLK	TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batch	ID: <b>27</b> 4	431	RunNo: 37249						
Prep Date: 9/15/2016	Analysis D	ate: 9/	16/2016	SeqNo: 1157397		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.90		1.000		90.4	80	120			
Sample ID LCS-27431	SampT	ype: LC	s	Tes	Code: El	PA Method	8021B: Volat	tiles		
Client ID: LCSS	Batch	ID: <b>27</b> 4	431	F	tunNo: 3	7249				
Prep Date: 9/15/2016	Analysis D	ate: 9/	16/2016	S	SeqNo: 1	157398	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Prep Date: 9/15/2016 Analysis Date: 9/16/2016			8	SeqNo: 1157398 Units: mg/Kg			g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	92.4	75.3	123			
Toluene	0.93	0.050	1.000	0	93.4	80	124			
Ethylbenzene	0.95	0.050	1.000	0	94.9	82.8	121			
Xylenes, Total	2.8	0.10	3.000	0	93.9	83.9	122			
Surr: 4-Bromofluorobenzene	0.94		1.000		94.1	80	120			

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- 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
- Page 5 of 5

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified



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

# Sample Log-In Check List

Client Name: BLAGG	Work Order Nu	mber: 1609891		RcptNo: 1
Received by/date:	09/16/16			
Logged By: Anne Thor	rne 9/16/2016 7:15:00	MA (	ame Am	
Completed By: Anne Tho	me 9/16/2016		aone Sham	
Reviewed By:	09/16/16		0,012	
Chain of Custody				
1. Custody seals intact on s	ample bottles?	Yes	No 🗆	Not Present
2. Is Chain of Custody comp	plete?	Yes 🗹	No 🗌	Not Present
3. How was the sample deliv	vered?	Courier		
Log In				
4. Was an attempt made to	cool the samples?	Yes 🗸	No 🗆	NA 🗆
5. Were all samples receive	d at a temperature of >0° C to 6.0°C	Yes 🗹	No 🗆	NA 🗆
6. Sample(s) in proper contr	ainer(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	to bottles?	Yes	No 🗹	NA 🗆
10.VOA vials have zero head	dspace?	Yes	No 🗆	No VOA Vials
11. Were any sample contain	ners received broken?	Yes	No 🗹	# -t
		_		# of preserved bottles checked
<ol><li>Does paperwork match be (Note discrepancies on ch</li></ol>		Yes 🗹	No 🗆	for pH: (<2 or >12 unless noted
13. Are matrices correctly ide	• *	Yes 🗸	No 🗆	Adjusted?
14. Is it clear what analyses v	·	Yes 🗹	No 🗆	
15. Were all holding times ab		Yes 🗹	No 🗆	Checked by:
(If no, notify customer for	authorization.)			
Special Handling (if app	nlicable)			
16. Was client notified of all d		Yes	No 🗆	NA 🗹
			110	101 (2)
Person Notified:  By Whom:	Da	- AUTONO CONTROL CONTROL SUBSTITUTE	hono D Fox	☐ In Person
Regarding:	Vi	a: eMail P	Phone Fax	III Person
Client Instructions:	de allesano. El 1-arrivo ao adolfismo Pribliadade carteriristratural carteriale a anticole	Plane definition of Property and a second of the Control of the	e di ce l'articlis dubuche. Ta abbi dubic b'ad	data dibanda 1995 or you de to dobe or did 1995
17. Additional remarks:				
18. Cooler Information				
Cooler No Temp °C	Condition   Seal Intact   Seal No	Seal Date	Signed By	
1 1.4	Good Yes	1.		-

Chain-of-Custody Record				Tum-Around	rime:	SAME				н	A	П	E	NV	TR	20	NP	4E	NT	ΆΙ		
Client: BLAGG ENGR. / BP AMERICA			☐ Standard	☑ Rush _	DAY )	HALL ENVIRONMENTAL ANALYSIS LABORATORY																
				Project Name	www.hallenvironmental.com																	
Mailing Address: P.O. BOX 87				MOORE # 5A				4901 Hawkins NE - Albuquerque, NM 87109														
BLOOMFIELD, NM 87413				Project #:				Te	1. 50	5-34	5-3	975	1	Fax !	505-	-345	-410	)7				
Phone #: (505) 632-1199								Analysis Request														
email or Fax#:				Project Manager:								$\top$		4)				300.1)	$\Box$	$\top$		
QA/QC Package:  Standard Level 4 (Full Validation)			NELSON VELEZ			-MBIs (8021B)	s only)	/ MRO)			(S)		PO4,SO	PCB's			water - 300			Φ		
Accreditation:				Sampler:	NELSON VI	ELEZ ny	₹ (8	(Ga	SRO	1	7	SIN		02,	3082			/ wa		-	dw	
□ NELAP □ Other				Onlice:	AND DESCRIPTION OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED I	m Note:	1	+ TPH (Gas	0/1	418.	504.	8270	10	03,1	8 / 8		(A)	300.00			e sa	r N
□ EDD (Type)			Sample Temp	erature: /,	4	1	BE +	(GR	pot	poc	or	etal	CI,N	cide	(A)	i-VC	1 3		ole	osit	(٧٥	
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEALNO.	BTEX ←₩₩	BTEX + MTBE	TPH 8015B (GRO / DRO	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO <sub>3</sub> ,NO <sub>2</sub> ,PO <sub>4</sub> ,SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil -		Grab sample	5 pt. composite sample	Air Bubbles (Y or
9/15/16	0945	SOIL	5PC - TB @ ~7 ' (95)	4 oz 1	Cool	700	٧		٧									٧	$\Box$		٧	
					-																	
																					$\top$	
																				7	$\top$	
							_											$\Box$	$\top$	1	$\top$	
				***************************************															$\dashv$	$\forall$	$\top$	_
									$\neg$				-						$\dashv$	1	$\top$	
-													-		_				$\dashv$	+	$\forall$	
								$\Box$											$\dashv$	+	+	
Date:, Time: Relinquished by:			ed,by,	Received by:		Date Time	Ren	narks	:	BILL DIRECTLY TO BP USING THE CIRCLED CONTACT WITH											_	
9/15/16/154 9/len 7			Mistre Lobelous		9/15/16 1754				CORRESPONDING VID & REFERENCE # WHEN APPLICABLE;  Vance Hixon Steve Moskal John Ritchie													
Date: Time: Relinquished by:			Received by:	July	Date Time 109/16/16	VID			Vance Hixon VHIXONEVB2				1					hn Ri				
9/18/14	1951	1/M	of hills (	1 / 08	en Il	- A715		erend			P - 7			_								
	ii necessary,	samples sub	mitted to Hall Environmental may be sul	pcontracted to other a	accredited laboratorie	es. This serves as notice of	of this	possib	nity. /	any sul	b-con	tracte	d data	a will b	e clea	arly no	tated	on the	analyt	ical re	port.	



