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 Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

Incident ID	NVF1811642088
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

			Ites	Ponsi	ioic i ai c	,	
Responsible Party: BP America Production Co.			OGRID: 7	78	Final		
Contact Name: Steve Moskal			Contact Telephone: (505) 330-9179				
Contact email: steven.moskal@bpx.com			Incident #	(assigned by OCD)	NVF1811642088		
Contact mail	ing address:	1199 Main Street	, Suite 101, Dura	ngo CC), 81301		
			Location	of R	Release So	ource	
Latitude: 36.6	50215°					Longita	ude: 108.15885
					(NAD 8	33 in decimal degrees to	
Site Name: G	allegos Can	yon Unit 089E			Site Type:	Natural Gas Produ	ction Well Pad
Date Release	Discovered	February 27, 201	8		API#: 30-0	45-26187	
			1				
Unit Letter	Section	Township	Range		Coun	ity	
L	6	T27N	R12W	San Juan			
						justification for the vol	
Crude Oi		Volume Released (bbls)			Volume Recover	red (bbls)	
Produced	Water	ater Volume Released (bbls): <u>Unknown; historic</u>		<u>oric</u>	Volume Recover	red (bbls):	
Is the concentration of dissolved chloride in produced water >10,000 mg/l?			e in the	☐ Yes ☐ No			
⊠ Condensa	ite			<u>toric</u>	Volume Recover	ed (bbls): <u>0 bbls</u>	
Natural Gas Volume Released (Mcf)			Volume Recover	red (Mcf)			
Other (de	Other (describe) Volume/Weight Released (provide units))	Volume/Weight	Recovered (provide units)		
	e identified a					osure at the produc verflow events prio	etion well site. The source of the r to automation.

State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by	If YES, for what reason(s) does the responsible party consider this a major release?	
19.15.29.7(A) NMAC?		
☐ Yes ⊠ No		
If VES was immediate no	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	
II 115, was immediate no	once given to the OCD: By whom: To whom: when and by what means (phone, chian, etc):	
	Initial Response	
The responsible p	party must undertake the following actions immediately unless they could create a safety hazard that would result in injury	
	ase has been stopped.	
The impacted area has	s been secured to protect human health and the environment.	
Released materials ha	we been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
All free liquids and re	ecoverable materials have been removed and managed appropriately.	
If all the actions described	d above have not been undertaken, explain why:	
Per 19 15 29 8 B (4) NM	AC the responsible party may commence remediation immediately after discovery of a release. If remediation	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Printed Name:	Title:	
Signature:	Date:	
email:	Telephone:	
OCD Only		
		
Received by:	Date:	

State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>100</u> (ft bgs)	
Did this release impact groundwater or surface water?	☐ Yes ⊠ No	
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	⊠ Yes □ No	
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ⊠ No	
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ⊠ No	
Are the lateral extents of the release 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?	☐ Yes ⊠ No	
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ⊠ No	
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ⊠ No	
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ⊠ No	
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ⊠ No	
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ⊠ No	
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ⊠ No	
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ⊠ No	
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.		
<u>Characterization Report Checklist</u> : Each of the following items must be included in the report.		
Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. Field data Data table of soil contaminant concentration data Depth to water determination Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release Boring or excavation logs Photographs including date and GIS information Topographic/Aerial maps Laboratory data including chain of custody		

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: Each of the following items must be	be included in the plan.
 ☑ Detailed description of proposed remediation technique ☑ Scaled sitemap with GPS coordinates showing delineation poin ☑ Estimated volume of material to be remediated ☑ Closure criteria is to Table 1 specifications subject to 19.15.29 ☑ Proposed schedule for remediation (note if remediation plan ting) 	.12(C)(4) NMAC
Deferral Requests Only: Each of the following items must be co	onfirmed as part of any request for deferral of remediation.
Contamination must be in areas immediately under or around predeconstruction.	production equipment where remediation could cause a major facility
Extents of contamination must be fully delineated.	
Contamination does not cause an imminent risk to human heal	th, the environment, or groundwater.
rules and regulations all operators are required to report and/or file	acceptance of a C-141 report does not relieve the operator of
Printed Name:	Title:
Signature: Date:	
email:	Telephone:
OCD Only	
Received by:	
Approved	f Approval
Signature:	Date:

State of New Mexico Oil Conservation Division

Closure Report Attachment Checklist: Each of the following items must be included in the closure report.

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

A scaled site and sampling diagram as described in	n 19.15.29.11 NMAC		
Photographs of the remediated site prior to backfil must be notified 2 days prior to liner inspection)	ll or photos of the liner integrity if applicable (Note: appropriate OCD District office		
☐ Laboratory analyses of final sampling (Note: appro	opriate ODC District office must be notified 2 days prior to final sampling)		
Description of remediation activities			
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.			
Printed Name: _Steve Moskal	Title: Environmental Coordinator		
Signature: Municipal Signature:	Date:December 17, 2019		
email: <u>steven.moskal@bpx.com</u>	Telephone: <u>(505) 330-9179</u>		
OCD Only			
Received by: OCD	Date: <u>12/17/19</u>		
Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.			
Closure Approved by:	Date: _7/30/2020		
Printed Name: Cory Smith	Title: Environmental Specialist		

BP America GCU 089E

(L) Sec 6 – T27N – R12W San Juan County, New Mexico API: 30-045-26187

Summary Record of Impact Remediation

<u>February 22, 2018</u> Conduct closure sampling for a 95 barrel below grade tank (BGT) that was being taken out of service. Soils with visual evidence of hydrocarbon impacts were encountered.

<u>February 27, 2018</u> Receive final laboratory analytical results from BGT sampling. Test results indicate that the soils fail the site ranking. Site closure standard determined at 100 ppm TPH, 50 ppm total BTEX (with 10 ppm benzene) and 600 ppm Chlorides based on:

Horizontal Distance to Dry Water Course < 200 feet Distance to Nearest Water Well > 1,000 feet Depth to Groundwater > 100 feet

April 3, 2018 BP submits remediation plan (NMOCD Form C-141, BLM Sundry Notice) with intent to remediate soils on-site via soil shredding.

April 19, 2018 BP submits BGT closure report (NMOCD Form C-144).

May 9, 2018 NMOCD approves remediation plan.

May 14, 2018 NMOCD approves BGT closure report.

May 24, 2018 BLM approves remediation plan.

June 4, 2018 Initiate removal of impacts via excavation and on-site soil shredding.

June 5, 2018 Conduct excavation closure sampling.

<u>June 6, 2018</u> Receive rush laboratory results. All excavation closure samples fail on total petroleum hydrocarbons (TPH). Conduct treated soil pile (TSP) sampling. Continue with remedial excavation/shredding.

June 7, 2018 Conduct excavation closure sampling. Continue with remedial excavation/shredding.

June 8, 2018 Conduct TSP closure sampling.

June 11, 2018 Conduct excavation and TSP closure sampling. Continue with remedial excavation/shredding.

June 12, 2018 Conduct excavation closure sampling. Continue with remedial excavation/shredding.

June 14, 2018 Conduct TSP closure sampling. Continue with remedial excavation/shredding.

June 18, 2018 Conduct excavation and TSP closure sampling. Continue with remedial excavation/shredding.

June 20, 2018 Conduct excavation closure sampling. Continue with remedial excavation/shredding.

June 25, 2018 Conduct excavation and TSP closure sampling. Continue with remedial excavation/shredding.

June 26, 2018 Conduct excavation closure sampling. Continue with remedial excavation/shredding.

June 27, 2018 Conduct excavation and TSP closure sampling. Continue with remedial excavation/shredding.

June 29, 2018 Conduct TSP closure sampling. Continue with remedial excavation/shredding.

<u>July 2, 2018</u> Conduct TSP closure sampling. Evaluate TSP effectiveness and determine that the site is not a candidate for soil shredding. Postpone additional excavation, begin removal of all treated soil piles and vadose zones and transport soils to Envirotech commercial landfarm.

<u>July 17, 2018</u> Resume remedial excavation and transportation of impacted soils to landfarm.

July 18, 2018 Conduct excavation closure sampling. Continue with remedial excavation.

July 23, 2018 Conduct excavation closure sampling. Continue with remedial excavation.

July 25, 2018 Conduct excavation closure sampling. Continue with remedial excavation.

<u>July 27, 2018</u> Conduct excavation closure sampling. Postpone additional remedial work pending approval to extend excavation off-site.

May 28, 2019 Receive Navajo Nation Heritage and Historic Preservation Department approval to extend remedial excavation off-site.

<u>August 5, 2019</u> Continue with remedial excavation and transportation of impacted soils to Envirotech landfarm.

August 7, 2019 Conduct excavation closure sampling. Continue with remedial excavation.

August 13, 2019 Conduct excavation closure sampling.

August 14, 2019 Receive rush laboratory reports. All samples pass site closure standard.

<u>August 17, 2019</u> Complete backfilling remedial excavation with clean imported soils. Reclamation is not necessary at this timeas the excavation area is on the active well pad and will be reclaimed at final abandonment.

BP America - GCU 89E

(L) Sec 6 – T27N – R12W San Juan County, New Mexico API: 30-045-26187

Excavation Closure Test Results

Updated: August 13, 2019

			E: 11	ı	ſ	TDII	TDII	TDII	TEDIT
Мар	Date	Description	Field OVM	BTEX	Chloride	TPH GRO	TPH DRO	TPH MRO	TPH Total
ID	Sampled	Description	(ppm)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
	6/5/2018	East Sidewall 5-pt (5'-13')	4,854	14.3	65.5	166	864	ND	1,030
	6/5/2018	North Sidewall 5-pt (5'-13')	5,484	20.9	44.2	231	684	ND	915
3	6/5/2018	West Sidewall 5-pt (5'-13')	5,365	25.8	44.6	273	1,330	112	1,715
	6/5/2018	South Sidewall 5-pt (5'-13')	720	1.03	42.2	21.4	153	ND	174.4
	6/5/2018	North Base 5-pt @ 15'	5,235	29.5	50.2	325	1,060	149	1,534
	6/5/2018	South Base 5-pt @ 15'	5,258	38.9	72.7	371	1,750	309	2,430
7	6/7/2018	Base 5-pt @ 20'	0.9	ND	ND	ND	ND	ND	ND
8	6/11/2018	North Base 5-pt @ 20'	1.3	ND	24.3	ND	ND	ND	ND
9	6/11/2018	Extended North Wall 5-pt (5'-18')	0.5	ND	41.2	ND	ND	ND	ND
10	6/12/2018	South Base 5-pt @ 20'	0.6	ND	ND	ND	ND	ND	ND
11	6/12/2018	Extended South Wall 5-pt (5'-18')	1.6	ND	28.1	ND	ND	ND	ND
12	6/18/2018	West Wall, South Half 5-pt (6'-18')	3,073			1,200	1,700	550	3,450
13	6/18/2018	East Wall, South Third 5-pt (6'-18')	4,190			1,400	650	220	2,270
14	6/20/2018	South Base, East Extension, 5-pt @ 19'	1.1	ND	34	ND	ND	ND	ND
15	6/25/2018	Northeast Base 6-pt (18'-22')	9.8	ND	41	ND	ND	ND	ND
16	6/25/2018	North Wall (East 1) 5-pt (6'-16')	2.3	ND	ND	ND	ND	ND	ND
	6/25/2018	East Wall (North 1) 5-pt (6'-18')	2.0	ND	ND	ND	ND	ND	ND
18	6/26/2018	Northeast Base #2 (19')	81.1	ND	ND	ND	ND	ND	ND
19	6/26/2018	North Wall (East 2) 5-pt (6'-16')	4.5	ND	ND	ND	ND	ND	ND
20	6/27/2018	Center Base (East 1) 5-pt @ 20'	43.7	ND	ND	ND	ND	ND	ND
21	6/27/2018	Center Base (East 2) 5-pt @ 20'	1.8	ND	ND	ND	ND	ND	ND
22	7/18/2018	Northeast Base #3 (18')	2.4	ND	41	ND	ND	ND	ND
23	7/18/2018	North Wall (East 3) 5-pt (6'-16')	0.8	ND	ND	ND	ND	ND	ND
24	7/23/2018	Northeast Base #4 (18')	1.8	ND	ND	ND	ND	ND	ND
25	7/23/2018	South Base #4 (20')	3,135	72.5	ND	2,100	970	280	3,350
26	7/25/2018	Southeast Corner (SEC) Base @ 20' (4-pt.)	5.5	ND	ND	ND	ND	ND	ND
27	7/25/2018	East Base @ 20' (3-pt.)	3.2	ND	ND	ND	ND	ND	ND
28	7/25/2018	S/SEC -SW @ 5'-18' (6-pt.)	0.7	ND	270	ND	ND	ND	ND
29	7/25/2018	E/SEC -SW @ 5'-18' (5-pt.)	0.0	ND	64	ND	ND	ND	ND
30	7/25/2018	East-SW @ 6'-18' (5-pt.)	0.5	ND	38	ND	ND	ND	ND
31	7/25/2018	N/NEC -SW @ 5'-17' (3-pt.)	0.0	ND	ND	ND	ND	ND	ND
32	7/25/2018	E/NEC -SW @ 5'-17' (3-pt.)	440	ND	ND	98	37	ND	135
25A	7/27/2018	South Base #4 (2) @ 29' (5-pt.)	4.1	ND	ND	ND	ND	ND	ND
25A	7/27/2018	South Base #4 ESW (23'-27') (6-pt.)	3.8	ND	ND	ND	ND	ND	ND
25A	7/27/2018	South Base #4 WSW (23'-27') (6-pt.)	1.6	ND	ND	ND	ND	ND	ND
32A	7/27/2018	E/NEC -SW @ 5'-17' (3-pt.) (2)	0.7	ND	38	ND	ND	ND	ND

Continuation with Offsite Excavation Activities – August, 2019

Map ID	Date Sampled	Description	Field OVM (ppm)	BTEX (mg/Kg)	Chloride (mg/Kg)	TPH GRO (mg/Kg)	TPH DRO (mg/Kg)	TPH MRO (mg/Kg)	TPH Total (mg/Kg)
33	8/7/2019	West Wall (II)-West Wall North Side (0'-9')	5.6	ND	204	ND	ND	ND	ND
34	8/7/2019	West Wall (II)-West Wall South Side (0'-9')	3.9	ND	121	ND	ND	ND	ND
35	8/7/2019	West Wall (II)-North Face (3'-18')	2.6	ND	105	ND	ND	ND	ND
36	8/7/2019	West Wall (II)-North Base @ 20'	1.4	ND	25.3	ND	ND	ND	ND
37	8/7/2019	West Wall (II)-South Base @ 24'	2.6	ND	21.5	ND	ND	ND	ND
38	8/7/2019	West Wall (II)-West Wall North Side (10'-18')	1.0	ND	73.7	ND	ND	ND	ND
39	8/7/2019	West Wall (II)-West Wall South Side (10'-20')	0.7	ND	97.5	ND	ND	ND	ND
40	8/13/2019	South Wall (II)-East Base (27')	5.5	ND	ND	ND	ND	ND	ND
41	8/13/2019	South Wall (II)-SE Corner Wall (4'-25')	2.4	ND	199	ND	ND	ND	ND
42	8/13/2019	South Wall (II)-South Mid Wall (4'-25')	3.0	ND	97.8	ND	ND	ND	ND
43	8/13/2019	South Wall (II)-West Base (24')	2.5	ND	ND	ND	ND	ND	ND
44	8/13/2019	South Wall (II)-SW Corner Wall (4'-22')	3.6	ND	142	ND	ND	ND	ND

Site Closure Standard = 100 ppm total TPH, 50 ppm BTEX, 600 ppm Chloride

XXXX All laboratory test result highlighted in yellow failed the site closure standard. These sample zones were further excavated and re-sampled to demonstrate closure.



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Received by OCD: 12/17/2019 4:25:45 Page 19 of 196





Analytical Report

Report Summary

Client: BP America Production Co.
Chain Of Custody Number:

Samples Received: 6/5/2018 12:53:00PM

Job Number: 03143-0424 Work Order: P806006

Project Name/Location: GCU 89E

Report Reviewed By:	Waltet Hinkman	Date:	6/6/18	
	Walter Hinchman, Laboratory Director			
		Date:	6/6/18	

Tim Cain, Project Manager



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.

Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

Envirotech, Inc, currently holds the appropriate and available Utah TNI certification NM009792018-1 for the data reported.

5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

laboratory@envirotech-inc.com

envirotech-inc.com



BP America Production Co. Project Name: GCU 89E

PO Box 22024 Project Number: 03143-0424 Reported:
Tulsa OK, 74121-2024 Project Manager: Steve Moskal 06-Jun-18 15:58

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
East Wall 5-pt (5'-13')	P806006-01A	Soil	06/05/18	06/05/18	Glass Jar, 4 oz.
North Wall 5-pt (5'-13')	P806006-02A	Soil	06/05/18	06/05/18	Glass Jar, 4 oz.
West Wall 5-pt (5'-13')	P806006-03A	Soil	06/05/18	06/05/18	Glass Jar, 4 oz.
South Wall 5-pt (5'-13')	P806006-04A	Soil	06/05/18	06/05/18	Glass Jar, 4 oz.
North Base 5-pt @ 15'	P806006-05A	Soil	06/05/18	06/05/18	Glass Jar, 4 oz.
South Base 5-pt @ 15'	P806006-06A	Soil	06/05/18	06/05/18	Glass Jar, 4 oz.

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5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865



Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: Project Manager: 03143-0424 Steve Moskal Reported:

06-Jun-18 15:58

East Wall 5-pt (5'-13') P806006-01 (Solid)

		Reporting	00 01 (50						
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Toluene	1610	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Ethylbenzene	1260	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
p,m-Xylene	9100	200	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
o-Xylene	2300	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Total Xylenes	11400	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Total BTEX	14300	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		101 %	50-	-150	1823004	06/05/18	06/05/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	166	20.0	mg/kg	1	1823004	06/05/18	06/05/18	EPA 8015D	
Diesel Range Organics (C10-C28)	864	250	mg/kg	10	1823008	06/05/18	06/05/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	500	mg/kg	10	1823008	06/05/18	06/05/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		110 %	50-	-150	1823004	06/05/18	06/05/18	EPA 8015D	
Surrogate: n-Nonane		292 %	50-	-200	1823008	06/05/18	06/05/18	EPA 8015D	Surr2
Anions by 300.0/9056A									
Chloride	65.5	20.0	mg/kg	1	1823009	06/05/18	06/05/18	EPA 300.0/9056A	

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5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865



Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: Project Manager: 03143-0424 Steve Moskal Reported:

06-Jun-18 15:58

North Wall 5-pt (5'-13') P806006-02 (Solid)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Toluene	2380	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Ethylbenzene	1840	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
p,m-Xylene	13300	200	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
o-Xylene	3410	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Total Xylenes	16700	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Total BTEX	20900	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		101 %	50-	150	1823004	06/05/18	06/05/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	231	20.0	mg/kg	1	1823004	06/05/18	06/05/18	EPA 8015D	
Diesel Range Organics (C10-C28)	684	125	mg/kg	5	1823008	06/05/18	06/05/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	250	mg/kg	5	1823008	06/05/18	06/05/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		118 %	50-	-150	1823004	06/05/18	06/05/18	EPA 8015D	
Surrogate: n-Nonane		222 %	50-	-200	1823008	06/05/18	06/05/18	EPA 8015D	Surr2
Anions by 300.0/9056A									
Chloride	44.2	20.0	mg/kg	1	1823009	06/05/18	06/05/18	EPA 300.0/9056A	

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5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865



Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: Project Manager: 03143-0424 Steve Moskal Reported:

06-Jun-18 15:58

West Wall 5-pt (5'-13') P806006-03 (Solid)

		Reporting	90, 30, 00						
		reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Toluene	2530	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Ethylbenzene	2080	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
p,m-Xylene	17000	200	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
o-Xylene	4230	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Total Xylenes	21200	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Total BTEX	25800	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		100 %	50-	-150	1823004	06/05/18	06/05/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	273	20.0	mg/kg	1	1823004	06/05/18	06/05/18	EPA 8015D	
Diesel Range Organics (C10-C28)	1330	25.0	mg/kg	1	1823008	06/05/18	06/05/18	EPA 8015D	
Oil Range Organics (C28-C40+)	112	50.0	mg/kg	1	1823008	06/05/18	06/05/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		119 %	50-	-150	1823004	06/05/18	06/05/18	EPA 8015D	
Surrogate: n-Nonane		235 %	50-	-200	1823008	06/05/18	06/06/18	EPA 8015D	Surr2
Anions by 300.0/9056A									
Chloride	44.6	20.0	mg/kg	1	1823009	06/05/18	06/05/18	EPA 300.0/9056A	

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Tulsa OK, 74121-2024

Project Name:

GCU 89E

PO Box 22024

Project Number: Project Manager: 03143-0424 Steve Moskal **Reported:** 06-Jun-18 15:58

South Wall 5-pt (5'-13')

P806006-04 (Solid)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
p,m-Xylene	834	200	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
o-Xylene	200	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Total Xylenes	1030	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Total BTEX	1030	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		101 %	50-	150	1823004	06/05/18	06/05/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	21.4	20.0	mg/kg	1	1823004	06/05/18	06/05/18	EPA 8015D	
Diesel Range Organics (C10-C28)	153	25.0	mg/kg	1	1823008	06/05/18	06/05/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1823008	06/05/18	06/05/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		101 %	50	150	1823004	06/05/18	06/05/18	EPA 8015D	
Surrogate: n-Nonane		132 %	50-2	200	1823008	06/05/18	06/05/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	42.2	20.0	mg/kg	1	1823009	06/05/18	06/05/18	EPA 300.0/9056A	

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Tulsa OK, 74121-2024

Project Name:

GCU 89E

PO Box 22024

Project Number: Project Manager: 03143-0424 Steve Moskal Reported:

06-Jun-18 15:58

North Base 5-pt @ 15' P806006-05 (Solid)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	198	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Toluene	4840	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Ethylbenzene	2450	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
p,m-Xylene	17800	200	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
o-Xylene	4230	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Total Xylenes	22000	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Total BTEX	29500	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		99.4 %	50-	150	1823004	06/05/18	06/05/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	325	20.0	mg/kg	1	1823004	06/05/18	06/05/18	EPA 8015D	
Diesel Range Organics (C10-C28)	1060	25.0	mg/kg	1	1823008	06/05/18	06/05/18	EPA 8015D	
Oil Range Organics (C28-C40+)	149	50.0	mg/kg	1	1823008	06/05/18	06/05/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		118 %	50-	150	1823004	06/05/18	06/05/18	EPA 8015D	
Surrogate: n-Nonane		194 %	50-	200	1823008	06/05/18	06/06/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	50.2	20.0	mg/kg	1	1823009	06/05/18	06/05/18	EPA 300.0/9056A	

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: Project Manager: 03143-0424 Steve Moskal Reported:

06-Jun-18 15:58

South Base 5-pt @ 15' P806006-06 (Solid)

		Reporting	-						
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	173	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Toluene	7060	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Ethylbenzene	3070	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
p,m-Xylene	22900	200	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
o-Xylene	5660	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Total Xylenes	28600	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Total BTEX	38900	100	ug/kg	1	1823004	06/05/18	06/05/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		103 %	50	-150	1823004	06/05/18	06/05/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	371	20.0	mg/kg	1	1823004	06/05/18	06/05/18	EPA 8015D	
Diesel Range Organics (C10-C28)	1750	25.0	mg/kg	1	1823008	06/05/18	06/05/18	EPA 8015D	
Oil Range Organics (C28-C40+)	309	50.0	mg/kg	1	1823008	06/05/18	06/05/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		125 %	50	-150	1823004	06/05/18	06/05/18	EPA 8015D	
Surrogate: n-Nonane		258 %	50	-200	1823008	06/05/18	06/06/18	EPA 8015D	Surr2
Anions by 300.0/9056A									
Chloride	72.7	20.0	mg/kg	1	1823009	06/05/18	06/05/18	EPA 300.0/9056A	

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: Project Manager: 03143-0424

Steve Moskal

Reported: 06-Jun-18 15:58

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1823004 - Purge and Trap EPA 5030A										
Blank (1823004-BLK1)				Prepared &	z Analyzed:	05-Jun-18				
Benzene	ND	100	ug/kg							
Toluene	ND	100	"							
Ethylbenzene	ND	100	"							
p,m-Xylene	ND	200	"							
o-Xylene	ND	100	"							
Total Xylenes	ND	100	"							
Total BTEX	ND	100	"							
Surrogate: 4-Bromochlorobenzene-PID	7820		"	8000		97.7	50-150			
LCS (1823004-BS1)				Prepared &	Analyzed:	05-Jun-18				
Benzene	4860	100	ug/kg	5000		97.3	70-130	<u> </u>		
Toluene	4800	100	"	5000		96.0	70-130			
Ethylbenzene	4810	100	"	5000		96.2	70-130			
p,m-Xylene	9650	200	"	10000		96.5	70-130			
o-Xylene	4710	100	"	5000		94.3	70-130			
Total Xylenes	14400	100	"	15000		95.8	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8040		"	8000		100	50-150			
Matrix Spike (1823004-MS1)	Sou	rce: P806001-	01	Prepared &	Analyzed:	05-Jun-18				
Benzene	4320	100	ug/kg	5000	ND	86.4	54.3-133			
Toluene	4270	100	"	5000	ND	85.5	61.4-130			
Ethylbenzene	4280	100	"	5000	ND	85.6	61.4-133			
p,m-Xylene	8600	200	"	10000	ND	86.1	63.3-131			
o-Xylene	4280	100	"	5000	ND	85.7	63.3-131			
Total Xylenes	12900	100	"	15000	ND	85.9	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	8120		"	8000		102	50-150			
Matrix Spike Dup (1823004-MSD1)	Sou	rce: P806001-	01	Prepared &	Analyzed:	05-Jun-18				
Benzene	4710	100	ug/kg	5000	ND	94.2	54.3-133	8.61	20	
Toluene	4640	100	"	5000	ND	92.8	61.4-130	8.23	20	
Ethylbenzene	4660	100	"	5000	ND	93.3	61.4-133	8.57	20	
p,m-Xylene	9350	200	"	10000	ND	93.5	63.3-131	8.28	20	
o-Xylene	4620	100	"	5000	ND	92.5	63.3-131	7.66	20	
Total Xylenes	14000	100	"	15000	ND	93.2	63.3-131	8.07	20	

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8160

5796 US Highway 64, Farmington, NM 87401

Surrogate: 4-Bromochlorobenzene-PID

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8000

102

50-150



BP America Production Co. PO Box 22024

Tulsa OK, 74121-2024

Project Name:

GCU 89E

Project Number:

03143-0424

Reported:

Project Manager: Steve Moskal

06-Jun-18 15:58

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1823004 - Purge and Trap EPA 503	0A									
Blank (1823004-BLK1)				Prepared &	Analyzed:	05-Jun-18				
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.86		"	8.00		98.3	50-150			
LCS (1823004-BS2)				Prepared &	Analyzed:	05-Jun-18				
Gasoline Range Organics (C6-C10)	47.3	20.0	mg/kg	50.0		94.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.27		"	8.00		103	50-150			
Matrix Spike (1823004-MS2)	Source	e: P806001-	01	Prepared: (05-Jun-18 A	Analyzed: 0	6-Jun-18			
Gasoline Range Organics (C6-C10)	45.9	20.0	mg/kg	50.0	ND	91.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.17		"	8.00		102	50-150			
Matrix Spike Dup (1823004-MSD2)	Source	e: P806001-	01	Prepared: (05-Jun-18 A	Analyzed: 0	6-Jun-18			
Gasoline Range Organics (C6-C10)	47.6	20.0	mg/kg	50.0	ND	95.3	70-130	3.73	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.13		"	8.00		102	50-150			

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BP America Production Co. PO Box 22024

Tulsa OK, 74121-2024

Project Name:

GCU 89E

Project Number: Project Manager: 03143-0424 Steve Moskal Reported:

06-Jun-18 15:58

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1823008 - DRO Extraction EPA 3570										
Blank (1823008-BLK1)	Prepared & Analyzed: 05-Jun-18									
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	59.4		"	50.0		119	50-200			
LCS (1823008-BS1)				Prepared &	Analyzed:	05-Jun-18				
Diesel Range Organics (C10-C28)	484	25.0	mg/kg	500		96.8	38-132			
Surrogate: n-Nonane	58.1		"	50.0		116	50-200			
Matrix Spike (1823008-MS1)	Source: P806005-01		Prepared & Analyzed: 05-Jun-18							
Diesel Range Organics (C10-C28)	463	25.0	mg/kg	500	ND	92.6	38-132			
Surrogate: n-Nonane	56.3		"	50.0		113	50-200			
Matrix Spike Dup (1823008-MSD1)	Source: P806005-01		Prepared & Analyzed: 05-Jun-18							
Diesel Range Organics (C10-C28)	466	25.0	mg/kg	500	ND	93.1	38-132	0.531	20	
Surrogate: n-Nonane	56.9		"	50.0		114	50-200			

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: 03143-0424 Project Manager: Steve Moskal Reported:

06-Jun-18 15:58

Anions by 300.0/9056A - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1823009 - Anion Extraction EPA 300.0/9056A										
Blank (1823009-BLK1)				Prepared &	Analyzed:	05-Jun-18				
Chloride	ND	20.0	mg/kg							
LCS (1823009-BS1)				Prepared &	Analyzed:	05-Jun-18				
Chloride	261	20.0	mg/kg	250		104	90-110			
Matrix Spike (1823009-MS1)	Source: P806006-01		Prepared & Analyzed: 05-Jun-18							
Chloride	320	20.0	mg/kg	250	65.5	102	80-120			
Matrix Spike Dup (1823009-MSD1)	Source: P806006-01		Prepared & Analyzed: 05-Jun-18							
Chloride	320	20.0	mg/kg	250	65.5	102	80-120	0.00937	20	

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BP America Production Co. Project Name: GCU 89E

 PO Box 22024
 Project Number:
 03143-0424
 Reported:

 Tulsa OK, 74121-2024
 Project Manager:
 Steve Moskal
 06-Jun-18 15:58

Notes and Definitions

Surr2 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in

the sample extract.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

** Methods marked with ** are non-accredited methods.

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laboratory@envirotech-inc.com

envirotech-inc.com

Relinquished by: (Signature)

Date

| Date | Time | Received by: (Signature) | Date |

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above



Page



Analytical Report

Report Summary

Client: BP America Production Co.
Chain Of Custody Number:

Samples Received: 6/6/2018 1:57:00PM

Job Number: 03143-0424 Work Order: P806010

Project Name/Location: GCU 89E

Report Reviewed By:	Walter Winder	Date:	6/7/18	
	Walter Hinchman, Laboratory Director			
		Date:	6/7/18	

Tim Cain, Project Manager



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.

Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.

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Envirotech, Inc, currently holds the appropriate and available Utah TNI certification NM009792018-1 for the data reported.

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BP America Production Co. Project Name: GCU 89E

PO Box 22024 Project Number: 03143-0424 Reported:
Tulsa OK, 74121-2024 Project Manager: Steve Moskal 07-Jun-18 15:16

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
South Base Grab @20'	P806010-01A	Soil	06/06/18	06/06/18	Glass Jar, 4 oz.
North Base Grab @20'	P806010-02A	Soil	06/06/18	06/06/18	Glass Jar, 4 oz.

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Page 2 of 10



Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: Project Manager: 03143-0424 Steve Moskal Reported:

07-Jun-18 15:16

South Base Grab @20' P806010-01 (Solid)

			10-01 (50	,,,,					
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1823013	06/06/18	06/06/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1823013	06/06/18	06/06/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1823013	06/06/18	06/06/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1823013	06/06/18	06/06/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1823013	06/06/18	06/06/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1823013	06/06/18	06/06/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1823013	06/06/18	06/06/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		98.4 %	50-	-150	1823013	06/06/18	06/06/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1823013	06/06/18	06/06/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1823012	06/06/18	06/06/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1823012	06/06/18	06/06/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		100 %	50-	-150	1823013	06/06/18	06/06/18	EPA 8015D	
Surrogate: n-Nonane		148 %	50-	-200	1823012	06/06/18	06/06/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1823014	06/06/18	06/07/18	EPA 300.0/9056A	

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5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865



Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: Project Manager: 03143-0424 Steve Moskal Reported:

07-Jun-18 15:16

North Base Grab @20' P806010-02 (Solid)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1823013	06/06/18	06/06/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1823013	06/06/18	06/06/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1823013	06/06/18	06/06/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1823013	06/06/18	06/06/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1823013	06/06/18	06/06/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1823013	06/06/18	06/06/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1823013	06/06/18	06/06/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		97.9 %	50-	150	1823013	06/06/18	06/06/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1823013	06/06/18	06/06/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1823012	06/06/18	06/06/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1823012	06/06/18	06/06/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		102 %	50-	150	1823013	06/06/18	06/06/18	EPA 8015D	
Surrogate: n-Nonane		122 %	50-	200	1823012	06/06/18	06/06/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1823014	06/06/18	06/07/18	EPA 300.0/9056A	

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5796 US Highway 64, Farmington, NM 87401

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: Project Manager: 03143-0424 Steve Moskal **Reported:** 07-Jun-18 15:16

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1823013 - Purge and Trap EPA 5030A										
Blank (1823013-BLK1)				Prepared: ()6-Jun-18 <i>A</i>	Analyzed: (7-Jun-18			
Benzene	ND	100	ug/kg							
Toluene	ND	100	"							
Ethylbenzene	ND	100	"							
p,m-Xylene	ND	200	"							
o-Xylene	ND	100	"							
Total Xylenes	ND	100	"							
Total BTEX	ND	100	"							
Surrogate: 4-Bromochlorobenzene-PID	8090		"	8000		101	50-150			
LCS (1823013-BS1)				Prepared &	Analyzed:	06-Jun-18				
Benzene	4990	100	ug/kg	5000		99.9	70-130			
Toluene	4940	100	"	5000		98.8	70-130			
Ethylbenzene	4980	100	"	5000		99.6	70-130			
p,m-Xylene	9990	200	"	10000		99.9	70-130			
o-Xylene	4870	100	"	5000		97.5	70-130			
Total Xylenes	14900	100	"	15000		99.1	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7850		"	8000		98.1	50-150			
Matrix Spike (1823013-MS1)	Sou	ırce: P806010-	01	Prepared &	Analyzed:	06-Jun-18				
Benzene	4240	100	ug/kg	5000	ND	84.9	54.3-133			
Toluene	4200	100	"	5000	ND	84.0	61.4-130			
Ethylbenzene	4220	100	"	5000	ND	84.4	61.4-133			
p,m-Xylene	8470	200	"	10000	ND	84.8	63.3-131			
o-Xylene	4170	100	"	5000	ND	83.5	63.3-131			
Total Xylenes	12600	100	"	15000	ND	84.3	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	7890		"	8000		98.6	50-150			
Matrix Spike Dup (1823013-MSD1)	Sou	ırce: P806010-	01	Prepared &	Analyzed:	06-Jun-18				
Benzene	4370	100	ug/kg	5000	ND	87.4	54.3-133	2.91	20	
Toluene	4310	100	"	5000	ND	86.3	61.4-130	2.71	20	
Ethylbenzene	4340	100	"	5000	ND	86.9	61.4-133	2.94	20	
p,m-Xylene	8720	200	"	10000	ND	87.2	63.3-131	2.87	20	
o-Xylene	4290	100	"	5000	ND	85.8	63.3-131	2.75	20	
Total Xylenes	13000	100	"	15000	ND	86.8	63.3-131	2.83	20	
Surrogate: 4-Bromochlorobenzene-PID	7920		"	8000		99.0	50-150			

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Ph (970) 259-0615 Fr (800) 362-1879



Project Name:

GCU 89E

PO Box 22024 Project Number:
Tulsa OK, 74121-2024 Project Manager:

03143-0424 Steve Moskal Reported:

07-Jun-18 15:16

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1823012 - DRO Extraction EPA 3570										
Blank (1823012-BLK1)				Prepared &	Analyzed:	06-Jun-18				
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	54.4		"	50.0		109	50-200			
LCS (1823012-BS1)				Prepared &	Analyzed:	06-Jun-18				
Diesel Range Organics (C10-C28)	443	25.0	mg/kg				38-132			
Surrogate: n-Nonane	55.9		"	50.0		112	50-200			
Matrix Spike (1823012-MS1)	Sou	rce: P806010-	01	Prepared &	Analyzed:	06-Jun-18				
Diesel Range Organics (C10-C28)	485	25.0	mg/kg		ND		38-132			
Surrogate: n-Nonane	62.3		"	50.0		125	50-200			
Matrix Spike Dup (1823012-MSD1)	Sou	rce: P806010-	01	Prepared &	Analyzed:	06-Jun-18				
Diesel Range Organics (C10-C28)	469	25.0	mg/kg		ND		38-132	3.38	20	
Surrogate: n-Nonane	59.5		"	50.0		119	50-200			

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: Project Manager: 03143-0424 Steve Moskal **Reported:** 07-Jun-18 15:16

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1823013 - Purge and Trap EPA 5030A										
Blank (1823013-BLK1)				Prepared: ()6-Jun-18 <i>A</i>	Analyzed: 0	7-Jun-18			
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.21		"	8.00		103	50-150			
LCS (1823013-BS2)				Prepared &	Analyzed:	06-Jun-18				
Gasoline Range Organics (C6-C10)	49.8	20.0	mg/kg	50.0		99.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.20		"	8.00		103	50-150			
Matrix Spike (1823013-MS2)	Sou	rce: P806010-	01	Prepared &	Analyzed:	06-Jun-18				
Gasoline Range Organics (C6-C10)	47.0	20.0	mg/kg	50.0	ND	94.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.22		"	8.00		103	50-150			
Matrix Spike Dup (1823013-MSD2)	Sou	rce: P806010-	01	Prepared &	Analyzed:	06-Jun-18				
Gasoline Range Organics (C6-C10)	50.5	20.0	mg/kg	50.0	ND	101	70-130	7.26	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.09		"	8.00		101	50-150			

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: Project Manager: 03143-0424 Steve Moskal **Reported:** 07-Jun-18 15:16

Anions by 300.0/9056A - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1823014 - Anion Extraction EPA	A 300.0/9056A									

B Blank (1823014-BLK1) Prepared & Analyzed: 06-Jun-18 mg/kg Chloride ND 20.0 LCS (1823014-BS1) Prepared & Analyzed: 06-Jun-18 256 20.0 90-110 Chloride mg/kg Matrix Spike (1823014-MS1) Source: P806005-01 Prepared & Analyzed: 06-Jun-18 Chloride 46.5 80-120 20.0 mg/kg Matrix Spike Dup (1823014-MSD1) Source: P806005-01 Prepared & Analyzed: 06-Jun-18 Chloride 311 250 80-120 0.365 20.0 mg/kg 46.5

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Tulsa OK, 74121-2024

Project Name:

GCU 89E

PO Box 22024

Project Number: Project Manager: 03143-0424

Steve Moskal

Reported: 07-Jun-18 15:16

Notes and Definitions

DET

Analyte DETECTED

ND

Analyte NOT DETECTED at or above the reporting limit

NR

Not Reported

RPD

Relative Percent Difference

**

Methods marked with ** are non-accredited methods.

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Page 9 of 10

Project	Informatio	n
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Chain of Custody

Client:	RP AM	anica				Report Attention			1	la	hlis	e On	lv			T/	T T	F	PA Progra	am
Project:			= 311.15		_	Report due by: 6/7/2018		Lah	WO		_			ber		1D		RCRA	CWA	SDWA
Project N				<al< td=""><td></td><td>Attention: Strue Moskal</td><td>3.00 h</td><td>P8</td><td>06</td><td>DIC</td><td></td><td></td><td></td><td>5-04</td><td></td><td></td><td></td><td></td><td></td><td>55 11.1</td></al<>		Attention: Strue Moskal	3.00 h	P8	06	DIC				5-04						55 11.1
Address:			·			Address:				III A BE				nd Me			Parlies III	atter teller	Sta	ate
City, Stat						City, State, Zip		7.7.	ις.			Í					T		NM CO	UT AZ
Phone:	505-	320-1	183			Phone:		8	8				o.		W			88		
Email: 🗷	feblogge	AOL Cous?	Steve.	WskileBd	· Coy	Email:	(STER 10)	o b	À	802	3260	010	300	+i	MAID	9			X	
Time Sampled	Date Sampled	Matrix	No Containers	Sample I			Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TPH 418.1	CHLORIDE				Ren	narks
1248	6/6/2018	Soil	1	Sout	n Bas	E Grab @ 20' GRAB @ 20']	X	X	X					X				30.00	
1258	3/	SOIL	1	North	BASE	GRAB @ 20'	2	X	Х	Х					X					
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Addition	al Instru			· VID		ONEURM WBS Element	= 41-6	0010	CT-	E: 6	CU	89E		ř.	§ ×					
		he validity an	d authenticit	y of this sample unds for legal	e. I am aware	that tampering with or intentionally mislabelling the sed by:	ample location,	date o	r										e the day they a C on subsequent	
Relinguishe	ed by: (Sign	nature)	Date	6/18	Time 1356	Received by: (Signature)	Date 6-6-1	8	Time	:57		Rece	eived	d on i	ice:		b Use	e Only		
Relinquishe	ed by: (Sign	nature)	Date		Time	Received by: (Signature)	Date		Time	1		T1		np °C		T2			<u>T3</u>	
	ple Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Ot				-26			ner Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA												
Note: Sampl	es are disca	rded 30 day	s after resu	ilts are repor		ther arrangements are made. Hazardous sam with this COC. The liability of the laboraotry is								client	expen	se. Th	e repo	ort for the	analysis of th	e above

Page 10 of



Analytical Report

Report Summary

Client: BP America Production Co.
Chain Of Custody Number:

Samples Received: 6/7/2018 12:50:00PM

Job Number: 03143-0424 Work Order: P806014

Project Name/Location: GCU 89E

Report Reviewed By:	Walter Hankson	Date:	6/8/18	
	Walter Hinchman, Laboratory Director			
		Date:	6/8/18	
	Tim Cain, Project Manager	_		·



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.

Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.

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Envirotech, Inc, currently holds the appropriate and available Utah TNI certification NM009792018-1 for the data reported.

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: Project Manager: 03143-0424 Steve Moskal **Reported:** 08-Jun-18 11:33

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Base 5-pt @ 20'	P806014-01A	Soil	06/07/18	06/07/18	Glass Jar, 4 oz.

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Project Name:

GCU 89E

PO Box 22024

Tulsa OK, 74121-2024

Project Number: Project Manager: 03143-0424 Steve Moskal Reported:

08-Jun-18 11:33

Base 5-pt @ 20' P806014-01 (Solid)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1823013	06/07/18	06/07/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1823013	06/07/18	06/07/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1823013	06/07/18	06/07/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1823013	06/07/18	06/07/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1823013	06/07/18	06/07/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1823013	06/07/18	06/07/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1823013	06/07/18	06/07/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		98.3 %	50-1	50	1823013	06/07/18	06/07/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1823013	06/07/18	06/07/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1823012	06/07/18	06/07/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1823012	06/07/18	06/07/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		99.2 %	50-1	50	1823013	06/07/18	06/07/18	EPA 8015D	
Surrogate: n-Nonane		125 %	50-2	200	1823012	06/07/18	06/07/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1823019	06/07/18	06/08/18	EPA 300.0/9056A	

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: Project Manager: 03143-0424 Steve Moskal Reported:

08-Jun-18 11:33

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Result	
Benzene ND 100 wg/kg Februsher ND 100 wg/kg	Notes
Semene	
Toluene	
ND	
ND 200 " ND 100 " ND ND ND ND ND ND ND	
ND	
Total BTEX ND 100 " Survey Revenue - PID 8090 101 50-150 Survey Revenue - PID 8090 100 " Survey Revenue - PID 8090 100	
ND 100	
Name	
LCS (1823013-BS1)	
Benzene	
Toluene 4940 100 " 5000 98.8 70-130 Ethylbenzene 4980 100 " 5000 99.6 70-130 p.m-Xylene 9990 200 " 10000 99.9 70-130 o-Xylene 4870 100 " 5000 99.1 70-130 o-Xylene 14900 100 " 5000 99.1 70-130 o-Xylene 14900 100 " 15000 99.1 70-130 o-Xylene 14900 100 " 15000 99.1 70-130 o-Xylene 14900 100 " 8000 ND 84.9 54.3-133 o-Xylene 14900 100 " 5000 ND 84.9 64.3-133 o-Xylene 14900 100 " 5000 ND 84.0 61.4-130 o-Xylene 14900 100 " 5000 ND 84.0 61.4-130 o-Xylene 14900 100 " 5000 ND 84.8 63.3-131 o-Xylene 14900 100 " 5000 ND 84.8 63.3-131 o-Xylene 14900 100 " 5000 ND 84.8 63.3-131 o-Xylene 14900 100 " 5000 ND 84.3 63.3-131 o-Xylene 14900 100 " 5000 ND 84.4 64.3-133 0-291 0-Xylene 14900 100 " 5000 ND 86.0 61.4-130 0-Xylene 14900 ND 86.0 61.4-130 0-Xylene 14900 ND 86.0 61.4-130 0-Xylene 14900	
Ethylbenzene 4980 100 " 5000 99.6 70-130 p.m-Xylene 9990 200 " 10000 99.9 70-130 o-Xylene 4870 100 " 5000 99.1 70-130 o-Xylene 14900 100 " 15000 99.1 70-130 o-Xylene 14900 100 " 8000 99.1 50-150 o-Xylene 14900 100 " 5000 ND 84.9 54.3-133	
Prepared & Analyzed: 06-Jun-18	
No	
Total Xylenes 14900 100 " 15000 99.1 70-130 Surrogate: 4-Bromochlorobenzene-PID 7850 " 8000 98.1 50-150 Matrix Spike (1823013-MS1) Source: P806010-01 Prepared & Analyzed: 06-Jun-18 Benzene 4240 100 ug/kg 5000 ND 84.9 54.3-133 Totuene 4200 100 " 5000 ND 84.0 61.4-130 Ethylbenzene 4220 100 " 5000 ND 84.4 61.4-133 p,m-Xylene 8470 200 " 10000 ND 84.8 63.3-131 Total Xylenes 12600 100 " 5000 ND 84.3 63.3-131 Surrogate: 4-Bromochlorobenzene-PID 7890 " 8000 98.6 50-150 Matrix Spike Dup (1823013-MSD1) Source: P806010-01 Prepared & Analyzed: 06-Jun-18 98.6 50-150 Benzene 4370 100 ug/kg 5000 ND	
Natrix Spike (1823013-MS1) Source: P806010-01 Prepared & Analyzed: 06-Jun-18	
Matrix Spike (1823013-MS1) Source: P806010-01 Prepared & Analyzed: 06-Jun-18 Benzene 4240 100 ug/kg 5000 ND 84.9 54.3-133 Toluene 4200 100 " 5000 ND 84.0 61.4-130 Ethylbenzene 4220 100 " 5000 ND 84.4 61.4-133 p,m-Xylene 8470 200 " 10000 ND 84.8 63.3-131 o-Xylene 4170 100 " 5000 ND 84.3 63.3-131 Total Xylenes 12600 100 " 15000 ND 84.3 63.3-131 Surrogate: 4-Bromochlorobenzene-PID 7890 " 8000 98.6 50-150 Matrix Spike Dup (1823013-MSD1) Source: P806010-01 Prepared & Analyzed: 06-Jun-18 8 Benzene 4370 100 ug/kg 5000 ND 87.4 54.3-133 2.91 20 Toluene 4310 100 " <	
Benzene 4240 100 ug/kg 5000 ND 84.9 54.3-133 Toluene 4200 100 " 5000 ND 84.0 61.4-130 Ethylbenzene 4220 100 " 5000 ND 84.4 61.4-133 p,m-Xylene 8470 200 " 10000 ND 84.8 63.3-131 o-Xylene 4170 100 " 5000 ND 83.5 63.3-131 Total Xylenes 12600 100 " 15000 ND 84.3 63.3-131 Surrogate: 4-Bromochlorobenzene-PID 7890 " 8000 98.6 50-150 Source: P806010-01 Prepared & Analyzed: 06-Jun-18 Benzene 4370 100 ug/kg 5000 ND 87.4 54.3-133 2.91 20 Toluene 4310 100 " 5000 ND 86.3 61.4-130 2.71 20 Ethylbenzene 4340 100 " 5000 ND 86.9 61.4-133 2.94 20 p,m-Xylene 8720 200 " 10000 ND 87.2 63.3-131 2.87 20	
Toluene 4200 100 " 5000 ND 84.0 61.4-130 Ethylbenzene 4220 100 " 5000 ND 84.4 61.4-133 p.m-Xylene 8470 200 " 10000 ND 84.8 63.3-131 o-Xylene 12600 100 " 5000 ND 84.3 63.3-131 Surrogate: 4-Bromochlorobenzene-PID 7890 " 8000 ND 84.3 63.3-131 Surrogate: 4-Bromochlorobenzene-PID Prepared & Analyzed: 06-Jun-18 Benzene 4370 100 ug/kg 5000 ND 87.4 54.3-133 2.91 20 Toluene 4310 100 " 5000 ND 86.3 61.4-130 2.71 20 Ethylbenzene 4340 100 " 5000 ND 86.9 61.4-133 2.94 20 p.m-Xylene 8720 200 " 10000 ND 87.2 63.3-131 2.87 20	
Ethylbenzene 4220 100 " 5000 ND 84.4 61.4-133 p.m-Xylene 8470 200 " 10000 ND 84.8 63.3-131 o-Xylene 4170 100 " 5000 ND 84.3 63.3-131 Total Xylenes 12600 100 " 15000 ND 84.3 63.3-131 Surrogate: 4-Bromochlorobenzene-PID 7890 " 8000 98.6 50-150 Matrix Spike Dup (1823013-MSD1) Source: P806010-01 Prepared & Analyzed: 06-Jun-18 Benzene 4370 100 ug/kg 5000 ND 87.4 54.3-133 2.91 20 Toluene 4310 100 " 5000 ND 86.3 61.4-130 2.71 20 Ethylbenzene 4340 100 " 5000 ND 86.9 61.4-133 2.94 20 p.m-Xylene 8720 200 " 10000 ND 87.2 63.3-131 2.87 20	
p,m-Xylene 8470 200 " 10000 ND 84.8 63.3-131 o-Xylene 4170 100 " 5000 ND 83.5 63.3-131 Total Xylenes 12600 100 " 15000 ND 84.3 63.3-131 Surrogate: 4-Bromochlorobenzene-PID 7890 " 8000 98.6 50-150 Matrix Spike Dup (1823013-MSD1) Source: P806010-01 Prepared & Analyzed: 06-Jun-18 Benzene 4370 100 ug/kg 5000 ND 87.4 54.3-133 2.91 20 Toluene 4310 100 " 5000 ND 86.3 61.4-130 2.71 20 Ethylbenzene 4340 100 " 5000 ND 86.9 61.4-133 2.94 20 p,m-Xylene 8720 200 " 10000 ND 87.2 63.3-131 2.87 20	
o-Xylene 4170 100 " 5000 ND 83.5 63.3-131 Total Xylenes 12600 100 " 15000 ND 84.3 63.3-131 Surrogate: 4-Bromochlorobenzene-PID 7890 " 8000 98.6 50-150 Matrix Spike Dup (1823013-MSD1) Source: P806010-01 Prepared & Analyzed: 06-Jun-18 Benzene 4370 100 ug/kg 5000 ND 87.4 54.3-133 2.91 20 Toluene 4310 100 " 5000 ND 86.3 61.4-130 2.71 20 Ethylbenzene 4340 100 " 5000 ND 86.9 61.4-133 2.94 20 p,m-Xylene 8720 200 " 10000 ND 87.2 63.3-131 2.87 20	
Total Xylenes 12600 100 " 15000 ND 84.3 63.3-131 Surrogate: 4-Bromochlorobenzene-PID 7890 " 8000 98.6 50-150 Matrix Spike Dup (1823013-MSD1) Source: P806010-01 Prepared & Analyzed: 06-Jun-18 Benzene 4370 100 ug/kg 5000 ND 87.4 54.3-133 2.91 20 Toluene 4310 100 " 5000 ND 86.3 61.4-130 2.71 20 Ethylbenzene 4340 100 " 5000 ND 86.9 61.4-133 2.94 20 p,m-Xylene 8720 200 " 10000 ND 87.2 63.3-131 2.87 20	
Nutrix Spike Dup (1823013-MSD1) Source: P806010-01 Prepared & Analyzed: 06-Jun-18	
Matrix Spike Dup (1823013-MSD1) Source: P806010-01 Prepared & Analyzed: 06-Jun-18 Benzene 4370 100 ug/kg 5000 ND 87.4 54.3-133 2.91 20 Toluene 4310 100 " 5000 ND 86.3 61.4-130 2.71 20 Ethylbenzene 4340 100 " 5000 ND 86.9 61.4-133 2.94 20 p,m-Xylene 8720 200 " 10000 ND 87.2 63.3-131 2.87 20	
Benzene 4370 100 ug/kg 5000 ND 87.4 54.3-133 2.91 20 Toluene 4310 100 " 5000 ND 86.3 61.4-130 2.71 20 Ethylbenzene 4340 100 " 5000 ND 86.9 61.4-133 2.94 20 p,m-Xylene 8720 200 " 10000 ND 87.2 63.3-131 2.87 20	
Toluene 4310 100 " 5000 ND 86.3 61.4-130 2.71 20 Ethylbenzene 4340 100 " 5000 ND 86.9 61.4-133 2.94 20 p,m-Xylene 8720 200 " 10000 ND 87.2 63.3-131 2.87 20	
Ethylbenzene 4340 100 " 5000 ND 86.9 61.4-133 2.94 20 p,m-Xylene 8720 200 " 10000 ND 87.2 63.3-131 2.87 20	
p,m-Xylene 8720 200 " 10000 ND 87.2 63.3-131 2.87 20	
o Vylono 100 " 5000 ND 95.9 62.2.121 2.75 20	
0-Aylelie 4270 100 3000 ND 85.8 05.3-151 2.75 20	
Total Xylenes 13000 100 " 15000 ND 86.8 63.3-131 2.83 20	
Surrogate: 4-Bromochlorobenzene-PID 7920 " 8000 99.0 50-150	

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: Project Manager: 03143-0424 Steve Moskal Reported:

08-Jun-18 11:33

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1823012 - DRO Extraction EPA 3570										
Blank (1823012-BLK1)				Prepared &	t Analyzed:	06-Jun-18				
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	54.4		"	50.0		109	50-200			
LCS (1823012-BS1)				Prepared &	t Analyzed:	06-Jun-18				
Diesel Range Organics (C10-C28)	443	25.0	mg/kg				38-132	_		
Surrogate: n-Nonane	55.9		"	50.0		112	50-200			
Matrix Spike (1823012-MS1)	Sou	rce: P806010-	01	Prepared &	t Analyzed:	06-Jun-18				
Diesel Range Organics (C10-C28)	485	25.0	mg/kg		ND		38-132			<u></u>
Surrogate: n-Nonane	62.3		"	50.0		125	50-200			
Matrix Spike Dup (1823012-MSD1)	Sour	rce: P806010-	01	Prepared &	ኔ Analyzed:	06-Jun-18				
Diesel Range Organics (C10-C28)	469	25.0	mg/kg		ND		38-132	3.38	20	
Surrogate: n-Nonane	59.5		"	50.0		119	50-200			

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BP America Production Co. PO Box 22024

Tulsa OK, 74121-2024

Project Name:

GCU 89E

Project Number: Project Manager: 03143-0424 Steve Moskal Reported:

08-Jun-18 11:33

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1823013 - Purge and Trap EPA 5030A										
Blank (1823013-BLK1)				Prepared: (06-Jun-18 <i>A</i>	Analyzed: 0	7-Jun-18			
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.21		"	8.00		103	50-150			
LCS (1823013-BS2)				Prepared &	Analyzed:	06-Jun-18				
Gasoline Range Organics (C6-C10)	49.8	20.0	mg/kg	50.0		99.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.20		"	8.00		103	50-150			
Matrix Spike (1823013-MS2)	Sour	rce: P806010-	01	Prepared &	Analyzed:	06-Jun-18				
Gasoline Range Organics (C6-C10)	47.0	20.0	mg/kg	50.0	ND	94.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.22		"	8.00		103	50-150			
Matrix Spike Dup (1823013-MSD2)	Sour	rce: P806010-	01	Prepared &	Analyzed:	06-Jun-18				
Gasoline Range Organics (C6-C10)	50.5	20.0	mg/kg	50.0	ND	101	70-130	7.26	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.09		"	8.00		101	50-150			

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: Project Manager: 03143-0424 Steve Moskal Reported:

08-Jun-18 11:33

Anions by 300.0/9056A - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1823019 - Anion Extraction EPA 300.0/90)56A									
Blank (1823019-BLK1)				Prepared &	Analyzed:	07-Jun-18				
Chloride	ND	20.0	mg/kg							
LCS (1823019-BS1)				Prepared: 0	7-Jun-18 <i>A</i>	Analyzed: 0	8-Jun-18			
Chloride	255	20.0	mg/kg	250		102	90-110			
Matrix Spike (1823019-MS1)	Sourc	e: P806014-	01	Prepared: 0	7-Jun-18 <i>A</i>	Analyzed: 0	8-Jun-18			
Chloride	269	20.0	mg/kg	250	ND	108	80-120			
Matrix Spike Dup (1823019-MSD1)	Sourc	e: P806014-	01	Prepared: 0	7-Jun-18 <i>A</i>	Analyzed: 0	8-Jun-18			
Chloride	268	20.0	mg/kg	250	ND	107	80-120	0.238	20	

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Tulsa OK, 74121-2024

Project Name:

GCU 89E

PO Box 22024

Project Number: Project Manager: 03143-0424 Steve Moskal Reported:

08-Jun-18 11:33

Notes and Definitions

DET

Analyte DETECTED

ND

Analyte NOT DETECTED at or above the reporting limit

NR

Not Reported

RPD

Relative Percent Difference

**

Methods marked with ** are non-accredited methods.

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Page 8 of 9

ACCOUNT OF THE PROPERTY OF THE					Chain of	Custody											Р	age	of _		
Project: 6CU 89E Report due by: 6/8/					Report Attention				La	b Us	se Or	ily			TA	AT	EF	A Progr	am		
						Re	port due by: 6/8/2018		Lab	WO	#		Job	Nun	nber		1D	3D	RCRA	CWA	SDW
Project	Manager	: Steve	Moska	1			ention: Steve Moskal		PG	860	914		131	43.	-04	24	X				
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City, Sta	te, Zip					Cit	y, State, Zip		S	S										NM CO	UTA
Phone:5	505-320	1-1183				Pho	one: 505 - 330 - 9179	7	801	8015	_			0.						1/	
Email: je	Feblor C	AOL.COM Y	: Steve.Must	ale BP. C	ou	Em	The state of the s		o by	O by	802	3260	010	300.0	н.					X	
Time Sampled	Date	Matrix	No Containers	Cample	 	1.		Lab Number	DRO/ORO by 8015	GRO/DRO by	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 3	TPH 418.					Rer	marks
1110	6/2/2018	SOIL	1	BASE	5-pt	- 0	20'		X	X	X			X							
70002 050000					Bill Marketon	5 Y 1020	· ·														
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I, (field samp time of colle	ler), attest to tection is consid	the validity ar lered fraud ar	nd authenticit nd may be gro	y of this samp ounds for legal	le. I am awa action. Sam	re that t pled by:	ampering with or intentionally mislabelling	the sample location	, date o	or			- 40							e the day they C on subsequer	are sampled or nt days.
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Control of the Contro	trix: S - Soil,							Containe													
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samp											client	expen	se. Th	ne repo	ort for the a	nalysis of t	ne above				
boratory with this COC. The liability of the laboraot					trv is limited to th	e amoi	unt pa	id for a	on the	repor											

envirotech Analytical Laboratory



Analytical Report

Report Summary

Client: BP America Production Co.
Chain Of Custody Number:

Samples Received: 6/11/2018 2:36:00PM

Job Number: 03143-0424 Work Order: P806027

Project Name/Location: GCU 89E

Report Reviewed By:	Walter Hankenum	Date:	6/12/18	
	Walter Hinchman, Laboratory Director			
		Date:	6/12/18	

Tim Cain, Project Manager



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.

Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.

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Envirotech, Inc, currently holds the appropriate and available Utah TNI certification NM009792018-1 for the data reported.

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BP America Production Co.
Project Name: GCU 89E

PO Box 22024 Project Number: 03143-0424 Reported:
Tulsa OK, 74121-2024 Project Manager: Steve Moskal 12-Jun-18 14:24

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
North Base 5-pt. @20'	P806027-01A	Soil	06/11/18	06/11/18	Glass Jar, 4 oz.
Extended North Wall 5-pt (5'-18')	P806027-02A	Soil	06/11/18	06/11/18	Glass Jar, 4 oz.
TSP-7R	P806027-03A	Soil	06/11/18	06/11/18	Glass Jar, 4 oz.
TSP-8R	P806027-04A	Soil	06/11/18	06/11/18	Glass Jar, 4 oz.

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number:

03143-0424

Reported: 12-Jun-18 14:24

Project Manager: Steve Moskal

North Base 5-pt. @20' P806027-01 (Solid)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1824008	06/11/18	06/11/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1824008	06/11/18	06/11/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1824008	06/11/18	06/11/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1824008	06/11/18	06/11/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1824008	06/11/18	06/11/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1824008	06/11/18	06/11/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1824008	06/11/18	06/11/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		101 %	50-1	50	1824008	06/11/18	06/11/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1824008	06/11/18	06/11/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1824006	06/11/18	06/11/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1824006	06/11/18	06/11/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		102 %	50-1	50	1824008	06/11/18	06/11/18	EPA 8015D	
Surrogate: n-Nonane		117 %	50-2	00	1824006	06/11/18	06/11/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	24.3	20.0	mg/kg	1	1824007	06/11/18	06/11/18	EPA 300.0/9056A	

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Tulsa OK, 74121-2024

Project Name:

GCU 89E

PO Box 22024

Project Number: Project Manager: 03143-0424 Steve Moskal **Reported:** 12-Jun-18 14:24

Extended North Wall 5-pt (5'-18') P806027-02 (Solid)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1824008	06/11/18	06/11/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1824008	06/11/18	06/11/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1824008	06/11/18	06/11/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1824008	06/11/18	06/11/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1824008	06/11/18	06/11/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1824008	06/11/18	06/11/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1824008	06/11/18	06/11/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		102 %	50-1.	50	1824008	06/11/18	06/11/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1824008	06/11/18	06/11/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1824006	06/11/18	06/11/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1824006	06/11/18	06/11/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		104 %	50-1.	50	1824008	06/11/18	06/11/18	EPA 8015D	
Surrogate: n-Nonane		114 %	50-2	00	1824006	06/11/18	06/11/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	41.2	20.0	mg/kg	1	1824007	06/11/18	06/12/18	EPA 300.0/9056A	

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Tulsa OK, 74121-2024

Project Name:

Project Manager:

GCU 89E

PO Box 22024

Project Number:

03143-0424 Steve Moskal Reported:

12-Jun-18 14:24

TSP-7R P806027-03 (Solid)

		1 0000	27-03 (30	muj					
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1824008	06/11/18	06/11/18	EPA 8015D	
Diesel Range Organics (C10-C28)	396	25.0	mg/kg	1	1824006	06/11/18	06/11/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1824006	06/11/18	06/11/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		106 %	50-	-150	1824008	06/11/18	06/11/18	EPA 8015D	
Surrogate: n-Nonane		118 %	50-	-200	1824006	06/11/18	06/11/18	EPA 8015D	

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Project Name:

GCU 89E

PO Box 22024

Project Number:

03143-0424

Reported:

Tulsa OK, 74121-2024

Project Manager:

Steve Moskal

12-Jun-18 14:24

TSP-8R P806027-04 (Solid)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	27.1	20.0	mg/kg	1	1824008	06/11/18	06/11/18	EPA 8015D	
Diesel Range Organics (C10-C28)	393	25.0	mg/kg	1	1824006	06/11/18	06/11/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1824006	06/11/18	06/11/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		109 %	50	-150	1824008	06/11/18	06/11/18	EPA 8015D	
Surrogate: n-Nonane		136 %	50	-200	1824006	06/11/18	06/11/18	EPA 8015D	

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: 03143-0424 Project Manager: Steve Moskal Reported:

12-Jun-18 14:24

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1824008 - Purge and Trap EPA 503	30A									
Blank (1824008-BLK1)				Prepared &	z Analyzed:	11-Jun-18				
Benzene	ND	100	ug/kg							
Toluene	ND	100	"							
Ethylbenzene	ND	100	"							
p,m-Xylene	ND	200	"							
o-Xylene	ND	100	"							
Total Xylenes	ND	100	"							
Total BTEX	ND	100	"							
Surrogate: 4-Bromochlorobenzene-PID	7470		"	8000		93.4	50-150			
LCS (1824008-BS1)				Prepared &	Analyzed:	11-Jun-18				
Benzene	4840	100	ug/kg	5000		96.9	70-130			
Toluene	4810	100	"	5000		96.3	70-130			
Ethylbenzene	4840	100	"	5000		96.9	70-130			
p,m-Xylene	9730	200	"	10000		97.4	70-130			
o-Xylene	4780	100	"	5000		95.6	70-130			
Total Xylenes	14500	100	"	15000		96.8	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7960		"	8000		99.6	50-150			
Matrix Spike (1824008-MS1)	Sour	rce: P806027-	01	Prepared &	Analyzed:	11-Jun-18				
Benzene	3870	100	ug/kg	5000	ND	77.3	54.3-133			
Toluene	3830	100	"	5000	ND	76.5	61.4-130			
Ethylbenzene	3820	100	"	5000	ND	76.5	61.4-133			
p,m-Xylene	7700	200	"	10000	ND	77.1	63.3-131			
o-Xylene	3860	100	"	5000	ND	77.2	63.3-131			
Total Xylenes	11600	100	"	15000	ND	77.1	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	8150		"	8000		102	50-150			
Matrix Spike Dup (1824008-MSD1)	Sour	rce: P806027-	01	Prepared &	Analyzed:	11-Jun-18				
Benzene	4300	100	ug/kg	5000	ND	86.1	54.3-133	10.7	20	
Toluene	4270	100	"	5000	ND	85.5	61.4-130	11.0	20	
Ethylbenzene	4300	100	"	5000	ND	86.0	61.4-133	11.6	20	
p,m-Xylene	8640	200	"	10000	ND	86.5	63.3-131	11.5	20	
o-Xylene	4300	100	"	5000	ND	86.1	63.3-131	10.9	20	
Total Xylenes	12900	100	"	15000	ND	86.3	63.3-131	11.3	20	
Surrogate: 4-Bromochlorobenzene-PID	8170		"	8000		102	50-150			

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: Project Manager: 03143-0424 Steve Moskal **Reported:** 12-Jun-18 14:24

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1824006 - DRO Extraction EPA 3570										
Blank (1824006-BLK1)				Prepared &	k Analyzed:	11-Jun-18				
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	64.7		"	50.0		129	50-200			
LCS (1824006-BS1)				Prepared &	k Analyzed:	11-Jun-18				
Diesel Range Organics (C10-C28)	475	25.0	mg/kg	500		94.9	38-132			
Surrogate: n-Nonane	61.4		"	50.0		123	50-200			
Matrix Spike (1824006-MS1)	Sour	rce: P806027-	01	Prepared &	k Analyzed:	11-Jun-18				
Diesel Range Organics (C10-C28)	456	25.0	mg/kg	500	ND	91.2	38-132			·
Surrogate: n-Nonane	58.8		"	50.0		118	50-200			
Matrix Spike Dup (1824006-MSD1)	Sour	rce: P806027-	01	Prepared &	t Analyzed:	11-Jun-18				
Diesel Range Organics (C10-C28)	457	25.0	mg/kg	500	ND	91.4	38-132	0.215	20	
Surrogate: n-Nonane	57.5		"	50.0		115	50-200			

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Tulsa OK, 74121-2024

Project Name:

Project Manager:

GCU 89E

PO Box 22024 Project Number:

03143-0424 Steve Moskal Reported:

12-Jun-18 14:24

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1824008 - Purge and Trap EPA 5030A					,		,			
Blank (1824008-BLK1)				Prepared &	Analyzed:	11-Jun-18				
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.73		"	8.00		109	50-150			
LCS (1824008-BS2)				Prepared &	Analyzed:	11-Jun-18				
Gasoline Range Organics (C6-C10)	42.5	20.0	mg/kg	50.0		85.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.16		"	8.00		102	50-150			
Matrix Spike (1824008-MS2)	Sour	ce: P806027-	01	Prepared &	Analyzed:	11-Jun-18				
Gasoline Range Organics (C6-C10)	55.7	20.0	mg/kg	50.0	ND	111	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.36		"	8.00		105	50-150			
Matrix Spike Dup (1824008-MSD2)	Sour	ce: P806027-	01	Prepared &	Analyzed:	11-Jun-18				
Gasoline Range Organics (C6-C10)	52.9	20.0	mg/kg	50.0	ND	106	70-130	5.03	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.39		"	8.00		105	50-150			

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number:
Project Manager:

03143-0424 Steve Moskal **Reported:** 12-Jun-18 14:24

Anions by 300.0/9056A - Quality Control

Envirotech Analytical Laboratory

%REC RPD Reporting Spike Source Analyte Result Limit Units Level Result %REC Limits RPD Limit Notes

Batch 1824007 - Anion Extraction EPA 300.0/9056A

Blank (1824007-BLK1) Prepared & Analyzed: 11-Jun-18 Chloride ND 20.0 mg/kg LCS (1824007-BS1) Prepared & Analyzed: 11-Jun-18 256 20.0 Chloride mg/kg Matrix Spike (1824007-MS1) Source: P806027-01 Prepared: 11-Jun-18 Analyzed: 12-Jun-18 Chloride 284 24.3 80-120 20.0 mg/kg Matrix Spike Dup (1824007-MSD1) Source: P806027-01 Prepared: 11-Jun-18 Analyzed: 12-Jun-18 Chloride 20.0 24.3 103 80-120 0.672 mg/kg 250

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Project Name:

GCU 89E

PO Box 22024

Project Number:

03143-0424

Reported: 12-Jun-18 14:24

Tulsa OK, 74121-2024

Project Manager:

Steve Moskal

Notes and Definitions

DET

Analyte DETECTED

ND

Analyte NOT DETECTED at or above the reporting limit

NR

Not Reported

RPD

Relative Percent Difference

**

Methods marked with ** are non-accredited methods.

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laboratory@envirotech-inc.com

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envirotech Analytical Laboratory

Page



Analytical Report

Report Summary

Client: BP America Production Co. Chain Of Custody Number:

Samples Received: 6/12/2018 3:24:00PM

Job Number: 03143-0424 Work Order: P806028

Project Name/Location: GCU 89E

Report Reviewed By:	Walter Himpinan	Date:	6/14/18	
	Walter Hinchman, Laboratory Director			

Date:

6/14/18





Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.

Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.

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Envirotech, Inc, currently holds the appropriate and available Utah TNI certification NM009792018-1 for the data reported.

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BP America Production Co. Project Name: GCU 89E

PO Box 22024 Project Number: 03143-0424 Reported:
Tulsa OK, 74121-2024 Project Manager: Steve Moskal 14-Jun-18 16:13

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Extended South Wall 5-pt (6'-18')	P806028-01A	Solid	06/12/18	06/12/18	Glass Jar, 4 oz.
South Base 5-pt @ 20'	P806028-02A	Solid	06/12/18	06/12/18	Glass Jar, 4 oz.

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: Project Manager: 03143-0424

Reported: 14-Jun-18 16:13

Steve Moskal 14-J

Extended South Wall 5-pt (6'-18') P806028-01 (Solid)

		Reporting	•	-					
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1824016	06/12/18	06/12/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1824016	06/12/18	06/12/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1824016	06/12/18	06/12/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1824016	06/12/18	06/12/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1824016	06/12/18	06/12/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1824016	06/12/18	06/12/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1824016	06/12/18	06/12/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		105 %	50-	150	1824016	06/12/18	06/12/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1824016	06/12/18	06/12/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1824015	06/12/18	06/12/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1824015	06/12/18	06/12/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		98.2 %	50-	150	1824016	06/12/18	06/12/18	EPA 8015D	
Surrogate: n-Nonane		119 %	50-	200	1824015	06/12/18	06/12/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	28.1	20.0	mg/kg	1	1824017	06/13/18	06/14/18	EPA 300.0/9056A	

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Project Name:

GCU 89E

PO Box 22024

Tulsa OK, 74121-2024

Project Number: Project Manager: 03143-0424 Steve Moskal Reported:

14-Jun-18 16:13

South Base 5-pt @ 20' P806028-02 (Solid)

		10000	20-02 (50	, iiu					
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1824016	06/12/18	06/13/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1824016	06/12/18	06/13/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1824016	06/12/18	06/13/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1824016	06/12/18	06/13/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1824016	06/12/18	06/13/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1824016	06/12/18	06/13/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1824016	06/12/18	06/13/18	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		106 %	50-	-150	1824016	06/12/18	06/13/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1824016	06/12/18	06/13/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1824015	06/12/18	06/13/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1824015	06/12/18	06/13/18	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		102 %	50-	-150	1824016	06/12/18	06/13/18	EPA 8015D	
Surrogate: n-Nonane		127 %	50-	-200	1824015	06/12/18	06/13/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1824017	06/13/18	06/14/18	EPA 300.0/9056A	

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Page 4 of 10



Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: Project Manager:

03143-0424 Steve Moskal **Reported:** 14-Jun-18 16:13

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

rinaryte	Result	Limit	Omts	Level	Result	/orch	Limits	KI D	Limit	110103
Batch 1824016 - Purge and Trap EPA 50	030A									
Blank (1824016-BLK1)				Prepared &	: Analyzed:	12-Jun-18	3			
Benzene	ND	100	ug/kg							-
Toluene	ND	100	"							
Ethylbenzene	ND	100	"							
o,m-Xylene	ND	200	"							
o-Xylene	ND	100	"							
Total Xylenes	ND	100	"							
Total BTEX	ND	100	"							
Surrogate: 4-Bromochlorobenzene-PID	8400		"	8000		105	50-150			
LCS (1824016-BS1)				Prepared &	Analyzed:	12-Jun-18	3			
Benzene	4500	100	ug/kg	5000		90.0	70-130			
Toluene	4460	100	"	5000		89.2	70-130			
Ethylbenzene	4490	100	"	5000		89.8	70-130			
o,m-Xylene	9000	200	"	10000		90.1	70-130			
o-Xylene	4460	100	"	5000		89.1	70-130			
Total Xylenes	13500	100	"	15000		89.8	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8480		"	8000		106	50-150			
Matrix Spike (1824016-MS1)	Sourc	e: P806028-	01	Prepared &	Analyzed:	12-Jun-18	3			
Benzene	4680	100	ug/kg	5000	ND	93.6	54.3-133			
Toluene	4630	100	"	5000	ND	92.7	61.4-130			
Ethylbenzene	4650	100	"	5000	ND	93.0	61.4-133			
o,m-Xylene	9300	200	"	10000	ND	93.0	63.3-131			
o-Xylene	4580	100	"	5000	ND	91.6	63.3-131			
Total Xylenes	13900	100	"	15000	ND	92.5	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	8580		"	8000		107	50-150			
Matrix Spike Dup (1824016-MSD1)	Sourc	e: P806028-	01	Prepared: 1	2-Jun-18 A	Analyzed:	13-Jun-18			
Benzene	4810	100	ug/kg	5000	ND	96.3	54.3-133	2.78	20	
Toluene	4760	100	"	5000	ND	95.3	61.4-130	2.78	20	
Ethylbenzene	4800	100	"	5000	ND	96.0	61.4-133	3.19	20	
p,m-Xylene	9590	200	"	10000	ND	95.9	63.3-131	3.12	20	
o-Xylene	4730	100	"	5000	ND	94.7	63.3-131	3.28	20	
Total Xylenes	14300	100	"	15000	ND	95.5	63.3-131	3.17	20	
Surrogate: 4-Bromochlorobenzene-PID	8570		"	8000		107	50-150			

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Project Name:

GCU 89E

PO Box 22024 Project Number:

03143-0424

Reported:

Tulsa OK, 74121-2024 Project Manager:

Steve Moskal

14-Jun-18 16:13

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1824015 - DRO Extraction EPA 3570										
Blank (1824015-BLK1)				Prepared &	Analyzed:	12-Jun-18				
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	58.7		"	50.0		117	50-200			
LCS (1824015-BS1)				Prepared &	Analyzed:	12-Jun-18				
Diesel Range Organics (C10-C28)	537	25.0	mg/kg	500		107	38-132			
Surrogate: n-Nonane	63.8		"	50.0		128	50-200			
Matrix Spike (1824015-MS1)	Sou	rce: P806028-	01	Prepared &	Analyzed:	12-Jun-18				
Diesel Range Organics (C10-C28)	485	25.0	mg/kg	500	ND	97.0	38-132			
Surrogate: n-Nonane	56.7		"	50.0		113	50-200			
Matrix Spike Dup (1824015-MSD1)	Sou	rce: P806028-	01	Prepared &	Analyzed:	12-Jun-18				
Diesel Range Organics (C10-C28)	520	25.0	mg/kg	500	ND	104	38-132	7.01	20	
Surrogate: n-Nonane	60.7		"	50.0		121	50-200			

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number:

03143-0424

Reported:

Project Manager:

Steve Moskal

14-Jun-18 16:13

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1824016 - Purge and Trap EPA 5030A										
Blank (1824016-BLK1)				Prepared &	Analyzed:	12-Jun-18				
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.27		"	8.00		103	50-150			
LCS (1824016-BS2)				Prepared &	Analyzed:	12-Jun-18				
Gasoline Range Organics (C6-C10)	45.9	20.0	mg/kg	50.0		91.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.06		"	8.00		101	50-150			
Matrix Spike (1824016-MS2)	Sour	ce: P806028-	01	Prepared: 1	12-Jun-18 A	Analyzed: 1	3-Jun-18			
Gasoline Range Organics (C6-C10)	46.8	20.0	mg/kg	50.0	ND	93.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.38		"	8.00		105	50-150			
Matrix Spike Dup (1824016-MSD2)	Sour	ce: P806028-	01	Prepared: 1	12-Jun-18 A	Analyzed: 1	3-Jun-18			
Gasoline Range Organics (C6-C10)	49.4	20.0	mg/kg	50.0	ND	98.9	70-130	5.42	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.23		"	8.00		103	50-150			

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5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865



BP America Production Co.

Project Name:

GCU 89E

PO Box 22024 Project Number:

03143-0424

Reported:

Tulsa OK, 74121-2024

Project Manager: Steve Moskal

14-Jun-18 16:13

Anions by 300.0/9056A - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1824017 - Anion Extraction EPA 300.0/90)56A									
Blank (1824017-BLK1)				Prepared: 1	3-Jun-18 A	Analyzed: 1	4-Jun-18			
Chloride	ND	20.0	mg/kg							
LCS (1824017-BS1)				Prepared: 1	3-Jun-18 A	Analyzed: 1	4-Jun-18			
Chloride	253	20.0	mg/kg	250		101	90-110			
Matrix Spike (1824017-MS1)	Sourc	e: P806028-0	01	Prepared: 1	3-Jun-18 A	Analyzed: 1	4-Jun-18			
Chloride	290	20.0	mg/kg	250	28.1	105	80-120			
Matrix Spike Dup (1824017-MSD1)	Sourc	e: P806028-0	01	Prepared: 1	3-Jun-18 A	Analyzed: 1	4-Jun-18			
Chloride	286	20.0	mg/kg	250	28.1	103	80-120	1.11	20	

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envirotech-inc.com laboratory@envirotech-inc.com



BP America Production Co.

Project Name:

GCU 89E

PO Box 22024

Project Number:

03143-0424

Reported: 14-Jun-18 16:13

Tulsa OK, 74121-2024

Project Manager:

Steve Moskal

Notes and Definitions

DET

Analyte DETECTED

ND

Analyte NOT DETECTED at or above the reporting limit

NR

Not Reported

RPD

Relative Percent Difference

**

Methods marked with ** are non-accredited methods.

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5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

envirotech-inc.com

Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301

Ph (970) 259-0615 Fr (800) 362-1879

laboratory@envirotech-inc.com

Project	Informat	ion						Chain of Cu	stody												Pa	ige 1	of _
	BP AV						Report	Attention		W-50		1:	ab U	se Or	nlv		-	Т	AT			A Progr	
Project:	GCU	89E				B	Report due by: 6/1 Attention: Stéve	13/2018		Lab	wo	P WORN	chicumed	1.25.5	T. BENEF	nber		1	T	RCF		CWA	
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Time Sampled	Date Sampled	Matrix	No Containers	Sample					Lab Number	DRO/ORO by 8015	GRO/DRO by	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TPH 418.1						Rer	marks
1407	6/12/18	SOIL	1	Exten 5-	ded 5	6-6	(Wall (18°)		1	X	X	X		_	X							1- 40	oz Jar
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Sample Mate	rix: S - Soil, S	d - Solid, Sg	- Sludge, A	- Aqueous	O - Other				Container	Type	a. 0 -	alacc	D - 1	ooly/i	nlact	ic an	200	her	rlace	v 1/0) A		
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-	en	/ira	ote	ck	borator	ry with	n this COC. The liability of	the laboraotry is li	imited to the	amoui	nt paid	for o	n the r	eport.			.,				4116	,5.5 01 111	- above

envirotech
Analytical Laboratory

5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

Ph (970) 259-0615 Fr (800) 362-1879

envirotech-inc.com laboratory envirotech-inc.com



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

June 20, 2018

Steve Moskal

Blagg Engineering

P. O. Box 87

Bloomfield, NM 87413

TEL: (505) 632-1199 FAX (505) 632-3903

RE: GCU 89E OrderNo.: 1806A94

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 2 sample(s) on 6/19/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andel

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1806A94

Date Reported: 6/20/2018

Hall Environmental Analysis Laboratory, Inc.

 CLIENT:
 Blagg Engineering
 Client Sample ID: West Wall South Half (6-18)

 Project:
 GCU 89E
 Collection Date: 6/18/2018 9:22:00 AM

 Lab ID:
 1806A94-001
 Matrix: MEOH (SOIL)
 Received Date: 6/19/2018 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RAN	GE					Analyst	: AG
Gasoline Range Organics (GRO)	1200	38		mg/Kg	10	6/19/2018 12:51:48 PM	C52084
Surr: BFB	104	70-130		%Rec	10	6/19/2018 12:51:48 PM	C52084
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS					Analyst	: TOM
Diesel Range Organics (DRO)	1700	97		mg/Kg	10	6/19/2018 9:25:13 AM	38750
Motor Oil Range Organics (MRO)	550	490		mg/Kg	10	6/19/2018 9:25:13 AM	38750
Surr: DNOP	0	70-130	S	%Rec	10	6/19/2018 9:25:13 AM	38750

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 Analyte detected below quantitation limits Page 1 of 4 Η Holding times for preparation or analysis exceeded J ND Not Detected at the Reporting Limit P Sample pH Not In Range Practical Quanitative Limit Reporting Detection Limit POL RL% Recovery outside of range due to dilution or matrix Sample container temperature is out of limit as specified

Lab Order **1806A94**

Date Reported: 6/20/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT:Blagg EngineeringClient Sample ID: East Wall South Third (6-18)Project:GCU 89ECollection Date: 6/18/2018 9:33:00 AMLab ID:1806A94-002Matrix: MEOH (SOIL)Received Date: 6/19/2018 7:20:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANG	SE .				Analyst	: AG
Gasoline Range Organics (GRO)	1400	41	mg/Kg	10	6/19/2018 1:14:48 PM	C52084
Surr: BFB	104	70-130	%Rec	10	6/19/2018 1:14:48 PM	C52084
EPA METHOD 8015M/D: DIESEL RANGE ORG	BANICS				Analyst	: TOM
Diesel Range Organics (DRO)	650	9.5	mg/Kg	1	6/19/2018 11:27:47 AM	38750
Motor Oil Range Organics (MRO)	220	47	mg/Kg	1	6/19/2018 11:27:47 AM	38750
Surr: DNOP	123	70-130	%Rec	1	6/19/2018 11:27:47 AM	38750

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 Analyte detected below quantitation limits Page 2 of 4 Η Holding times for preparation or analysis exceeded J ND Not Detected at the Reporting Limit P Sample pH Not In Range Practical Quanitative Limit Reporting Detection Limit POL RL% Recovery outside of range due to dilution or matrix Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

20-Jun-18

1806A94

WO#:

Client:

Blagg Engineering

Project: GCU 89E

Sample ID LCS-38750	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS	Batch	ID: 387	750	R	tunNo: 5	2071				
Prep Date: 6/19/2018	Analysis D	ate: 6/	19/2018	S	SeqNo: 1	703957	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	92.6	70	130			
Surr: DNOP	4.9		5.000		97.7	70	130			

Sample ID MB-38750	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Die	esel Rang	e Organics	
Client ID: PBS	Batch	1D: 38	750	F	RunNo: 5	2071				
Prep Date: 6/19/2018	Analysis D	ate: 6/	19/2018	8	SeqNo: 1	703958	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		106	70	130			

Qualifiers:

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

Page 3 of 4

Hall Environmental Analysis Laboratory, Inc.

20-Jun-18

1806A94

WO#:

Client:

Blagg Engineering

GCU 89E **Project:**

Sample ID 2.5ug gro Ics SampType: LCS TestCode: EPA Method 8015D Mod: Gasoline Range Client ID: LCSS Batch ID: C52084 RunNo: 52084

Prep Date: SeqNo: 1704338 Analysis Date: 6/19/2018 Units: mg/Kg

SPK value SPK Ref Val HighLimit Result PQL %REC %RPD **RPDLimit** Qual Analyte LowLimit

28 0 110 70 Gasoline Range Organics (GRO) 5.0 25.00 130 Surr: BFB 500 500.0 100 70 130

Sample ID rb SampType: MBLK TestCode: EPA Method 8015D Mod: Gasoline Range Client ID: Batch ID: C52084 RunNo: 52084 Prep Date: Analysis Date: 6/19/2018 SeqNo: 1704339 Units: mg/Kg **PQL** SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte Result LowLimit Qual

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 560 500.0 112 70 130

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
- **PQL** Practical Quanitative Limit
- % 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
- RLReporting Detection Limit
- Sample container temperature is out of limit as specified

Page 4 of 4



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: BLA	GG	Work Order Numb	er. 180	6A94		ReptNo: 1
Received By: Isai	ah Ortiz	6/19/2018 7:20:00 A	м		ION	-
Completed By: Isai	ah Ortiz	6/19/2018 7:46:36 A	M		ICA	-
Reviewed By: EX	M	61AV18			L	6:5BOG/19/18
Chain of Custody						
1. Is Chain of Custody	complete?		Yes	~	No 🗆	Not Present
2 How was the sample	e delivered?		Cou	nier		
Log in						
3. Was an attempt ma	de to cool the sa	mples?	Yes	✓	No 🗌	NA 🗆
4. Were all samples re	ceived at a temp	erature of >0° C to 6.0°C	Yes	~	No 🗆	NA 🗆
5. Sample(s) in proper	container(s)?		Yes	•	Na 🗆	
6. Sufficient sample vo	lume for indicate	d test(s)?	Yes	•	No 🗆	
7. Are samples (except	VOA and ONG)	properly preserved?	Yes	~	No 🗌	
8. Was preservative ad	ided to bottles?		Yes		No 🗸	NA 🗆
9. VOA vials have zero	headspace?		Yes		No 🗌	No VOA Vials 🗸
IO, Were any sample co	ontainers receive	d broken?	Yes		No 🗸	# of preserved
11. Does paperwork ma (Note discrepancies			Yes	~	No 🗌	bottles checked for pH: (<2 or >12 unless hoted
2. Are matrices correct			Yes	~	No 🗆	Adjusted?
3. Is it clear what analy			Yes	V	No 🗌	/ L
4. Were all holding time (If no, notify custome			Yes	V	No 🗆	Checked by D
Special Handling (i						
15. Was client notified of	1000 C		Yes		No 🗌	NA 🗹
Person Notifie	ed:	Date:	,			
By Whom:		Via:	☐ eMa	ail 🗀 I	Phone Fax	In Person
Regarding		VIG.				
Client Instruct	ions:				-	
16. Additional remarks:		11111 2 11				
17. Cooler Information		configuration to the second				
Cooler No Ter	mp °C Conditi	on Seal Intact Seal No	Seal D	ate	Signed By	

HALL ENVIRONMENTAL		6					1)	N no) (Y	səlddu8 ıiA							TESTY OF	11-00 CT-F-60
Σg	, .	Albuquerque, NM 87109	107		_			(A	OV	-ime2) 0728			+				3,	17:5
ON	www.hallenvironmental.com	Z	Fax 505-345-4107	iest				7.2		8260B (VOA				+			文 4 2,4 2,4	200
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		4901	Tel.							TM + X3T8	^	^	+	+	+++	++	- Sirks:	13/4 X
					30.00					TM + X3T8			1	+			Remarks: DEPENDING Request	COUTAGE VIN.
Standard Krush DAY		600 BYE	ct#;		Project Manager:	STEVE MOSFIX	Der Hart Base	1000	Sample Temperature: 1 (-10(cr) 0.1	Container Preservative HEAL No. Type and # 1800.4994	02×1 100001	w ~00a					stilled This	red by: Date Time
S	Proje		Project #:		Proje		Sampler.	On Ice:	Samp	Type	40		+	11			Recei	Received by
Client: BP America	BLAGG ENGINERAND IN C.	Mailing Address:		## 505-320-1(83	email or Fax#:	QA/QC Package:		LAP □ Other	□ EDD (Type)	Time Matrix	250 Soul West	0933 vi					1	Time: Relinquished by:
Client:		Mailing		Phone #:	email o	QA/QC Packa	Accred	□ NELAP	O EDD	Date	61/8/	11					Date:	Date:



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

June 25, 2018

Steve Moskal

Blagg Engineering

P. O. Box 87

Bloomfield, NM 87413

TEL: (505) 632-1199 FAX (505) 632-3903

RE: GCU 89E OrderNo.: 1806C88

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 1 sample(s) on 6/21/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1806C88

Date Reported: 6/25/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Client Sample ID: South Base East Extension @ 19

 Project:
 GCU 89E
 Collection Date: 6/20/2018 2:15:00 PM

 Lab ID:
 1806C88-001
 Matrix: MEOH (SOIL)
 Received Date: 6/21/2018 7:11:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: smb
Chloride	34	30	mg/Kg	20	6/21/2018 1:56:55 PM	38815
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: TOM
Diesel Range Organics (DRO)	ND	9.2	mg/Kg	1	6/21/2018 11:32:54 AM	38808
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	6/21/2018 11:32:54 AM	38808
Surr: DNOP	103	70-130	%Rec	1	6/21/2018 11:32:54 AM	38808
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.1	mg/Kg	1	6/21/2018 10:45:40 AM	38791
Surr: BFB	86.0	15-316	%Rec	1	6/21/2018 10:45:40 AM	38791
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.020	mg/Kg	1	6/21/2018 10:45:40 AM	38791
Toluene	ND	0.041	mg/Kg	1	6/21/2018 10:45:40 AM	38791
Ethylbenzene	ND	0.041	mg/Kg	1	6/21/2018 10:45:40 AM	38791
Xylenes, Total	ND	0.081	mg/Kg	1	6/21/2018 10:45:40 AM	38791
Surr: 4-Bromofluorobenzene	100	80-120	%Rec	1	6/21/2018 10:45:40 AM	38791

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 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, Inc.

25-Jun-18

1806C88

Client:

Blagg Engineering

Project:

GCU 89E

Sample ID MB-38815

SampType: mblk

TestCode: EPA Method 300.0: Anions

LowLimit

Client ID: **PBS** Batch ID: 38815

Result

RunNo: 52139

Prep Date: 6/21/2018 Analysis Date: 6/21/2018 PQL

SeqNo: 1708541

Units: mg/Kg HighLimit %RPD

RPDLimit

WO#:

Qual

Analyte Chloride

ND 1.5

Sample ID LCS-38815

SampType: Ics

TestCode: EPA Method 300.0: Anions

%REC

Client ID: **LCSS**

Batch ID: 38815 Analysis Date: 6/21/2018 RunNo: 52139

SPK value SPK Ref Val

SeqNo: 1708542

Units: mg/Kg

Analyte

PQL

Qual

Chloride

1.5

90

110

Prep Date:

6/21/2018

Result 14

SPK value SPK Ref Val

15.00

0

95.5

%REC LowLimit

HighLimit

%RPD

RPDLimit

Qualifiers:

Н

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit % Recovery outside of range due to dilution or matrix

Holding times for preparation or analysis exceeded

В Analyte detected in the associated Method Blank

Analyte detected below quantitation limits

Е Value above quantitation range

P Sample pH Not In Range

J

RLReporting Detection Limit Sample container temperature is out of limit as specified Page 2 of 5

Hall Environmental Analysis Laboratory, Inc.

25-Jun-18

1806C88

WO#:

Client:

Blagg Engineering

Project: GCU 89E

Sample ID LCS-38808	SampT	ype: LC	s	Test	tCode: EF	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS	Batch	ID: 38	808	R	tunNo: 52	2132				
Prep Date: 6/21/2018	Analysis D	ate: 6/	21/2018	S	SeqNo: 1	707219	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	85.5	70	130			
Surr: DNOP	4.9		5.000		97.1	70	130			

Sample ID MB-38808	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: PBS	Batch	1D: 38	808	F	RunNo: 5	2132				
Prep Date: 6/21/2018	Analysis D	ate: 6/	21/2018	S	SeqNo: 1	707225	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
3. 3 ,										

Qualifiers:

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

Page 3 of 5

Hall Environmental Analysis Laboratory, Inc.

990

25-Jun-18

1806C88

WO#:

Client:

Surr: BFB

Blagg Engineering

Project: GCU 89E

Sample ID MB-38791 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range Client ID: **PBS** Batch ID: 38791 RunNo: 52136 Prep Date: 6/20/2018 Analysis Date: 6/21/2018 SeqNo: 1707771 Units: mg/Kg SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result **PQL** ND Gasoline Range Organics (GRO) 5.0 Surr: BFB 880 1000 88.0 15 316

Sample ID LCS-38791 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: **LCSS** Batch ID: 38791 RunNo: 52136 Prep Date: 6/20/2018 Analysis Date: 6/21/2018 SeqNo: 1707772 Units: mg/Kg SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte Result PQL SPK value LowLimit Qual Gasoline Range Organics (GRO) 27 5.0 25.00 0 108 75.9 131

98.5

15

316

1000

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 4 of 5

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

1806C88

25-Jun-18

WO#:

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

nalysis Laboratory, Inc.

Client: Blagg Engineering

Project: GCU 89E

Sample ID MB-38791	SampT	уре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: PBS	Batch	n ID: 38	791	F	RunNo: 5	2136				
Prep Date: 6/20/2018	Analysis D	Date: 6/	21/2018	S	SeqNo: 1	707783	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID LCS-38791	SampT	ype: LC	S	TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batcl	n ID: 38	791	F	RunNo: 5	2136					
Prep Date: 6/20/2018 Analysis Date: 6/21/2018 SeqNo: 170778							Units: mg/k	(g			
Analyte	Result	PQL	SPK value	value SPK Ref Val %REC LowL		LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.96	0.025	1.000	0	96.2	77.3	128				
Toluene	0.97	0.050	1.000	0	97.5	79.2	125				
Ethylbenzene	0.97	0.050	1.000	0	97.2	80.7	127				
ylenes, Total 3.0 0.10 3.000			3.000	0	99.4	81.6	129				
Surr: 4-Bromofluorobenzene	1.1		1.000		105	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
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 5 of 5



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Sample Log-In Check List Website: www.hallenvironmental.com

Clier	nt Name:	BLAGG		Work	Order Numb	er: 180	6C88			ReptNo	p: 1
D	tond Don	1		0/04/00	40.744.00.4			-T /	~ <u> </u>	-	
Rece	eived By:	Isaiah Orti			18 7:11:00 A			(,	-	
Com	pleted By:	Isaiah Orti	z		18 7:40:01 A	М		エ	}	-	
Revie	ewed By:	<i>∓</i> 0	L. 5	6/21/	18						
ļ	MW	121	81/15								
<u>Chai</u>	n of Cus	tody	·								
1. Is	Chain of Cu	istody compl	ete?			Yes	V	No		Not Present	
2. Ho	ow was the	sample delive	ered?			Cou	rier				
Log	ıIn										
		pt made to c	ool the sampl	es?		Yes	~	No		NA □	
		,									
4. We	ere all samp	les received	at a temperat	ure of >0°C1	to 6.0°C	Yes	✓	No		NA □	
_							_				
5. Sa	ımple(s) in p	proper contain	ner(s)?			Yes	✓	No			
6. Suf	fficient sam	ple volume fo	or indicated te	st(s)?		Yes	V	No			
7. Are	e samples (e	except VOA a	and ONG) pro	perly preserve	ed?	Yes	V	No			4
8. Wa	as preservat	ive added to	bottles?			Yes		No	✓	NA 🗌	mulatzilla
										_	wer.
9. VO	A vials have	e zero heads	pace?			Yes				No VOA Vials 🗹	Mr.
10. W∈	ere any sam	ple containe	rs received br	oken?		Yes		No	V	# of preserved	17/12
44.5										bottles checked 🔪	792
		rk match bott ncies on cha	ile labels? in of custody)			Yes	✓	No		for pH:	12 unless noted)
			ified on Chair			Yes	V	No		Adjuster _	
			re requested?			Yes	\checkmark	No		11/19	
14.We	ere all holdin	ig times able	to be met?			Yes	V	No		Checked by:	
(lf r	no, notify cu	stomer for a	uthorization.)						Į		
Specia	al Handli	ng (if app	licable)								
15. Wa	as client not	ified of all dis	screpancies w	ith this order?		Yes		No		NA 🗹	
	Person I	Notified:			Date:			-	N. P. C.		
	By Who	m:	and the same of th	A THE PERSON OF	Via:	□ еМа	ail 🔲] Phone [Fax	In Person	
	Regardii	ng:									
	Client In	structions:	da ana are-estamana		· · · · · · · · · · · · · · · · · · ·			· · · · · · · · · · · · · · · · · · ·			
16. Ad	dditional ren	narks:			,						1
17. ca	ooler Infor	nation									
<u></u>	Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal D	ate I	Signed	Ву		
1		1.8	Good	Yes					- Canada		
2		1.9	Good	Yes						_	
[3)	0.3	Good	Yes	1 1					I	

	HALL ENVIRONMENTAL ANALYSIS LABORATORY	www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107	Analysis Request	(V) (V)	OS / MF	H-GT + 1 O 1 O 1 O 1 O 1 O 1 O 1 O 1 O 1 O 1	(GF	1 4	X						ne Remarks: Bill 20 Moster.	1/ WBS: L1-001cT-E:6cu89E	If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.
Turn-Around Time:	Standard XRush	Project Name: GCU GRE	Project #:		Project Manager:	STEVE MOSKAC	Sampler: ブモボー 兄んと On Ice: IXYes: INo	lua eu	Container Preservative HEAL No. Type and # Type	100- con -001						Poceived by: Date Time	Received by: Connected by: Date Time Country Control Date D	tracted to other accredited laboratories. This serves as notic
Chain-of-Custody Record		(NEERING INC.		Phone #: (505) 320 - 1183		QA/QC Package: XStandard Level 4 (Full Validation)	Accreditation	□ EDD (Type)	Matrix Sample Request ID	Yashory 1415 Sou South Base, East Extraion 1						Slye	Wholes I'll Mak Colle	If necessary, samples submitted to Hall Environmental may be subcom



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

June 25, 2018

Steve Moskal

Blagg Engineering

P. O. Box 87

Bloomfield, NM 87413

TEL: (505) 632-1199 FAX (505) 632-3903

RE: GCU 89E OrderNo.: 1806C90

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 1 sample(s) on 6/21/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andel

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1806C90

Date Reported: 6/25/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Client Sample ID: East Wall 5-pt Composite Impact

 Project:
 GCU 89E
 Collection Date: 6/20/2018 12:45:00 PM

 Lab ID:
 1806C90-001
 Matrix: SOIL
 Received Date: 6/21/2018 7:11:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst	:: ТОМ
Diesel Range Organics (DRO)	700	9.3		mg/Kg	1	6/21/2018 12:17:07 PM	38808
Motor Oil Range Organics (MRO)	310	46		mg/Kg	1	6/21/2018 12:17:07 PM	38808
Surr: DNOP	123	70-130		%Rec	1	6/21/2018 12:17:07 PM	38808
EPA METHOD 8015D: GASOLINE RANGE						Analyst	:: NSB
Gasoline Range Organics (GRO)	930	21		mg/Kg	5	6/21/2018 9:35:34 AM	38791
Surr: BFB	1130	15-316	S	%Rec	5	6/21/2018 9:35:34 AM	38791

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 3
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

25-Jun-18

1806C90

WO#:

Client:

Blagg Engineering

Project: GCU 89E

Sample ID LCS-38808	SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics											
Client ID: LCSS	Batch	ID: 388	808	R	tunNo: 52	2132						
Prep Date: 6/21/2018	Analysis D	ate: 6/ 2	21/2018	S	SeqNo: 1	707219	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Diesel Range Organics (DRO)	43	10	50.00	0	85.5	70	130					
Surr: DNOP	4.9		5.000		97.1	70	130					

Sample ID MB-38808	SampT	ype: ME	BLK	Tes	8015M/D: Die	esel Rang	e Organics									
Client ID: PBS	Batch	1D: 38	808	F												
Prep Date: 6/21/2018	ep Date: 6/21/2018 Analysis Date: 6/21/2018 SeqNo: 1707225									Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual						
Diesel Range Organics (DRO)	ND	10														
Motor Oil Range Organics (MRO)	ND	50														
Surr: DNOP	10		10.00		101	70	130									

Qualifiers:

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

Page 2 of 3

Hall Environmental Analysis Laboratory, Inc.

25-Jun-18

1806C90

WO#:

Client:

Blagg Engineering

Project: GCU 89E

Sample ID MB-38791	SampT	ype: ME	BLK	Tes	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch	ID: 387	791	R	RunNo: 5	2136							
Prep Date: 6/20/2018	Analysis D	ate: 6/ 2	21/2018	S	SeqNo: 1	707771	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	880		1000		88.0	15	316						

Sample ID LCS-38791	SampType: LCS TestCode: EPA Method 8015D: Gasoline Range												
Client ID: LCSS	Batch	1D: 38	791	R	2136								
Prep Date: 6/20/2018	Analysis D	ate: 6/	21/2018	S	SeqNo: 1	707772	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Gasoline Range Organics (GRO)	27	5.0	25.00	0	108	75.9	131		•				
Surr. RER	990		1000		08.5	15	316						

Qualifiers:

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

Page 3 of 3



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Sample Log-In Check List

LABORATOR	Website: www	.hallenvironmental.	.com		
Client Name: BLAGG	Work Order Numb	per: 1806C90		RcptNo:	1
Received By: Isaiah Ortiz	6/21/2018 7:11:00 A	AM	IO	-	
Completed By: Isaiah Ortiz	6/21/2018 8:01:06 A	M	ICH	_	
Reviewed By: 2018 Chain of Custody	4/21/18				
Is Chain of Custody complete?		Yes 🔽	No 🗌	Not Present	
2. How was the sample delivered?		Courier			
<u>Log In</u>					
Was an attempt made to cool the sa	mples?	Yes 🔽	No 🗆	NA 🗆	
4. Were all samples received at a temp	erature of >0° C to 6.0°C	Yes 🔽	No 🗆	NA \square	
5. Sample(s) in proper container(s)?		Yes 🗹	No 🗌		
6. Sufficient sample volume for indicate	d test(s)?	Yes 🗹	No 🗆		
7. Are samples (except VOA and ONG)	properly preserved?	Yes 🗹	No 🗌		
8. Was preservative added to bottles?		Yes 🗌	No 🗹	NA 🗆	
9. VOA vials have zero headspace?		Yes	No 🗌	No VOA Vials 🗹	
10. Were any sample containers receive	d broken?	Yes	No 🗹	# of preserved	
11. Does paperwork match bottle labels? (Note discrepancies on chain of cust		Yes 🗹	No 🗆	bottles checked for pH:	2 unless noted)
12. Are matrices correctly identified on C	hain of Custody?	Yes 🗹	No 🗆	Adjusted?	`
13. Is it clear what analyses were reques	ted?	Yes 🗹	No 🗌	NING	
 Were all holding times able to be me (If no, notify customer for authorization) 		Yes 🗹	No 🗆	Checked by:	
Special Handling (if applicable)					
15. Was client notified of all discrepancion	es with this order?	Yes	No 🗌	NA 🗹	
Person Notified: By Whom: Regarding: Client Instructions:	Date:	STATE OF THE PROPERTY OF THE P	hone Fax	☐ In Person	
16. Additional remarks:		The state of the s			I
17. Cooler Information					
Cooler No Temp C Condition	on Seal Intact Seal No	Seal Date	Signed By		
1 1.8 Good	Yes				
2 1.9 Good	Yes				
3 0.3 Good	Yes				

Turn-Around Time:	Standard XRush ARI STS LABORATORY		GCU B9E 4901 Hawkins NE - Albuquerque NM 87109	Project #: Tel. 505-345-3975 Fax 505-345-4107	Anal	Project Manager:	STEVE MOKAL (8021	Sampler: JEFF B.466 TMB's NO2,F 100 / DR 8.1) A.1) S270 SI A.1) A.1)	+ + + + + + + + + + + + + + + + + + +	Container Preservative HEAL Type and #	4 02 × 1 COOL X						Time: Relinquished by. Time: Relinquished by. Received by: Date Time Remarks: But BP Construct Step Time Received by: Date Time W.BS: L1-CO1CT-E:GCU89E Sh. Must Contruct Call St. O7:11 Call Contruct Call St. O7:11 Call Contruct Call Call
Chain-of-Custody Record Turn-Around Time:	□ Standard	Project Name:	₩ N N N N N N N N N N N N N N N N N N N	Project #:	Phone #: 505 - 320 - 1/83		QA/QC Package: Steve MoskA	Sampler:	VDE)	Matrix Sample Request ID	~						Date: Time: Relinquished by: Sold Date: Time: Relinquished by: Whole 18h Mut Lork The Courier



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

June 27, 2018

Steve Moskal

Blagg Engineering

P. O. Box 87

Bloomfield, NM 87413

TEL: (505) 632-1199 FAX (505) 632-3903

RE: GCU 89E OrderNo.: 1806F17

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 3 sample(s) on 6/26/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andel

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order **1806F17**

Date Reported: 6/27/2018

Hall Environmental Analysis Laboratory, Inc.

 CLIENT:
 Blagg Engineering
 Client Sample ID: NE Base 6-pt (18'-22')

 Project:
 GCU 89E
 Collection Date: 6/25/2018 1:18:00 PM

 Lab ID:
 1806F17-001
 Matrix:
 SOIL
 Received Date: 6/26/2018 7:00:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	41	30	mg/Kg	20	6/26/2018 11:29:31 AM	38882
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: TOM
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	6/26/2018 10:41:16 AM	38880
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	6/26/2018 10:41:16 AM	38880
Surr: DNOP	93.1	70-130	%Rec	1	6/26/2018 10:41:16 AM	38880
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	3.9	mg/Kg	1	6/26/2018 10:39:29 AM	38874
Surr: BFB	82.3	15-316	%Rec	1	6/26/2018 10:39:29 AM	38874
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.019	mg/Kg	1	6/26/2018 10:39:29 AM	38874
Toluene	ND	0.039	mg/Kg	1	6/26/2018 10:39:29 AM	38874
Ethylbenzene	ND	0.039	mg/Kg	1	6/26/2018 10:39:29 AM	38874
Xylenes, Total	ND	0.078	mg/Kg	1	6/26/2018 10:39:29 AM	38874
Surr: 4-Bromofluorobenzene	99.0	80-120	%Rec	1	6/26/2018 10:39:29 AM	38874

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 7
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order **1806F17**

Date Reported: 6/27/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Client Sample ID: NORTH Wall (East 1) 5-pt (6'-1

 Project:
 GCU 89E
 Collection Date: 6/25/2018 1:26:00 PM

 Lab ID:
 1806F17-002
 Matrix: SOIL
 Received Date: 6/26/2018 7:00:00 AM

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	MRA
Chloride	ND	30	mg/Kg	20	6/26/2018 11:41:56 AM	38882
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst:	TOM
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	6/26/2018 11:03:24 AM	38880
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	6/26/2018 11:03:24 AM	38880
Surr: DNOP	91.2	70-130	%Rec	1	6/26/2018 11:03:24 AM	38880
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.1	mg/Kg	1	6/26/2018 11:02:48 AM	38874
Surr: BFB	76.4	15-316	%Rec	1	6/26/2018 11:02:48 AM	38874
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.021	mg/Kg	1	6/26/2018 11:02:48 AM	38874
Toluene	ND	0.041	mg/Kg	1	6/26/2018 11:02:48 AM	38874
Ethylbenzene	ND	0.041	mg/Kg	1	6/26/2018 11:02:48 AM	38874
Xylenes, Total	ND	0.082	mg/Kg	1	6/26/2018 11:02:48 AM	38874
Surr: 4-Bromofluorobenzene	95.8	80-120	%Rec	1	6/26/2018 11:02:48 AM	38874

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 7
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order **1806F17**

Date Reported: 6/27/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Client Sample ID: EAST Wall (North 1) 5-pt (6'-18'

 Project:
 GCU 89E
 Collection Date: 6/25/2018 1:31:00 PM

 Lab ID:
 1806F17-003
 Matrix: SOIL
 Received Date: 6/26/2018 7:00:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	6/26/2018 11:54:21 AM	38882
EPA METHOD 8015M/D: DIESEL RANGE ORG	GANICS				Analyst	: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	6/26/2018 11:25:31 AM	38880
Motor Oil Range Organics (MRO)	ND	51	mg/Kg	1	6/26/2018 11:25:31 AM	38880
Surr: DNOP	91.4	70-130	%Rec	1	6/26/2018 11:25:31 AM	38880
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.1	mg/Kg	1	6/26/2018 11:26:08 AM	38874
Surr: BFB	79.1	15-316	%Rec	1	6/26/2018 11:26:08 AM	38874
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.021	mg/Kg	1	6/26/2018 11:26:08 AM	38874
Toluene	ND	0.041	mg/Kg	1	6/26/2018 11:26:08 AM	38874
Ethylbenzene	ND	0.041	mg/Kg	1	6/26/2018 11:26:08 AM	38874
Xylenes, Total	ND	0.083	mg/Kg	1	6/26/2018 11:26:08 AM	38874
Surr: 4-Bromofluorobenzene	101	80-120	%Rec	1	6/26/2018 11:26:08 AM	38874

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 7
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

1806F17 27-Jun-18

Client:

Blagg Engineering

GCU 89E **Project:**

Sample ID MB-38882

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID: **PBS**

Batch ID: 38882

RunNo: 52249

Prep Date: 6/26/2018

Analysis Date: 6/26/2018

Units: mg/Kg

Analyte

Result

PQL SPK value SPK Ref Val

SeqNo: 1712958 %REC LowLimit

HighLimit

%RPD **RPDLimit**

WO#:

Qual

Chloride

ND 1.5

SampType: LCS

TestCode: EPA Method 300.0: Anions

Client ID:

Prep Date:

Sample ID LCS-38882

LCSS

6/26/2018

Batch ID: 38882 Analysis Date: 6/26/2018

RunNo: 52249

SeqNo: 1712959

Units: mg/Kg

HighLimit %RPD

RPDLimit

Qual

Analyte

PQL SPK value SPK Ref Val

%REC

Chloride

1.5

97.3

LowLimit

110

15

0

90

15.00

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 **PQL** Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range

Reporting Detection Limit

- J Analyte detected below quantitation limits
- P Sample pH Not In Range

RL

Sample container temperature is out of limit as specified

Page 4 of 7

Hall Environmental Analysis Laboratory, Inc.

1806F17 27-Jun-18

WO#:

Client:

Blagg Engineering

Project: GCU 89E

Sample ID LCS-38880	SampT	ype: LC	s	8015M/D: Di	esel Rang	e Organics								
Client ID: LCSS	Batch	ID: 38	880	R										
Prep Date: 6/26/2018	Analysis D	ate: 6/	26/2018	S	SeqNo: 1	711417	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Diesel Range Organics (DRO)	42	10	50.00	0	83.5	70	130							
Surr: DNOP	4.3		5.000		86.9	70	130							

Sample ID MB-38880	SampT	ype: ME	BLK	d 8015M/D: Diesel Range Organics											
Client ID: PBS	Batch ID: 38880 RunNo: 52229														
Prep Date: 6/26/2018	26/2018 Analysis Date: 6/26/2018 SeqNo: 1711418 U								Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual					
Diesel Range Organics (DRO)	ND	10													
Motor Oil Range Organics (MRO)	ND	50													
Surr: DNOP	10		10.00		101	70	130								

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 5 of 7

Hall Environmental Analysis Laboratory, Inc.

27-Jun-18

1806F17

WO#:

Client:

Blagg Engineering

GCU 89E Project:

Sample ID MB-38874	SampT	ype: ME	BLK	Test	е					
Client ID: PBS	Batch	874	R							
Prep Date: 6/25/2018	Analysis D	ate: 6/ 2	26/2018	S	SeqNo: 1	712080	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	870		1000		86.8	15	316			

Sample ID LCS-38874	SampT	ype: LC	s	Tes	TestCode: EPA Method 8015D: Gasoline Range										
Client ID: LCSS	Batch	Batch ID: 38874 RunNo: 52243													
Prep Date: 6/25/2018	18 Analysis Date: 6/26/2018					712081	Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual					
Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	75.9	131								
Surry RER	1000		1000		104	15	316								

Qualifiers:

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

Page 6 of 7

Hall Environmental Analysis Laboratory, Inc.

27-Jun-18

1806F17

WO#:

Client:

Blagg Engineering

Project: GCU 89E

Sample ID MB-38874	SampT	уре: МЕ	BLK	TestCode: EPA Method 8021B: Volatiles									
Client ID: PBS	Batch	n ID: 38	874	F	RunNo: 5	2243							
Prep Date: 6/25/2018	Analysis D	oate: 6/	26/2018	S	SeqNo: 1	712109	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	ND	0.025											
Toluene	ND	0.050											
Ethylbenzene	ND	0.050											
Xylenes, Total	ND	0.10											
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120						

Sample ID LCS-38874	SampT	ype: LC	S	Tes	d 8021B: Volatiles								
Client ID: LCSS	Batch	n ID: 38	874	RunNo: 52243									
Prep Date: 6/25/2018	Analysis D	Date: 6/	26/2018	8	712110 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	0.95	0.025	1.000	0	95.4	77.3	128						
Toluene	0.96	0.050	1.000	0	96.1	79.2	125						
Ethylbenzene	0.95	0.050	1.000	0	95.2	80.7	127						
Xylenes, Total	2.9	0.10	3.000	0	96.8	81.6	129						
Surr: 4-Bromofluorobenzene	1.0		1.000		104	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
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 7 of 7



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

Sample Log-In Check List

Client Name: BLAGG	Work Order Number	180	6F17			RcptNo	p: 1
Received By: Anne Thorne	6/26/2018 7:00:00 AM			ann ,	J	_	
Completed By: Anne Thorne Reviewed By: TO Walled by: Anne Thorne	6/26/2018 7:24:30 AM &\ZC\ 18			Anne 2	A.	_	
Chain of Custody 1. Is Chain of Custody complete?		Vac	~	No [7	Not Present	
How was the sample delivered?		Cou	_		_	HOLF TOSCIA .	
<u>Log In</u>							
Was an attempt made to cool the sample	s?	Yes	✓	No [na 🗆	
4. Were all samples received at a temperatu	re of >0° C to 6.0°C	Yes	✓	No [na 🗆	
5. Sample(s) in proper container(s)?		Yes	✓	No 🗆			
Sufficient sample volume for indicated tes	:(s)?	Yes	✓	No □			
7. Are samples (except VOA and ONG) prop	erly preserved?	Yes	✓	No 🗆			
8. Was preservative added to bottles?		Yes		No 🗹		NA 🗆	
9. VOA vials have zero headspace?		Yes		No 🗆		No VOA Vials	
10. Were any sample containers received bro	ken?	Yes		No 💆		# of proposited	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes	✓	No 🗆		# of preserved bottles checked for pH:	or >12 unless noted)
2 Are matrices correctly identified on Chain	of Custody?	Yes	✓	No 🗆]	Adjusted?	
3. Is it clear what analyses were requested?		Yes	✓	No 🗆] [
4. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes	✓	No 🗆		Checked by: _	·
Special Handling (if applicable)							
15. Was client notified of all discrepancies wit	h this order?	Yes		No 🗆		NA 🗹	
Person Notified: By Whom: Regarding:	Date Via:] eMa	ail [Phone F	ax	☐ In Person	
Client Instructions:		***************************************	William Control		***************************************		
16. Additional remarks:							
17. <u>Cooler Information</u>							
Cooler No Temp °C Condition		eal D	ate	Signed By			
1 1.4 Good Y	es						

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		<u> </u>	w.h	빌	Tel. 505-345-3975	·		— —	SMI				orbom, 444 ore8) a'HA9										' ''≶;'
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	7 [4901 Hawkins NE	505		(C)	-11/I	/ O				TPH 8015B			V							Remarks: Buc BP Courder VID: WBS Elemen
	200			490	<u>1</u>								BTEX + MTI										arks: j
	_l L												BTEX + M T		X	×					 		Sems,
SAME SAY			· W							7	. □ No		HEAL NO.	102-	702	203	-						Date Time I $\sqrt{2s/18}/\sqrt{6/8}$ Date Time $\sqrt{2u'/8}$
:	K Rush	1	S. BRE)			ager:	Marie	いたあずるがん	JER BLALL	X Yes	emperature: /c	Preservative Type	7085	11	Л							Last M
	□ Standard	Project Name	75))	Project #:		Project Manager:	<u>أ</u> 	151V	Sampler: 💆	1.330		Acululii Container Type and #	402×1	11	11							Received by: Received by:
Cilain-ol-custody Necold	4	8	EERING INC.			505-320-1183			☐ Level 4 (Full Validation)				Sample Request ID	NE BAE 6-Pt(10-121)		Enst wall (North 1) 5-pt (1-18)							CESS
ユン!!!	BP AMERICA		BLAGE ENGINEERING Address:	,		15-32					□ Other		Matrix	Soil	н)							Relinquished by
	1 SB	,	SLAGG Mailing Address:				email or Fax#:	QA/QC Package:	dard	itation	АР	□ EDD (Type)	Time	1318	1326	1331							Time: [6.1 \% \frac{\kappa_0 \sqrt{\kappa_0}}{\kappa_0 \sqrt{\kappa_0}}
	Client:		Mailing	2		Phone #:	email c	QA/QC	Standard	Accreditation	□ NELAP		Date	6/23/9	и	=							175/18 Date:



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

June 29, 2018

Steve Moskal

Blagg Engineering

P. O. Box 87

Bloomfield, NM 87413

TEL: (505) 632-1199 FAX (505) 632-3903

RE: GCU 89E OrderNo.: 1806F82

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 2 sample(s) on 6/27/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andel

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1806F82

Date Reported: 6/29/2018

Hall Environmental Analysis Laboratory, Inc.

 CLIENT:
 Blagg Engineering
 Client Sample ID: NE Base #2 @ 19'

 Project:
 GCU 89E
 Collection Date: 6/26/2018 1:42:00 PM

 Lab ID:
 1806F82-001
 Matrix:
 SOIL
 Received Date: 6/27/2018 7:55:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	6/27/2018 11:45:09 AM	38916
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	TOM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	6/27/2018 9:42:01 AM	38909
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	6/27/2018 9:42:01 AM	38909
Surr: DNOP	99.2	70-130	%Rec	1	6/27/2018 9:42:01 AM	38909
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.0	mg/Kg	1	6/27/2018 9:30:39 AM	G52273
Surr: BFB	87.8	15-316	%Rec	1	6/27/2018 9:30:39 AM	G52273
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.020	mg/Kg	1	6/27/2018 9:30:39 AM	B52273
Toluene	ND	0.040	mg/Kg	1	6/27/2018 9:30:39 AM	B52273
Ethylbenzene	ND	0.040	mg/Kg	1	6/27/2018 9:30:39 AM	B52273
Xylenes, Total	ND	0.080	mg/Kg	1	6/27/2018 9:30:39 AM	B52273
Surr: 4-Bromofluorobenzene	99.8	80-120	%Rec	1	6/27/2018 9:30:39 AM	B52273

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1806F82

Date Reported: 6/29/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Client Sample ID: NORTH Wall (East 2) 5-pt (6'-1

 Project:
 GCU 89E
 Collection Date: 6/26/2018 1:52:00 PM

 Lab ID:
 1806F82-002
 Matrix: SOIL
 Received Date: 6/27/2018 7:55:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	MRA
Chloride	ND	30	mg/Kg	20	6/27/2018 11:57:34 AM	38916
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst	TOM
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	6/27/2018 10:04:03 AM	38909
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	6/27/2018 10:04:03 AM	38909
Surr: DNOP	98.5	70-130	%Rec	1	6/27/2018 10:04:03 AM	38909
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.0	mg/Kg	1	6/27/2018 9:53:54 AM	G52273
Surr: BFB	84.4	15-316	%Rec	1	6/27/2018 9:53:54 AM	G52273
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.020	mg/Kg	1	6/27/2018 9:53:54 AM	B52273
Toluene	ND	0.040	mg/Kg	1	6/27/2018 9:53:54 AM	B52273
Ethylbenzene	ND	0.040	mg/Kg	1	6/27/2018 9:53:54 AM	B52273
Xylenes, Total	ND	0.081	mg/Kg	1	6/27/2018 9:53:54 AM	B52273
Surr: 4-Bromofluorobenzene	97.0	80-120	%Rec	1	6/27/2018 9:53:54 AM	B52273

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
 - S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

29-Jun-18

1806F82

Client:

Blagg Engineering

Project:

GCU 89E

Sample ID MB-38916

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID: **PBS** Batch ID: 38916

RunNo: 52281

Prep Date: 6/27/2018 Analysis Date: 6/27/2018

SeqNo: 1714260 Units: mg/Kg

Analyte

PQL SPK value SPK Ref Val Result

%REC LowLimit

%RPD

Qual

Chloride

ND 1.5

Sample ID LCS-38916

LCSS

SampType: LCS

TestCode: EPA Method 300.0: Anions

HighLimit

RPDLimit

WO#:

Batch ID: 38916

Analysis Date: 6/27/2018

RunNo: 52281 SeqNo: 1714261

Units: mg/Kg

Analyte

Client ID:

Prep Date:

15.00

%REC

%RPD

RPDLimit

Qual

14

1.5

110

Page 3 of 6

В

Е

J

P

RL

90

HighLimit

Chloride

Result

PQL

SPK value SPK Ref Val

0

96.0

LowLimit

Analyte detected in the associated Method Blank

Sample container temperature is out of limit as specified

Analyte detected below quantitation limits

Value above quantitation range

Sample pH Not In Range

Reporting Detection Limit

6/27/2018

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

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Hall Environmental Analysis Laboratory, Inc.

29-Jun-18

1806F82

WO#:

Client:

Blagg Engineering

Project: GCU 89E

Sample ID LCS-38909	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS	Batch	ID: 389	909	R	tunNo: 52	2269				
Prep Date: 6/27/2018	Analysis D	ate: 6/ 2	27/2018	S	SeqNo: 1	713078	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.6	70	130			
Surr: DNOP	4.4		5.000		88.4	70	130			

Sample ID MB-38909	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: PBS	Batch	1D: 38	909	F	RunNo: 5	2269				
Prep Date: 6/27/2018	Analysis D	ate: 6/	27/2018	8	SeqNo: 1	713079	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.2		10.00		92.4	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 4 of 6

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

29-Jun-18

1806F82

WO#:

Client:

Blagg Engineering

Project:

GCU 89E

Sample ID RB

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: **G52273**

RunNo: 52273

Prep Date:

Analysis Date: 6/27/2018

SeqNo: 1713631

Units: mg/Kg

%RPD

%RPD

Analyte

Result ND SPK value SPK Ref Val %REC HighLimit

RPDLimit Qual

Gasoline Range Organics (GRO)

PQL 5.0

15

LowLimit

Surr: BFB

830

1000

83.5

316

Sample ID 2.5UG GRO LCS

SampType: LCS

PQL

RunNo: 52273

TestCode: EPA Method 8015D: Gasoline Range

Client ID: Prep Date:

LCSS

Batch ID: **G52273**

SeqNo: 1713632

Units: mg/Kg

Analyte

Analysis Date: 6/27/2018

Result

SPK value

SPK Ref Val %REC

0

LowLimit 106 75.9 HighLimit

RPDLimit

Qual

Gasoline Range Organics (GRO) Surr: BFB

5.0 25.00

131

27 990

1000

98.6

15

316

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
- **PQL** Practical Quanitative Limit
- % 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
- RLReporting Detection Limit Sample container temperature is out of limit as specified

Page 5 of 6

Hall Environmental Analysis Laboratory, Inc.

29-Jun-18

1806F82

WO#:

Client:

Blagg Engineering

Project: GCU 89E

Sample ID RB	SampT	уре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: PBS	Batch	n ID: B5	2273	R	RunNo: 5	2273				
Prep Date:	Analysis D	Date: 6/	27/2018	S	SeqNo: 1	713652	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		99.9	80	120			

Sample ID 100NG BTEX LC	S Samp	Гуре: LC	s	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batc	h ID: B5	2273	F	RunNo: 5	2273				
Prep Date:	Analysis [Date: 6/	27/2018	S	SeqNo: 1	713653	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	94.6	77.3	128			
Toluene	0.97	0.050	1.000	0	97.1	79.2	125			
Ethylbenzene	0.97	0.050	1.000	0	96.8	80.7	127			
Xylenes, Total	2.9	0.10	3.000	0	98.2	81.6	129			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	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
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 6 of 6



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 Nun	nber: 1806F82		RcptNo:	1
Received By: Completed By:	Anne Thorne Anne Thorne	6/27/2018 7:55:00 6/27/2018 8:03:39		Ame Sh. Ame Sh.	-	
Reviewed By:	ENH	6/27/18		Cline Mr.		
Lapled	by: At 061					
Chain of Cus						
	Custody complete?		Yes 🗸	No 🗆	Not Present	
2. How was the	sample delivered?		Courier			
Log In				_		
Was an atter	npt made to cool the	e samples?	Yes 🗸	No 🗆	NA \square	
4. Were all sam	ples received at a te	emperature of >0° C to 6.0°C	Yes 🗹	No 🗌	na 🗆	
5. Sample(s) in	proper container(s)?	?	Yes 🗹	No 🗌		
6. Sufficient san	nple volume for indic	cated test(s)?	Yes 🗸	No 🗆		
7. Are samples ((except VOA and Of	NG) properly preserved?	Yes 🗹	No 🗌		
8. Was preserva	tive added to bottles	s?	Yes 🗌	No 🗹	NA \square	
9. VOA vials hav	ve zero headspace?		Yes 🗌	No 🗌	No VOA Vials 🗹	
10. Were any sar	mple containers rece	eived broken?	Yes 🗀	No 🗹	# of preserved	
	ork match bottle labe ancies on chain of c		Yes 🗹	No 🗆	bottles checked for pH:	>12 unless noted)
12. Are matrices of	correctly identified or	n Chain of Custody?	Yes 🔽	No 🗆	Adjusted?	<u> </u>
	t analyses were requ		Yes 🗹	No 🗆		
	ng times able to be i ustomer for authoriz		Yes 🗹	No 🗆	Checked by:	
Special Handl	ing (if applicab	<u>(e)</u>				
15. Was client no	tified of all discrepa	ncies with this order?	Yes 🗌	No 🗆	NA 🗹	
Person	Notified:	Date				
By Who		Via:	🗌 eMail 🔲 P	hone 🗌 Fax	☐ In Person	
Regardi						
	nstructions:		· · · · · · · · · · · · · · · · · · ·			
16. Additional rea	marks:					
17. Cooler Infor			9.10 <u>.4</u> 0.11.00.11.00.11.00.11.00.	<u></u>		
Cooler No	Temp ºC Cone 1.4 Good	dition Seal Intact Seal No Yes	Seal Date	Signed By		
1-						

	NALL ENVIKONMENTAL Analysts Labodatody	2	109					(N)		CHLORIDE (×	X									E:6CU89E	alytical report.	
		www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	505-345-4107	uest			(/		AOV) 80828 '-im98) 0728	1								····	<i>ل</i> د	馬名	ed on the an	
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						(1208) s	IMB.	- 36	FTFX + X3T8	X	X							Ren			s possit	
(SAME JAY		Œ				Ą	746 = No		HEAL NO.	102	702							Date Time	126/2018 1548	Date Time	ries. This serves as notice of this	
Time:	KRush_		20 89E			iger:	STEVE MOSKAL	JEFF BLAGE	Temperature:	Preservative Type	7000	٠ اد							_	Mark	Jan	ccredited laborator	
Turn-Around Time:	☐ Standard	Project Name:	6CI	Project #:		Project Manager:	STE	Sampler: 6	Sample Tem	Container Type and #	402×1) 1							Received by:	Musha	Received by:	r ontracted to other a	
Chain-of-Custody Record	ICA	BLAGG ENGINEERING INC.			505-320-1183		☐ Level 4 (Full Validation)	□ Other	The state of the s	trix Sample Request ID	SOIL NE BASE #2019'	NORTH Wall (ENST 2) 5-06 (6-16)							Relinquished by:	Juff Bugg	Relinquished by:	s submitted to Hall Enviro	
-jo	JERI	ENG	ا را		5.					Matrix	လိ	ij							Relinc			sample	_
Shain	Client: BP AMERICA	BiAGG	Mailing Address:		I 1	email or Fax#:	QA/QC Package: X Standard	litation .AP	□ EDD (Type)	Time	1345	1352							Time:	2 1548	Time: 1820	If necessary,	
	Client:		Mailing		Phone #:	email	QA/QC Packa	Accreditation		Date	Borford	¥							Date:	126/2010 1548	Date:	1	



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

July 01, 2018

Steve Moskal
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413

TEL: (505) 632-1199 FAX (505) 632-3903

RE: GCU 89E OrderNo.: 1806G68

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 2 sample(s) on 6/28/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andel

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order **1806G68**

Date Reported: 7/1/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Client Sample ID: BASE CENTER (EAST 1) @ 20'

 Project:
 GCU 89E
 Collection Date: 6/27/2018 1:12:00 PM

 Lab ID:
 1806G68-001
 Matrix: SOIL
 Received Date: 6/28/2018 7:00:00 AM

Analyses	Result	PQL Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	smb
Chloride	ND	30	mg/Kg	20	6/28/2018 11:16:07 AM	38944
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	: AG
Gasoline Range Organics (GRO)	ND	4.0	mg/Kg	1	6/28/2018 10:58:35 AM	A52327
Surr: BFB	111	70-130	%Rec	1	6/28/2018 10:58:35 AM	A52327
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	: Irm
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	6/28/2018 10:41:23 AM	38939
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	6/28/2018 10:41:23 AM	38939
Surr: DNOP	98.8	70-130	%Rec	1	6/28/2018 10:41:23 AM	38939
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	: AG
Benzene	ND	0.020	mg/Kg	1	6/28/2018 10:58:35 AM	R52327
Toluene	ND	0.040	mg/Kg	1	6/28/2018 10:58:35 AM	R52327
Ethylbenzene	ND	0.040	mg/Kg	1	6/28/2018 10:58:35 AM	R52327
Xylenes, Total	ND	0.081	mg/Kg	1	6/28/2018 10:58:35 AM	R52327
Surr: 4-Bromofluorobenzene	124	70-130	%Rec	1	6/28/2018 10:58:35 AM	R52327
Surr: Toluene-d8	97.2	70-130	%Rec	1	6/28/2018 10:58:35 AM	R52327

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report

Lab Order **1806G68**

Client Sample ID: BASE CENTER (EAST 2) @ 20'

Date Reported: 7/1/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

 Project:
 GCU 89E
 Collection Date: 6/27/2018 1:21:00 PM

 Lab ID:
 1806G68-002
 Matrix:
 SOIL
 Received Date: 6/28/2018 7:00:00 AM

PQL Qual Units DF Date Analyzed **Analyses** Result Batch **EPA METHOD 300.0: ANIONS** Analyst: smb Chloride ND 6/28/2018 11:28:31 AM 38944 30 mg/Kg **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: AG 6/28/2018 11:21:47 AM A52327 Gasoline Range Organics (GRO) ND 3.6 mg/Kg 6/28/2018 11:21:47 AM A52327 Surr: BFB 113 70-130 %Rec Analyst: Irm EPA METHOD 8015M/D: DIESEL RANGE ORGANICS 6/28/2018 11:03:37 AM 38939 Diesel Range Organics (DRO) ND 10 mg/Kg Motor Oil Range Organics (MRO) ND 50 6/28/2018 11:03:37 AM 38939 mg/Kg Surr: DNOP %Rec 6/28/2018 11:03:37 AM 98.7 70-130 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: AG Benzene ND 0.018 mg/Kg 6/28/2018 11:21:47 AM R52327 Toluene ND 6/28/2018 11:21:47 AM R52327 0.036 mg/Kg 6/28/2018 11:21:47 AM R52327 Ethylbenzene ND 0.036 mg/Kg 6/28/2018 11:21:47 AM R52327 Xylenes, Total ND 0.073 mg/Kg Surr: 4-Bromofluorobenzene 127 70-130 6/28/2018 11:21:47 AM R52327 %Rec Surr: Toluene-d8 96.5 70-130 6/28/2018 11:21:47 AM R52327 %Rec

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Result

01-Jul-18

1806G68

Client:

Blagg Engineering

Project:

GCU 89E

MB-38944 Sample ID

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID: **PBS**

Batch ID: 38944

RunNo: 52323

Prep Date: 6/28/2018 Analysis Date: 6/28/2018

SeqNo: 1716138 %REC LowLimit

Analyte

PQL SPK value SPK Ref Val

Units: mg/Kg HighLimit

%RPD **RPDLimit**

WO#:

Qual

Chloride

Client ID:

Prep Date:

ND 1.5

Sample ID LCS-38944

LCSS

6/28/2018

SampType: LCS Batch ID: 38944 TestCode: EPA Method 300.0: Anions

LowLimit

RunNo: 52323

SeqNo: 1716139

Units: mg/Kg

%RPD **RPDLimit**

Qual

Analyte

Analysis Date: 6/28/2018 PQL

15

15.00

0

%REC 98.1

90

HighLimit 110

Chloride

1.5

SPK value SPK Ref Val

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

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

Sample container temperature is out of limit as specified

Е Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RLReporting Detection Limit

Page 3 of 6

Hall Environmental Analysis Laboratory, Inc.

1806G68 *01-Jul-18*

WO#:

Client:

Blagg Engineering

Project: GCU 89E

Sample ID MB-38939	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: PBS	Batch	1D: 389	939	R	RunNo: 52	2311				
Prep Date: 6/28/2018	Analysis D	ate: 6/ 2	28/2018	S	SeqNo: 1	714246	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.1		10.00		91.2	70	130			

Sample ID LCS-38939	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID: LCSS	Batch	1D: 38	939	F	RunNo: 5	2311				
Prep Date: 6/28/2018	Analysis D	ate: 6/	28/2018	S	SeqNo: 1	714477	Units: mg/k	ζg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	101	70	130			
Surr: DNOP	4.3		5.000		86.3	70	130			

Qualifiers:

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

Page 4 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#: **1806G68** *01-Jul-18*

Client:

Blagg Engineering

Project: GCU 89E

Sample ID 100ng btex Ics	SampT	ype: LC	S4	Tes	tCode: El	PA Method	8260B: Vola	tiles Short	List	
Client ID: BatchQC	Batcl	n ID: R5	2327	F	RunNo: 5	2327				
Prep Date:	Analysis D	Date: 6/ 2	28/2018	8	SeqNo: 1	714706	Units: mg/k	(g		
Analyte	Result	3 · · · · · · · · · · · · · · · · · · ·								
Benzene	0.99	0.025	1.000	0	99.3	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.7	80	120			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.1	70	130			
Surr: Toluene-d8	0.49	0.49 0.5000 98.5 70 130								

Sample ID rb	Samp	уре: М	BLK	Tes	tCode: El	PA Method	8260B: Vola	tiles Short	List	
Client ID: PBS	Batcl	n ID: R5	2327	F	RunNo: 5	2327				
Prep Date:	Analysis D	Date: 6/	28/2018	\$	SeqNo: 1	714714	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.57		0.5000		114	70	130			
Surr: Toluene-d8	0.50		0.5000		99.7	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 5 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#: **1806G68** *01-Jul-18*

Client:

Blagg Engineering

Project: GCU 89E

Sample ID 2.5ug gro lcs	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015D Mod:	Gasoline	Range	
Client ID: LCSS	Batch	ID: A5	2327	R	RunNo: 5	2327				
Prep Date:	Analysis D	ate: 6/	(g							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	113	70	130			
Surr: BFB	470		500.0		94.4	70	130			

Sample ID rb	SampT	уре: МЕ	BLK	TestCode: EPA Method 8015D Mod: Gasoline Range							
Client ID: PBS	Batch	ID: A5	2327	R	tunNo: 5	2327					
Prep Date:	Analysis D	ate: 6/	28/2018	S	eqNo: 1	714697	Units: mg/K	(g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	ND	5.0									
Surr: BFB	510		500.0		102	70	130				

Qualifiers:

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

Page 6 of 6



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name:	BLAGG	Work Order Number:	180	6G68			RcptNo:	1
Received By:	Anne Thorne	6/28/2018 7:00:00 AM			Anne	A		
Completed By:	Anne Thorne	6/28/2018 7:18:35 AM			Ann. Ann.	1		
Reviewed By:	Ĩ∂.	6/28/18			CAMO	J.C.		
Labeled	by! AT 06/28/11							
Chain of Cus								
1. Is Chain of Cu			Yes	✓	No		Not Present	
2. How was the	sample delivered?		Cou	<u>rier</u>				
Log In			.,		No			
o. vvas an aπem	pt made to cool the samples?		Yes	V	NO	Ш	NA 📙	
4. Were all samp	oles received at a temperature	of >0° C to 6.0°C	Yes	Y	No		na 🗆	
5. Sample(s) in p	proper container(s)?		Yes	✓	No			
6. Sufficient sam	ple volume for indicated test(s)?	Yes	V	No			
7. Are samples (except VOA and ONG) proper	y preserved?	Yes	✓	No			
8. Was preservat	tive added to bottles?		Yes		No	V	na 🗆	
9. VOA vials have	e zero headspace?		Yes		No		No VOA Vials	
10. Were any sam	nple containers received broke	п?	Yes		No	✓	# of preserved bottles checked	
= =	rk match bottle labels? ncies on chain of custody)		Yes	V	No		for pH:	>12 unless noted)
12. Are matrices c	orrectly identified on Chain of	Custody?	Yes	✓	No		Adjusted?	
	analyses were requested?		Yes	V	No	_		
	ng times able to be met? stomer for authorization.)		Yes	✓	No		Checked by:	
Special Handli	ing (if applicable)							
	tified of all discrepancies with	this order?	Yes		No		NA 🗹	
Person I By Who Regardi	m: ng:	Date Via:] eM	ail [] Phone [Fax	☐ In Person	
Client In	structions:							
16. Additional ren	narks:							
17. Cooler Inform	mation							
Cooler No	Temp °C Condition S	management of the state of the	eal D	ate	Signed I	Зу		
1	1.8 Good Yes	.]	

HALL ENVIRONMENTAL	ANALYSIS LABORATORY							(N -	IO Y	() 9	Pir Bubble									
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ינום! ינום!	Client: BP AMERICA	BLAGG	Mailing Address:		Phone #: 505	r Fax#:	QA/QC Package:	itation	۔ اِ إِ	(Type)	Time	1312	1321							Date: Time: 272018 1004 Date: Time:
د	Client:		Mailing		Phone	email or Fax#:	QA/QC Packa	Accreditation		☐ EDD (Type)	Date	421/2018	=							Dake: Variate: The Date:



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

July 23, 2018

Steve Moskal Blagg Engineering P. O. Box 87 Bloomfield, NM 87413

TEL: (505) 632-1199 FAX (505) 632-3903

RE: GCU 89E OrderNo.: 1807A21

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 2 sample(s) on 7/19/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andel

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order **1807A21**

Client Sample ID: NE BASE #3

Date Reported: 7/23/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

 Project:
 GCU 89E
 Collection Date: 7/18/2018 1:12:00 PM

 Lab ID:
 1807A21-001
 Matrix: SOIL
 Received Date: 7/19/2018 7:55:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	SRM
Chloride	41	30	mg/Kg	20	7/19/2018 2:03:26 PM	39295
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: Irm
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	7/19/2018 10:12:17 AM	39290
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	7/19/2018 10:12:17 AM	39290
Surr: DNOP	79.5	70-130	%Rec	1	7/19/2018 10:12:17 AM	39290
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.1	mg/Kg	1	7/19/2018 10:22:18 AM	39265
Surr: BFB	90.0	15-316	%Rec	1	7/19/2018 10:22:18 AM	39265
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.020	mg/Kg	1	7/19/2018 10:22:18 AM	39265
Toluene	ND	0.041	mg/Kg	1	7/19/2018 10:22:18 AM	39265
Ethylbenzene	ND	0.041	mg/Kg	1	7/19/2018 10:22:18 AM	39265
Xylenes, Total	ND	0.081	mg/Kg	1	7/19/2018 10:22:18 AM	39265
Surr: 4-Bromofluorobenzene	99.9	80-120	%Rec	1	7/19/2018 10:22:18 AM	39265

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 5
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report

Lab Order **1807A21**

Date Reported: 7/23/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering **Project:** GCU 89E

Project: GCU 89E **Lab ID:** 1807A21-002

Matrix: SOIL

Collection Date: 7/18/2018 1:25:00 PM

Client Sample ID: NORTH WALL #3

Received Date: 7/19/2018 7:55:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: SRM
Chloride	ND	30	mg/Kg	20	7/19/2018 2:15:51 PM	39295
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: Irm
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	7/19/2018 10:36:40 AM	39290
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	7/19/2018 10:36:40 AM	39290
Surr: DNOP	99.3	70-130	%Rec	1	7/19/2018 10:36:40 AM	39290
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	3.7	mg/Kg	1	7/19/2018 10:45:41 AM	39265
Surr: BFB	91.7	15-316	%Rec	1	7/19/2018 10:45:41 AM	39265
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.018	mg/Kg	1	7/19/2018 10:45:41 AM	39265
Toluene	ND	0.037	mg/Kg	1	7/19/2018 10:45:41 AM	39265
Ethylbenzene	ND	0.037	mg/Kg	1	7/19/2018 10:45:41 AM	39265
Xylenes, Total	ND	0.074	mg/Kg	1	7/19/2018 10:45:41 AM	39265
Surr: 4-Bromofluorobenzene	102	80-120	%Rec	1	7/19/2018 10:45:41 AM	39265

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 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, Inc.

WO#: **1807A21 23-Jul-18**

Client:

Blagg Engineering

Project: GCU 89E

Sample ID MB-39290	SampT	уре: МЕ	BLK	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch	n ID: 39	290	R	RunNo: 5	2826					
Prep Date: 7/19/2018	Analysis D	ate: 7/	19/2018	S	SeqNo: 1	735403	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	11		10.00		109	70	130				
Sample ID LCS-39290	SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics									<u>'</u>	

Sample ID LCS-39290	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS	Batch	ID: 39	290	F	RunNo: 5	2826				
Prep Date: 7/19/2018	Analysis D	ate: 7/	19/2018	S	SeqNo: 1	735404	Units: mg/h	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	10	50.00	0	109	70	130			
Surr: DNOP	5.3		5.000		106	70	130			

Qualifiers:

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

Page 3 of 5

Hall Environmental Analysis Laboratory, Inc.

1807A21 23-Jul-18

WO#:

Client:

Blagg Engineering

Project:

GCU 89E

Surr: BFB 920 1000 91.9 15 316 Sample ID LCS-39265 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS Batch ID: 39265 RunNo: 52822 Prep Date: 7/18/2018 Analysis Date: 7/19/2018 SeqNo: 1736163 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Qual				
Prep Date: 7/18/2018 Analysis Date: 7/19/2018 SeqNo: 1736162 Units: mg/kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Gasoline Range Organics (GRO) ND 5.0 1000 91.9 15 316 <td>Sample ID MB-39265</td> <td>SampType: MBLK</td> <td>TestCode: EPA Method 8015D: Gasoline Range</td> <td></td>	Sample ID MB-39265	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range	
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Gasoline Range Organics (GRO) ND 5.0 92.0 1000 91.9 15 316 <	Client ID: PBS	Batch ID: 39265	RunNo: 52822	
Sample D LCS-39265 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client D LCS-39265 SampType: LCS Satch D 39265 RunNo: 52822	Prep Date: 7/18/2018	Analysis Date: 7/19/2018	SeqNo: 1736162 Units: mg/Kg	
Samp BBB 920 1000 91.9 15 316 Sample ID LCS-39265 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS Batch ID: 39265 RunNo: 52822 Prep Date: 7/18/2018 Analysis Date: 7/19/2018 SeqNo: 1736163 Units: mg/Kg Analyte Result PQL SPK Nation SPK Ref Val AREC LowLimit High Limit MRPD Imit Qual Sample ID MB-39306 Samplype: MBLK TestCode: EPA Method 8015D: Gasoline Range Client ID: PBS Batch ID: 39306 RunNo: 52899 Prep Date: 7/19/2018 Analysis Date: 7/20/2018 SeqNo: 1737983 Units: %RPD RPDLimit Qual Sample ID LCS-39306 Sample ID: 39306 RunNo: 52899 Prep Date: 7/19/2018 Analysis Date: 7/20/2018	Analyte	Result PQL SPK value SP	PK Ref Val %REC LowLimit HighLimit %RPD RPDLi	mit Qual
Samp ID LCS-39265 Samp Type: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS Batch ID: 39265 RunNo: 52822 Prep Date: 7/18/2018 Analysis Date: 7/19/2018 SeqNo: 1736163 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Gasoline Range Organics (GRO) 28 5.0 25.00 0 110 75.9 131 316 100 100 100 101 15 316 100 100 100 101 15 316 100	Gasoline Range Organics (GRO)	ND 5.0		
Client ID: LCSS Batch ID: 39265 RunNo: 52822 Prep Date: 7/18/2018 Analysis Date: 7/19/2018 SeqNo: 1736163 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Gasoline Range Organics (GRO) 28 5.0 25.00 0 110 75.9 131 Surr: BFB 1000 1000 1000 101 15 316 Sample ID MB-39306 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range Client ID: PBS Batch ID: 39306 RunNo: 52899 Prep Date: 7/19/2018 Analysis Date: 7/20/2018 SeqNo: 1737983 Units: %Rec Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Surr: BFB 950 1000 94.8 15 316 Sample ID LCS-39306 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS Batch ID: 39306 RunNo: 52899 Prep Date: 7/19/2018 Analysis Date: 7/20/2018 SeqNo: 1737984 Units: %Rec Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	Surr: BFB	920 1000	91.9 15 316	
Prep Date: 7/18/2018 Analysis Date: 7/19/2018 SeqNo: 1736163 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Gasoline Range Organics (GRO) 28 5.0 25.00 0 110 75.9 131 <td>Sample ID LCS-39265</td> <td>SampType: LCS</td> <td>TestCode: EPA Method 8015D: Gasoline Range</td> <td></td>	Sample ID LCS-39265	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range	
Analyte	Client ID: LCSS	Batch ID: 39265	RunNo: 52822	
Sample ID MB-39306 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range	Prep Date: 7/18/2018	Analysis Date: 7/19/2018	SeqNo: 1736163 Units: mg/Kg	
Surr: BFB 1000 1000 101 15 316 Sample ID MB-39306 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range Client ID: PBS Batch ID: 39306 RunNo: 52899 Prep Date: 7/19/2018 Analysis Date: 7/20/2018 SeqNo: 1737983 Units: %Rec Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Surr: BFB 950 1000 94.8 15 316 TestCode: EPA Method 8015D: Gasoline Range Sample ID LCS-39306 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS Batch ID: 39306 RunNo: 52899 Prep Date: 7/19/2018 Analysis Date: 7/20/2018 SeqNo: 1737984 Units: %Rec Analyte Result PQL SPK value SPK Ref Val %REC LowLimit	Analyte	Result PQL SPK value SP	PK Ref Val %REC LowLimit HighLimit %RPD RPDLi	mit Qual
Sample ID MB-39306 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range Client ID: PBS Batch ID: 39306 RunNo: 52899 Prep Date: 7/19/2018 Analysis Date: 7/20/2018 SeqNo: 1737983 Units: %Rec Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Surr: BFB 950 1000 94.8 15 316 316 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Gasoline Range Client ID: LCSS Batch ID: 39306 RunNo: 52899 Frep Date: 7/19/2018 Analysis Date: 7/20/2018 SeqNo: 1737984 Units: %Rec Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	Gasoline Range Organics (GRO)	28 5.0 25.00	0 110 75.9 131	
Client ID: PBS Batch ID: 39306 RunNo: 52899 Prep Date: 7/19/2018 Analysis Date: 7/20/2018 SeqNo: 1737983 Units: %Rec Analyte	Surr: BFB	1000 1000	101 15 316	
Prep Date: 7/19/2018 Analysis Date: 7/20/2018 SeqNo: 1737983 Units: %Rec Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Surr: BFB 950 1000 94.8 15 316 316 316 5316	Sample ID MB-39306	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range	
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Surr: BFB 950 1000 94.8 15 316<	Client ID: PBS	Batch ID: 39306	RunNo: 52899	
Surr: BFB 950 1000 94.8 15 316 Sample ID LCS-39306 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS Batch ID: 39306 RunNo: 52899 Prep Date: 7/19/2018 Analysis Date: 7/20/2018 SeqNo: 1737984 Units: %Rec Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	Prep Date: 7/19/2018	Analysis Date: 7/20/2018	SeqNo: 1737983 Units: %Rec	
Sample ID LCS-39306 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS Batch ID: 39306 RunNo: 52899 Prep Date: 7/19/2018 Analysis Date: 7/20/2018 SeqNo: 1737984 Units: %Rec Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	Analyte	Result PQL SPK value SP	PK Ref Val %REC LowLimit HighLimit %RPD RPDLi	mit Qual
Client ID: LCSS Batch ID: 39306 RunNo: 52899 Prep Date: 7/19/2018 Analysis Date: 7/20/2018 SeqNo: 1737984 Units: %Rec Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	Surr: BFB	950 1000	94.8 15 316	
Prep Date: 7/19/2018 Analysis Date: 7/20/2018 SeqNo: 1737984 Units: %Rec Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	Sample ID LCS-39306	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range	
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	Client ID: LCSS	Batch ID: 39306	RunNo: 52899	
<u> </u>	Prep Date: 7/19/2018	Analysis Date: 7/20/2018	SeqNo: 1737984 Units: %Rec	
Surr: BFB 1000 1000 104 15 316	Analyte	Result PQL SPK value SP	PK Ref Val %REC LowLimit HighLimit %RPD RPDLi	mit Qual
	Surr: BFB	1000 1000	104 15 316	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 4 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, Inc.

WO#: **1807A21 23-Jul-18**

Client:

Blagg Engineering

Project: GCU 89E

Sample ID MB-39265	SampT	уре: МЕ	BLK	TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch	n ID: 39	265	R	RunNo: 5	2822					
Prep Date: 7/18/2018	Analysis D	Date: 7/	19/2018	S	SeqNo: 1	736178	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	obenzene 1.0 1.000				103	80	120				

Sample ID LCS-39265	Samp	Гуре: LC	S	Tes	tCode: E	tiles				
Client ID: LCSS	Batcl	h ID: 39	265	F	RunNo: 5	2822				
Prep Date: 7/18/2018	Analysis D	Date: 7/	19/2018	S	SeqNo: 1	736179	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	95.2	77.3	128			
Toluene	0.99	0.050	1.000	0	98.6	79.2	125			
Ethylbenzene	0.97	0.050	1.000	0	96.8	80.7	127			
Xylenes, Total	3.0	0.10	3.000	0	98.9	81.6	129			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID MB-39306	SampT	уре: М	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: PBS	Batch	ID: 39	306	F	RunNo: 5	2899				
Prep Date: 7/19/2018	Analysis D	ate: 7/	/20/2018	S	SeqNo: 1	737999	Units: %Red	:		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID LCS-39306	SampT	ype: LC	s	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: LCSS	Batch	ID: 39	306	F	RunNo: 5	2899				
Prep Date: 7/19/2018	Analysis D	ate: 7/	20/2018	S	SeqNo: 1	738000	Units: %Re	С		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		107	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

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

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 Nur	mber: 180	7 A 21			RcptNo	: 1
Received By:	Anne Tho	me	7/19/20	18 7:55:00	a AM		A	1		
-	Anne Tho			18 8:27:33			an	e Sh L		
Completed By:		rne			AM		Ann	e Sh		
Reviewed By:			7/19/	18						
lakeled										
Chain of Cus								_	_	
1. Is Chain of C	ustody comp	lete?			Yes	✓	No	· 🗀	Not Present L	
2. How was the	sample deliv	ered?			<u>Cou</u>	<u>rier</u>				
<u>Log In</u>										
3. Was an atten	not made to c	ool the samples	s?		Yes	~	No		NA 🗆	
		,			, 55					
4. Were all sam	ples received	at a temperatu	re of >0°C	to 6.0°C	Yes	✓	No		NA 🗆	
_		•								
5. Sample(s) in	proper contai	ner(s)?			Yes	✓	No	Ш		
C Sufficient sam	ania valuma f	or indicated toot	(a)3		V	V	No			•
6. Sufficient san	-		• •	-40		▼				
7. Are samples (eny preserve	3Q /	Yes		No No		NA 🗆	
O. vvas preserva	itive added to	DOTTIES?			Yes		NO	V	NA L	
9. VOA vials hav	/e zero heads	pace?			Yes		No		No VOA Vials 🗹	
10. Were any sar	mple containe	ers received bro	ken?		Yes		No	Y	# of preserved	
								_	bottles checked	
11. Does paperwo		tle labels? iin of custody)			Yes	✓	No	\sqcup	for pH: (<2.0	r >12 unless noted)
12. Are matrices			of Custody?		Yes	V	No		Adjusted?	i > 12 dilloss flotody
13. Is it clear wha						✓	No		.	
14. Were all holdi					Yes	✓	No		Checked by:	
(If no, notify c	ustomer for a	uthorization.)						L		
Special Handi	ing (if app	licable)								
15. Was client no	otified of all dis	screpancies wit	h this order?	•	Yes		No		NA 🗹	
Person	Notified:			Date	• I	OSONO MENERALA MENE	PALADALLA DAMANA DANA DANA DANA DANA DANA DANA D	WELL STREET, S.	····	
By Who	P			Via:	iteM:	ail 🗀	Phone	Fax	In Person	
Regard	ing:									
Client II	nstructions:									
16. Additional re	marks:									_1
17 Cooley Info										
17. <u>Cooler Infor</u> Cooler No		Condition	Seal Intact	Seal No	Seal D	ate I	Signed	Bv	İ	
1	1.0	_	es				~13.1A#			
•				4					ı	

MENTAI	ORATORY	al.com	e, NM 87109	345-4107				(N	NO Y)	Chloride	×	×						
HAII ENVIDONMENTAI	ANALYSIS LABORATORY	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107	sis												Sill BP eve Moskal ONEVRM	Ceived by: Color Colors WBS Element: L1-001CT-E:GCU89E Close Colors Color
			4901 F	Tel. 5((O)	IM / OS		<u> </u>) yinO X∃T8 83108 HqT	×	×					Remarks: Bill BP Contact: Steve Moskal	WBS Eleme
	Same Day			:		:		son Velez	oo'	HEAL NO.	102	702						Date Time 07/19/18
ime:	X Rush	GCU 89E				Jer:	Steve Moskal	🍣	0	Preservative Type	Cool	1			5		Liber	am I
Turn-Around Time:	□ Standard	Project Name GCU 89E		Project #:		Project Manager:		Sampler:	On Ice: Temperature:	Arot File 6 Container Type and #	4oz x 1	Ŋ					Received by:	Received by:
Chain-of-Custody Record					1183	jeffcblagg@aol.com / steven.moskal@bpx.com	□ Level 4 (Full Validation)			Sample Request ID	NE BASE #3	North Was #3					Relinquished by:	Utro
f-Cust	rica	Blagg Engineering, Inc.			(505)320-1183	@aol.com / st	Ш	į		Matrix	Soil						Relinquished	Relinduished by:
lain-o	BP America	Blagg Ei	ress:			jeffcblagg(age:			Time	[312]	1325			5- 		Time:	Time: [844
	Client:		Mailing Address:		Phone #:	email or Fax#:	QA/QC Package: X Standard	_ Other _	□ EDD (Type)	Date	8102/81/2	11					7/18/2018	Date: 7/18/18



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

July 25, 2018

Steve Moskal
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL:
FAX

RE: GCU 89E OrderNo.: 1807C17

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 2 sample(s) on 7/24/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

CLIENT: Blagg Engineering

Analytical Report

Lab Order **1807C17**

Date Reported: 7/25/2018

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: NE Base #4

 Project:
 GCU 89E
 Collection Date: 7/23/2018 1:46:00 PM

 Lab ID:
 1807C17-001
 Matrix: MEOH (SOIL)
 Received Date: 7/24/2018 8:34:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: CJS
Chloride	ND	30	mg/Kg	20	7/24/2018 12:11:28 PM	39365
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	: AG
Gasoline Range Organics (GRO)	ND	4.0	mg/Kg	1	7/24/2018 10:31:40 AM	A52932
Surr: BFB	110	70-130	%Rec	1	7/24/2018 10:31:40 AM	A52932
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	: Irm
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	7/24/2018 10:38:13 AM	39364
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	7/24/2018 10:38:13 AM	39364
Surr: DNOP	101	50.6-138	%Rec	1	7/24/2018 10:38:13 AM	39364
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	: AG
Benzene	ND	0.020	mg/Kg	1	7/24/2018 10:31:40 AM	B52932
Toluene	ND	0.040	mg/Kg	1	7/24/2018 10:31:40 AM	B52932
Ethylbenzene	ND	0.040	mg/Kg	1	7/24/2018 10:31:40 AM	B52932
Xylenes, Total	ND	0.081	mg/Kg	1	7/24/2018 10:31:40 AM	B52932
Surr: 4-Bromofluorobenzene	123	70-130	%Rec	1	7/24/2018 10:31:40 AM	B52932
Surr: Toluene-d8	89.3	70-130	%Rec	1	7/24/2018 10:31:40 AM	B52932

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 7
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Qualifiers:

CLIENT: Blagg Engineering

Analytical Report

Lab Order **1807C17**Date Reported: **7/25/2018**

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: South Base #4

 Project:
 GCU 89E
 Collection Date: 7/23/2018 1:56:00 PM

 Lab ID:
 1807C17-002
 Matrix: MEOH (SOIL)
 Received Date: 7/24/2018 8:34:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: CJS
Chloride	ND	30	mg/Kg	20	7/24/2018 12:23:52 PM	39365
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	: AG
Gasoline Range Organics (GRO)	2100	76	mg/Kg	20	7/24/2018 10:54:50 AM	A52932
Surr: BFB	105	70-130	%Rec	20	7/24/2018 10:54:50 AM	A52932
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	: Irm
Diesel Range Organics (DRO)	970	10	mg/Kg	1	7/24/2018 11:46:01 AM	39364
Motor Oil Range Organics (MRO)	280	50	mg/Kg	1	7/24/2018 11:46:01 AM	39364
Surr: DNOP	112	50.6-138	%Rec	1	7/24/2018 11:46:01 AM	39364
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	: AG
Benzene	ND	0.38	mg/Kg	20	7/24/2018 10:54:50 AM	B52932
Toluene	11	0.76	mg/Kg	20	7/24/2018 10:54:50 AM	B52932
Ethylbenzene	3.5	0.76	mg/Kg	20	7/24/2018 10:54:50 AM	B52932
Xylenes, Total	58	1.5	mg/Kg	20	7/24/2018 10:54:50 AM	B52932
Surr: 4-Bromofluorobenzene	116	70-130	%Rec	20	7/24/2018 10:54:50 AM	B52932
Surr: Toluene-d8	97.4	70-130	%Rec	20	7/24/2018 10:54:50 AM	B52932

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

D Sample Diluted Due to Matrix Е Value above quantitation range Analyte detected below quantitation limits Page 2 of 7 Η Holding times for preparation or analysis exceeded J ND Not Detected at the Reporting Limit P Sample pH Not In Range Practical Quanitative Limit Reporting Detection Limit POL RL

Value exceeds Maximum Contaminant Level.

8 % Recovery outside of range due to dilution or matrix W Sample container temperature is out of limit as specified

В

Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory, Inc.

1807C17 25-Jul-18

Client:

Blagg Engineering

Project:

GCU 89E

Sample ID MB-39365

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID: **PBS** Batch ID: 39365

RunNo: 52936

%REC

Prep Date: 7/24/2018 Analysis Date: 7/24/2018

SeqNo: 1740696 Units: mg/Kg LowLimit

Analyte

PQL SPK value SPK Ref Val

%RPD

RPDLimit Qual

Chloride

Client ID:

ND 1.5

Result

Sample ID LCS-39365

LCSS

SampType: LCS

TestCode: EPA Method 300.0: Anions

RunNo: 52936

HighLimit

Prep Date: 7/24/2018

Batch ID: 39365 Analysis Date: 7/24/2018

SeqNo: 1740697

Units: mg/Kg

%RPD **RPDLimit**

WO#:

Qual

Analyte

PQL Result

15.00

%REC

LowLimit 90 HighLimit 110

14 Chloride

1.5

SPK value SPK Ref Val

0

94.0

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

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

Е Value above quantitation range

Reporting Detection Limit

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL

Sample container temperature is out of limit as specified

Page 3 of 7

Hall Environmental Analysis Laboratory, Inc.

1807C17 25-Jul-18

WO#:

Page 4 of 7

Client:

Blagg Engineering

Project:

GCU 89E

Sample ID MB-39364	SampType: MBLK Te	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 39364	RunNo: 52926
Prep Date: 7/24/2018	Analysis Date: 7/24/2018	SeqNo: 1739296 Units: mg/Kg
Analyte	Result PQL SPK value SPK Ref Va	/al %REC LowLimit HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	ND 10	
Motor Oil Range Organics (MRO)	ND 50	
Surr: DNOP	9.2 10.00	92.4 50.6 138
Sample ID LCS-39364	SampType: LCS Te	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 39364	RunNo: 52926
Prep Date: 7/24/2018	Analysis Date: 7/24/2018	SeqNo: 1739306 Units: mg/Kg
Analyte	Result PQL SPK value SPK Ref Va	/al %REC LowLimit HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	47 10 50.00 0	93.4 70 130
Surr: DNOP	4.3 5.000	86.1 50.6 138
Sample ID MB-39346	SampType: MBLK Te	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 39346	RunNo: 52926
Prep Date: 7/23/2018	Analysis Date: 7/24/2018	SeqNo: 1739730 Units: %Rec
Analyte	Result PQL SPK value SPK Ref Va	/al %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	9.3 10.00	93.4 50.6 138
Sample ID LCS-39346	SampType: LCS Te	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 39346	RunNo: 52926
Prep Date: 7/23/2018	Analysis Date: 7/24/2018	SeqNo: 1739734 Units: %Rec
Analyte	Result PQL SPK value SPK Ref Va	/al %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	4.1 5.000	81.8 50.6 138

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

Hall Environmental Analysis Laboratory, Inc.

WO#: **1807C17 25-Jul-18**

Page 5 of 7

Client:

Blagg Engineering

Project: GCU 89E

Sample ID 100ng btex Ics	Samp	SampType: LCS4 TestCode: EPA Method 8260B: Volatiles Short List										
Client ID: BatchQC	Batc	h ID: B5	2932	F	RunNo: 5	2932						
Prep Date:	Analysis [Date: 7/	24/2018	8	SeqNo: 1	739552	Units: mg/l	(g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	1.0	0.025	1.000	0	99.9	80	120					
Toluene	1.0	0.050	1.000	0	103	80	120					
Ethylbenzene	1.0	0.050	1.000	0	102	80	120					
Xylenes, Total	3.0	0.10	3.000	0	99.8	80	120					
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.1	70	130					
Surr: Toluene-d8	0.46		0.5000		92.9	70	130					
Sample ID rb	Samp	SampType: MBLK TestCode: EPA Method 8260B: Volatiles Short List										
Client ID: PBS	Batc	th ID: B52932 RunNo: 52932										

Sample ID rb	Sampl	ype: ME	BLK	les	tCode: El	PA Method	8260B: Volat	iles Short	List	
Client ID: PBS	Batcl	h ID: B5	2932	F	RunNo: 5	2932				
Prep Date:	Analysis D	Date: 7/	24/2018	5	SeqNo: 1	739556	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.56		0.5000		111	70	130			
Surr: Toluene-d8	0.46		0.5000		92.7	70	130			

Sample ID 1807c17-002ams	SampT	ype: MS	64	Tes	tCode: El	PA Method	8260B: Vola	tiles Short	List	
Client ID: South Base #4	Batch	1D: B5	2932	F	RunNo: 5	2932				
Prep Date:	Analysis D	ate: 7/	24/2018	8	SeqNo: 1	740161	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	15	0.38	15.29	0.2096	95.4	80	120			
Toluene	26	0.76	15.29	11.40	97.1	80	120			
Ethylbenzene	19	0.76	15.29	3.474	104	82	121			
Xylenes, Total	100	1.5	45.87	57.71	91.5	80.2	120			
Surr: 4-Bromofluorobenzene	8.0		7.645		104	70	130			
Surr: Toluene-d8	7.2		7.645		94.4	70	130			

Sample ID 1807c17-002amsc	I SampT	ype: MS	SD4	TestCode: EPA Method 8260B: Volatiles Short List							
Client ID: South Base #4	Batch	1D: B5	2932	F	RunNo: 5	2932					
Prep Date:	Analysis D	ate: 7/	24/2018	S	SeqNo: 1	740162	Units: mg/K	(g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	15	0.38	15.29	0.2096	95.9	80	120	0.509	20		
Toluene	26	0.76	15.29	11.40	93.2	80	120	2.30	20		
Ethylbenzene	19	0.76	15.29	3.474	102	82	121	1.86	20		
Xylenes, Total	98	1.5	45.87	57.71	88.9	80.2	120	1.22	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

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

1807C17 25-Jul-18

WO#:

Client:

Blagg Engineering

Project:

GCU 89E

TestCode: EPA Method 8260B: Volatiles Short List SampType: MSD4

Sample ID 1807c17-002amsd Client ID: South Base #4

Batch ID: **B52932**

RunNo: 52932

Prep Date: SeqNo: 1740162 Analysis Date: 7/24/2018 Units: mg/Kg

Analyte	Result	PQL	SPK value SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	8.1		7.645	105	70	130	0	0	
Surr: Toluene-d8	7.4		7.645	96.5	70	130	0	0	

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded Η

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank В

Е Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RLReporting Detection Limit

Sample container temperature is out of limit as specified

Page 6 of 7

Hall Environmental Analysis Laboratory, Inc.

25-Jul-18

1807C17

WO#:

Client:

Blagg Engineering

Project: GCU 89E

Sample ID 2.5ug gro lcs	SampT	SampType: LCS TestCode: EPA Method 8015D Mod: Gasoline Range										
Client ID: LCSS	Batch	n ID: A5	2932	F	RunNo: 5	2932						
Prep Date:	Analysis D	ate: 7/	24/2018	S	SeqNo: 1	739521	Units: mg/h	(g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	70	130					
Surr: BFB	470		500.0		94.5	70	130					
Sample ID rb	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015D Mod:	Gasoline	Range			
Client ID: PBS	Batch	n ID: A5	2932	F	RunNo: 5	2932						

Campic ID ID	Campi	ypc. WL	LIX	100	resteede. Li A metriod 0013D mod. Casonile Range								
Client ID: PBS	Batch	1D: A5	2932	R	RunNo: 5								
Prep Date:	Analysis D	ate: 7/	24/2018	S	SeqNo: 1	739522	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	500		500.0		99.1	70	130						

Sample ID 1807c17-001an	ns SampT	уре: М	3	TestCode: EPA Method 8015D Mod: Gasoline Range									
Client ID: NE Base #4	Batcl	n ID: A5	2932	F	RunNo: 5	2932							
Prep Date:	Analysis D	Date: 7/	24/2018	S	SeqNo: 1	740158	Units: mg/k	(g					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Gasoline Range Organics (GRO)	21	4.0	20.21	0	102	64.7	142						
Surr: BFB	410		404.2		101	70	130						

Sample ID 1807c17-001ams	sd Samp	Type: MS	SD	TestCode: EPA Method 8015D Mod: Gasoline Range									
Client ID: NE Base #4	Bato	h ID: A5	2932	F	RunNo: 5	2932							
Prep Date:	Analysis	Date: 7/	/24/2018	8	SeqNo: 1	740159	Units: mg/k	(g					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Gasoline Range Organics (GRO)	20	4.0	20.21	0	101	64.7	142	1.30	20				
Surr: BFB	400		404.2		100	70	130	0	0				

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 7 of 7

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified



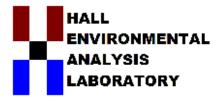
Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Bl	LAGG	Work Order !	lumber: 1807C17		RcptNo:	1
Received By:	saiah Ortiz	7/2 4/ 2018 8:34	:00 AM	I abe	-	
Completed By: A	Ashley Gallego	s 7/24/2018 8:48		A		
Reviewed By:	P	07/24/18	labeled	by:.	ENM 7/2	1/18
Chain of Custo	<u>dy</u>					
1. Is Chain of Custo	ody complete?		Yes 🗹	No 🗌	Not Present	
2. How was the sar	mple delivered?		<u>Courier</u>			
Log In			· 🗖	No 🗆	NA 🗔	
3. Was an attempt	made to cool th	e samples?	Yes 🗹	No 📙	NA L	
4. Were all samples	received at a to	emperature of >0° C to 6.0°C	Yes 🗸	No 🗆	NA 🗀	
5. Sample(s) in prop	per container(s)	?	Yes 🔽	No 🗌		
6. Sufficient sample	volume for indi	cated test(s)?	Yes 🗹	No 🗌		
7. Are samples (exc	ept VOA and O	NG) properly preserved?	Yes 🗸	No 🗆		
8. Was preservative	added to bottle	s?	Yes	No 🔽	NA 🗆	
9. VOA vials have ze	ero headspace?	,	Yes 🗌	No 🗆	No VOA Vials 🗹	
10. Were any sample	e containers rec	eived broken?	Yes 🗀	No 🗹	# of preserved	
11. Does paperwork r (Note discrepanci			Yes 🗸	No 🗆	bottles checked for pH:	12 unless noted)
12. Are matrices corre	ectly identified o	on Chain of Custody?	Yes 🗸	No 🗆	Adjusted?	
13. Is it clear what an	alyses were rec	uested?	Yes 🗹	No 🗌	Y	
 Were all holding t (If no, notify custo 			Yes 🗹	No 🗌	Checked by:	
Special Handling		•				
		ancies with this order?	Yes	No 🗆	NA 🗹	
Person Not	tified:		ate:			
By Whom:		V	ia: eMail Pho	one 🗌 Fax	In Person	
Regarding:						
Client Instru	uctions:					
16. Additional remar	ks:					
17. Cooler Informat		ndition Seal Intact Seal N	o Seal Date S	igned By		
1 2.			v osa pate s			

	_ <u>}</u>	:						•	()	or N	人)	Pir Bubbles								-		
	ATOR		W 87109	4107					<u> </u>		-	Chloride	×	X	_							
	ANAL ENVIRONMENTAL ANALYSIS TABORATORY	www.hallenvironmental.com	4901 Hawkins NE - Albuquergue, NM 87109	Fax 505-345-4107	equest																	;U89E
	LYSTS	v.hallenvird	TE - Albuc	975 Fa	ysis																_	WBS Element: L1-001CT-E:GCU89E
	ANA	MM	Hawkins N	Tel. 505-345-3975	A		LALL		· ·	<u> </u>	<u></u>	701001111		3/						Bill BP	VHIXONEVRM	ent: L1-00
			4901	<u>1</u>			3VV /					VINO X3T8		X						Remarks: Bill BP Contact: Steve Moskal	VID: VHI)	NBS Elem
	Same Day								son Velez	No.		HEAL NO.	100-	005				, k	4	Date Time F	Jimo C	8 6834
ıme:	X Rush	GCU 89E				jer.	Steve Moskal		Jeff Blagg/Nelson Velez		verature: 7.3	ative Tike	Cool	11	:						MAG	Condice
urn-Aroung 11me	□ Standard	Project Name GCU 89E		Project #:		Project Manager:			pler:	On Ice:	Sample Temperature:	Container Type and #	4oz x 1	12			į			Received by:	Peceived by:	101
Chain-of-Custody Record		Inc.			1183	jeffcblagg@aol.com / steven.moskal@bpx.com		□ Level 4 (Full Validation)	The state of the s			Sample Request ID	NE BASE # 4	SOUTH BASE #4						7		the Male
t-Cust	rica	Blagg Engineering, Inc.			(505)320-1183	Baol.com / st		LJ				Matrix	Soil	8						Relinquished by:	Mindiished by	Mo
ain-o	BP America	Blagg Er	ress:			jeffcblagg(age:)ee)		Time	18 1346	1356						$\top \nabla$	Time:	
	Client:		Mailing Address:		Phone #:	email or Fax#:	QA/QC Package:	X Standard	□ Other	☐ EDD (Type)		Date	7/23/18	1/						Date:	Date:	7/23/18



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

July 30, 2018

Steve Moskal Blagg Engineering

P. O. Box 87

Bloomfield, NM 87413

TEL: (505) 632-1199 FAX (505) 632-3903

RE: GCU 89E OrderNo.: 1807D68

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 7 sample(s) on 7/26/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order **1807D68**

Date Reported: 7/30/2018

Hall Environmental Analysis Laboratory, Inc.

 CLIENT:
 Blagg Engineering
 Client Sample ID: SEC BASE @ 20' (4-pt)

 Project:
 GCU 89E
 Collection Date: 7/25/2018 1:16:00 PM

 Lab ID:
 1807D68-001
 Matrix:
 SOIL
 Received Date: 7/26/2018 7:00:00 AM

Analyses	Result	PQL Q	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JRR
Chloride	ND	30	mg/Kg	20	7/26/2018 10:40:44 AM	39427
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	: AG
Gasoline Range Organics (GRO)	ND	3.7	mg/Kg	1	7/26/2018 10:38:09 AM	A53000
Surr: BFB	115	70-130	%Rec	1	7/26/2018 10:38:09 AM	A53000
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	: Irm
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	7/26/2018 9:54:13 AM	39422
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	7/26/2018 9:54:13 AM	39422
Surr: DNOP	88.0	50.6-138	%Rec	1	7/26/2018 9:54:13 AM	39422
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	: AG
Benzene	ND	0.018	mg/Kg	1	7/26/2018 10:38:09 AM	B53000
Toluene	ND	0.037	mg/Kg	1	7/26/2018 10:38:09 AM	B53000
Ethylbenzene	ND	0.037	mg/Kg	1	7/26/2018 10:38:09 AM	B53000
Xylenes, Total	ND	0.074	mg/Kg	1	7/26/2018 10:38:09 AM	B53000
Surr: 4-Bromofluorobenzene	129	70-130	%Rec	1	7/26/2018 10:38:09 AM	B53000
Surr: Toluene-d8	88.3	70-130	%Rec	1	7/26/2018 10:38:09 AM	B53000

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 12
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order **1807D68**

Date Reported: 7/30/2018

Hall Environmental Analysis Laboratory, Inc.

 CLIENT:
 Blagg Engineering
 Client Sample ID: EAST BASE @ 20' (3-pt)

 Project:
 GCU 89E
 Collection Date: 7/25/2018 1:20:00 PM

 Lab ID:
 1807D68-002
 Matrix: SOIL
 Received Date: 7/26/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	:: JRR
Chloride	ND	30		mg/Kg	20	7/26/2018 10:53:09 AM	39427
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst	: AG
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	7/26/2018 11:01:17 AM	A53000
Surr: BFB	116	70-130		%Rec	1	7/26/2018 11:01:17 AM	A53000
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS					Analyst	:: Irm
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/26/2018 10:16:10 AM	39422
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/26/2018 10:16:10 AM	39422
Surr: DNOP	87.4	50.6-138		%Rec	1	7/26/2018 10:16:10 AM	39422
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst	: AG
Benzene	ND	0.019		mg/Kg	1	7/26/2018 11:01:17 AM	B53000
Toluene	ND	0.038		mg/Kg	1	7/26/2018 11:01:17 AM	B53000
Ethylbenzene	ND	0.038		mg/Kg	1	7/26/2018 11:01:17 AM	B53000
Xylenes, Total	ND	0.076		mg/Kg	1	7/26/2018 11:01:17 AM	B53000
Surr: 4-Bromofluorobenzene	131	70-130	S	%Rec	1	7/26/2018 11:01:17 AM	B53000
Surr: Toluene-d8	89.9	70-130		%Rec	1	7/26/2018 11:01:17 AM	B53000

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
 - S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 12
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order **1807D68**

Date Reported: 7/30/2018

Hall Environmental Analysis Laboratory, Inc.

 CLIENT:
 Blagg Engineering
 Client Sample ID: S/SEC-SW @ 5'-18' (6-pt)

 Project:
 GCU 89E
 Collection Date: 7/25/2018 1:29:00 PM

 Lab ID:
 1807D68-003
 Matrix: SOIL
 Received Date: 7/26/2018 7:00:00 AM

Analyses	Result	PQL (Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JRR
Chloride	270	30	mg/Kg	20	7/26/2018 11:05:34 AM	39427
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	: AG
Gasoline Range Organics (GRO)	ND	4.0	mg/Kg	1	7/26/2018 11:24:23 AM	A53000
Surr: BFB	115	70-130	%Rec	1	7/26/2018 11:24:23 AM	A53000
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	: Irm
Diesel Range Organics (DRO)	ND	9.2	mg/Kg	1	7/26/2018 10:38:16 AM	39422
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	7/26/2018 10:38:16 AM	39422
Surr: DNOP	87.6	50.6-138	%Rec	1	7/26/2018 10:38:16 AM	39422
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	: AG
Benzene	ND	0.020	mg/Kg	1	7/26/2018 11:24:23 AM	B53000
Toluene	ND	0.040	mg/Kg	1	7/26/2018 11:24:23 AM	B53000
Ethylbenzene	ND	0.040	mg/Kg	1	7/26/2018 11:24:23 AM	B53000
Xylenes, Total	ND	0.079	mg/Kg	1	7/26/2018 11:24:23 AM	B53000
Surr: 4-Bromofluorobenzene	128	70-130	%Rec	1	7/26/2018 11:24:23 AM	B53000
Surr: Toluene-d8	91.4	70-130	%Rec	1	7/26/2018 11:24:23 AM	B53000

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 12
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order **1807D68**

Date Reported: 7/30/2018

Hall Environmental Analysis Laboratory, Inc.

 CLIENT:
 Blagg Engineering
 Client Sample ID: E/SEC-SW @ 5'-18' (5-pt)

 Project:
 GCU 89E
 Collection Date: 7/25/2018 1:34:00 PM

 Lab ID:
 1807D68-004
 Matrix:
 SOIL
 Received Date: 7/26/2018 7:00:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JRR
Chloride	64	30	mg/Kg	20	7/26/2018 11:17:59 AM	39427
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	: AG
Gasoline Range Organics (GRO)	ND	4.3	mg/Kg	1	7/26/2018 11:47:41 AM	A53000
Surr: BFB	114	70-130	%Rec	1	7/26/2018 11:47:41 AM	A53000
EPA METHOD 8015M/D: DIESEL RANGE ORGAI	NICS				Analyst	: Irm
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	7/26/2018 11:00:17 AM	39422
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	7/26/2018 11:00:17 AM	39422
Surr: DNOP	91.9	50.6-138	%Rec	1	7/26/2018 11:00:17 AM	39422
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	: AG
Benzene	ND	0.022	mg/Kg	1	7/26/2018 11:47:41 AM	B53000
Toluene	ND	0.043	mg/Kg	1	7/26/2018 11:47:41 AM	B53000
Ethylbenzene	ND	0.043	mg/Kg	1	7/26/2018 11:47:41 AM	B53000
Xylenes, Total	ND	0.086	mg/Kg	1	7/26/2018 11:47:41 AM	B53000
Surr: 4-Bromofluorobenzene	128	70-130	%Rec	1	7/26/2018 11:47:41 AM	B53000
Surr: Toluene-d8	91.3	70-130	%Rec	1	7/26/2018 11:47:41 AM	B53000

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 4 of 12
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order **1807D68**

Date Reported: 7/30/2018

Hall Environmental Analysis Laboratory, Inc.

 CLIENT:
 Blagg Engineering
 Client Sample ID: EAST-SW @ 6'-18' (5-pt)

 Project:
 GCU 89E
 Collection Date: 7/25/2018 1:40:00 PM

 Lab ID:
 1807D68-005
 Matrix: SOIL
 Received Date: 7/26/2018 7:00:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JRR
Chloride	38	30	mg/Kg	20	7/26/2018 11:30:24 AM	39427
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	: AG
Gasoline Range Organics (GRO)	ND	4.1	mg/Kg	1	7/26/2018 12:10:55 PM	A53000
Surr: BFB	112	70-130	%Rec	1	7/26/2018 12:10:55 PM	A53000
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	: Irm
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	7/26/2018 11:22:19 AM	39422
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	7/26/2018 11:22:19 AM	39422
Surr: DNOP	88.3	50.6-138	%Rec	1	7/26/2018 11:22:19 AM	39422
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	: AG
Benzene	ND	0.020	mg/Kg	1	7/26/2018 12:10:55 PM	B53000
Toluene	ND	0.041	mg/Kg	1	7/26/2018 12:10:55 PM	B53000
Ethylbenzene	ND	0.041	mg/Kg	1	7/26/2018 12:10:55 PM	B53000
Xylenes, Total	ND	0.081	mg/Kg	1	7/26/2018 12:10:55 PM	B53000
Surr: 4-Bromofluorobenzene	126	70-130	%Rec	1	7/26/2018 12:10:55 PM	B53000
Surr: Toluene-d8	90.8	70-130	%Rec	1	7/26/2018 12:10:55 PM	B53000

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

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 5 of 12
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Qualifiers:

Analytical Report

Lab Order 1807D68

Date Reported: 7/30/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering **Client Sample ID:** N/NEC-SW @ 5'-17' (3-pt) **Project:** GCU 89E **Collection Date:** 7/25/2018 2:22:00 PM 1807D68-006 Lab ID: Matrix: SOIL Received Date: 7/26/2018 7:00:00 AM

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JRR
Chloride	ND	30	mg/Kg	20	7/26/2018 11:42:48 AM	39427
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	: AG
Gasoline Range Organics (GRO)	ND	4.2	mg/Kg	1	7/26/2018 12:34:12 PM	A53000
Surr: BFB	113	70-130	%Rec	1	7/26/2018 12:34:12 PM	A53000
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	: Irm
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	7/26/2018 11:44:18 AM	39422
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	7/26/2018 11:44:18 AM	39422
Surr: DNOP	91.8	50.6-138	%Rec	1	7/26/2018 11:44:18 AM	39422
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	: AG
Benzene	ND	0.021	mg/Kg	1	7/26/2018 12:34:12 PM	B53000
Toluene	ND	0.042	mg/Kg	1	7/26/2018 12:34:12 PM	B53000
Ethylbenzene	ND	0.042	mg/Kg	1	7/26/2018 12:34:12 PM	B53000
Xylenes, Total	ND	0.084	mg/Kg	1	7/26/2018 12:34:12 PM	B53000
Surr: 4-Bromofluorobenzene	126	70-130	%Rec	1	7/26/2018 12:34:12 PM	B53000
Surr: Toluene-d8	90.2	70-130	%Rec	1	7/26/2018 12:34:12 PM	B53000

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

Analyte detected in the associated Method Blank D Sample Diluted Due to Matrix Е Value above quantitation range Analyte detected below quantitation limits Page 6 of 12 Η Holding times for preparation or analysis exceeded J ND Not Detected at the Reporting Limit P Sample pH Not In Range POL

Practical Quanitative Limit Reporting Detection Limit RL

Value exceeds Maximum Contaminant Level.

% Recovery outside of range due to dilution or matrix Sample container temperature is out of limit as specified

В

Lab Order **1807D68**

Date Reported: 7/30/2018

Hall Environmental Analysis Laboratory, Inc.

 CLIENT:
 Blagg Engineering
 Client Sample ID: E/NEC-SW @ 5'-17' (3-pt)

 Project:
 GCU 89E
 Collection Date: 7/25/2018 2:27:00 PM

 Lab ID:
 1807D68-007
 Matrix:
 SOIL
 Received Date: 7/26/2018 7:00:00 AM

Analyses	Result	PQL (Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JRR
Chloride	ND	30	mg/Kg	20	7/26/2018 11:55:13 AM	39427
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	: AG
Gasoline Range Organics (GRO)	98	20	mg/Kg	5	7/26/2018 12:57:33 PM	A53000
Surr: BFB	108	70-130	%Rec	5	7/26/2018 12:57:33 PM	A53000
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	: Irm
Diesel Range Organics (DRO)	38	9.9	mg/Kg	1	7/26/2018 12:06:26 PM	39422
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	7/26/2018 12:06:26 PM	39422
Surr: DNOP	96.1	50.6-138	%Rec	1	7/26/2018 12:06:26 PM	39422
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	: AG
Benzene	ND	0.10	mg/Kg	5	7/26/2018 12:57:33 PM	B53000
Toluene	ND	0.20	mg/Kg	5	7/26/2018 12:57:33 PM	B53000
Ethylbenzene	0.22	0.20	mg/Kg	5	7/26/2018 12:57:33 PM	B53000
Xylenes, Total	1.9	0.41	mg/Kg	5	7/26/2018 12:57:33 PM	B53000
Surr: 4-Bromofluorobenzene	120	70-130	%Rec	5	7/26/2018 12:57:33 PM	B53000
Surr: Toluene-d8	94.8	70-130	%Rec	5	7/26/2018 12:57:33 PM	B53000

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 7 of 12
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Result

WO#: 1807D68 30-Jul-18

Client:

Blagg Engineering

Project:

GCU 89E

Sample ID MB-39427

SampType: MBLK

TestCode: EPA Method 300.0: Anions

LowLimit

Client ID: **PBS** Batch ID: 39427

RunNo: 52996

Prep Date: 7/26/2018

Analysis Date: 7/26/2018 PQL

SeqNo: 1743207

Units: mg/Kg

HighLimit

%RPD **RPDLimit**

Qual

Analyte Chloride

ND 1.5

Sample ID LCS-39427

SampType: LCS

%REC

TestCode: EPA Method 300.0: Anions

Client ID: **LCSS** Prep Date: 7/26/2018

Batch ID: 39427 Analysis Date: 7/26/2018 RunNo: 52996 SeqNo: 1743208

Units: mg/Kg

PQL Result

0

110

%RPD

SPK value SPK Ref Val 1.5

Qual

Chloride

15.00

Analyte

90

RPDLimit

14

SPK value SPK Ref Val

%REC 95.3

LowLimit

HighLimit

Qualifiers:

Н

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

ND Not Detected at the Reporting Limit **PQL** Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Holding times for preparation or analysis exceeded

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

RLReporting Detection Limit Sample container temperature is out of limit as specified Page 8 of 12

Hall Environmental Analysis Laboratory, Inc.

WO#: **1807D68** 30-Jul-18

Client:

Blagg Engineering

Project: GCU 89E

Sample ID MB-39422	SampT	уре: МЕ	BLK	TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batcl	422	F	RunNo: 5	2984					
Prep Date: 7/26/2018	Analysis D	Date: 7/	26/2018	S	SeqNo: 1	741732	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.8		10.00		88.4	50.6	138			
Sample ID I CS-39422	SamnT	SampType: LCS TestCode: FPA Method 8015M/D: Diesel Range Organics								

Sample ID LCS-39422	SampT	ype: LC	s	Tes	estCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch	Batch ID: 39422 RunNo: 52984									
Prep Date: 7/26/2018	Analysis D	ate: 7/	26/2018	SeqNo: 1741733			Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	46	10	50.00	0	92.1	70	130				
Surr: DNOP	4.3		5.000		86.1	50.6	138				

Qualifiers:

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

Page 9 of 12

Hall Environmental Analysis Laboratory, Inc.

WO#: **1807D68** 30-Jul-18

Client:

Blagg Engineering

Project: GCU 89E

Sample ID 100ng btex Ics	SampType: LCS4 TestCode: EPA Method 8260B: Volatiles Short List									
Client ID: BatchQC	Batch	Batch ID: B53000 RunNo: 53000								
Prep Date:	Analysis D	oate: 7/	/26/2018 SeqNo: 1742323 Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	105	80	120			
Toluene	1.1	0.050	1.000	0	110	80	120			
Ethylbenzene	1.1	0.050	1.000	0	111	80	120			
Xylenes, Total	3.2	0.10	3.000	0	107	80	120			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.1	70	130			
Surr: Toluene-d8	0.46		0.5000		91.3	70	130			

Sample ID rb	Samp	уре: МЕ	BLK	Tes	8260B: Vola	iles Short	List			
Client ID: PBS	Batcl	n ID: B5	3000	F	RunNo: 53000					
Prep Date:	Analysis D	Date: 7/	26/2018	5	SeqNo: 1742331 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	0.58		0.5000		116	70	130			
Surr: Toluene-d8	0.46		0.5000		93.0	70	130			

Sample ID 1807d68-002ams	SampT	SampType: MS4 TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: EAST BASE @ 2	0' (Batch	1D: B5	3000	RunNo: 53000						
Prep Date:	SeqNo: 1742552 Units: mg/Kg				(g					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.72	0.019	0.7553	0	95.0	80	120			
Toluene	0.74	0.038	0.7553	0.005491	96.7	80	120			
Ethylbenzene	0.74	0.038	0.7553	0	98.3	82	121			
Xylenes, Total	2.4	0.076	2.266	0.03591	103	80.2	120			
Surr: 4-Bromofluorobenzene	0.39		0.3776		104	70	130			
Surr: Toluene-d8	0.32		0.3776		85.9	70	130			

Sample ID 1807d68-002ams	d SampT	уре: М\$	SD4	TestCode: EPA Method 8260B: Volatiles Short List						
Client ID: EAST BASE @ 20	D' (Batch	n ID: B5	3000	RunNo: 53000						
Prep Date:	Analysis D	Date: 7/	26/2018	8	SeqNo: 1	742553	Units: mg/k	ζg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.70	0.019	0.7553	0	92.2	80	120	2.99	20	
Toluene	0.73	0.038	0.7553	0.005491	95.6	80	120	1.12	20	
Ethylbenzene	0.74	0.038	0.7553	0	97.8	82	121	0.483	20	
Xylenes, Total	2.4	0.076	2.266	0.03591	102	80.2	120	0.766	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

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 10 of 12

Hall Environmental Analysis Laboratory, Inc.

WO#: **1807D68** 30-Jul-18

Client:

Blagg Engineering

Project: GCU 89E

Sample ID 1807d68-002amsd SampType: MSD4 TestCode: EPA Method 8260B: Volatiles Short List

Client ID: EAST BASE @ 20' (Batch ID: B53000 RunNo: 53000

Prep Date: Analysis Date: 7/26/2018 SeqNo: 1742553 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.41		0.3776		108	70	130	0	0	
Surr: Toluene-d8	0.33		0.3776		86.6	70	130	0	0	

Qualifiers:

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

Page 11 of 12

Hall Environmental Analysis Laboratory, Inc.

WO#: **1807D68** 30-Jul-18

Client:

Blagg Engineering

Project: GCU 89E

Sample ID 2.5ug gro lcs	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015D Mod:	Gasoline	Range			
Client ID: LCSS	Batch	n ID: A5	3000	R	RunNo: 5 :	3000						
Prep Date:	Analysis D	ate: 7/	26/2018	S	SeqNo: 1	742320	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	70	130					
Surr: BFB	460		500.0		93.0	70	130					

Sample ID rb	SampT	уре: МЕ	BLK	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: PBS	Batch	ID: A5	3000	R	tunNo: 5	3000						
Prep Date:	Analysis D	ate: 7/	26/2018	S	SeqNo: 1	742321	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	520		500.0		104	70	130					

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 12 of 12



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 Numb	per: 1807D	68		RcptNe	o: 1
Received By: Anne Thome	7/26/20	18 7:00:00 A	AM.	an		<u> </u>	
Completed By: Anne Thorne	7/26/20	18 7:38:47 A	AM	Den	1.		
Reviewed By:	7/26/	18		0,174		_	
Labeled by: A 0							
Chain of Custody							
1. Is Chain of Custody complete	?		Yes 🛚	Z No		Not Present	
2. How was the sample delivered	1?		Courie				
l am in							
Log In 3. Was an attempt made to cool	the samples?		Yes 💌	, No		NA 🗆	
- Trad dir dicempt made to door	and campion.		100 =		_		
4. Were all samples received at a	a temperature of >0° C	to 6.0°C	Yes 💌	• No		NA 🗆	
_	•			-			
5. Sample(s) in proper container	(s)?		Yes 🛂	<u>ľ</u> No			
6. Sufficient sample volume for in	dicated test(s)?		Yes ⊻	No.			
7. Are samples (except VOA and		ed?	Yes 🗸	_			
8. Was preservative added to bot			Yes] No	✓	NA 🗆	
			<u></u>	_	_	_	
9. VOA vials have zero headspace			Yes	No		No VOA Vials 🗹	
10. Were any sample containers r	eceived broken?		Yes _	No No		# of preserved	
11. Does paperwork match bottle I	ahole?		Yes ✓	. No		bottles checked for pH:	
(Note discrepancies on chain of			165 🗷	, 110		<u> </u>	or >12 unless noted)
12. Are matrices correctly identified	d on Chain of Custody?		Yes 🗸	No No		Adjusted?	
13. Is it clear what analyses were i	requested?		Yes 🗹	=			
Were all holding times able to (If no, notify customer for author)			Yes 🗹	No No	Ц	Checked by:	
	•						
<u>Special Handling (if applic</u>	<u>able)</u>		_	_	_	_	
15. Was client notified of all discre	epancies with this order?	?	Yes	No No		NA 🗹	\neg
Person Notified:		Date					
By Whom:		Via:	eMail	Phone] Fax	☐ In Person	
Regarding:							
Client Instructions:							
16. Additional remarks:							
17. Cooler Information							
1	ondition Seal Intact	Seal No	Seal Date	Signed	Ву		
1 1.7 Go	od Yes						
	od Yes						
3 1.7 Go	od Yes						

Tura-Around Time:	X Rush Same Day	GCU 89E	4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107	ysis		Steve Moskal	/OE	la /	(IZI)	9)	Preservative HEAL No. Only BTEX ONLY	x x x) 022 loo0	292	83	1	745	70%				
☐ Standard Project Name	ect Name	,		Project #:		Project Manager	S		Sampler: Jo	:es:	ple Tempe	Container P	4oz x 1			ا معاللون <u>و پسر</u>	- 1 V-	jagor hay "				
		Proj		Proj		Proj		on)	Sarr	On Ce	San		-	-Pt	(+0+)	(5-pt)	, (s-ρt.)	-pt)	-pt)			
Chain-or-Custody Record		, Inc.			1183	leffcblagg@aol.com / steven.moskal@bpx.com		□ Level 4 (Full Validation)				Sample Request ID	SEC BASE @ 20 (4-4)	Enst Brote 20 16-96	5/SEC-5WES-18 (6-0+	=/sec-swes-18(5-0th	eAST-543@6-18'(5-	NMEC-5WE5-17 (3-Pt.	EINFE-542 E5-17 (3-Pt.			
このロン・	rica	Blagg Engineering, Inc.			(505)320-1183	2aol.com / st						Matrix	Soil			4/	*		7			
alli-O	BP America	Blagg Er	'ess:			jeffcblagg@	age:)e)		Time	3/81	9281	1329	133 4	1340	7271	(2h)			
-	Client:		Mailing Address:		Phone #:	email or Fax#:	QA/QC Package;	X Standard	□ Other	□ EDD (Type)		Date	81/52/1						7		•	



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

August 02, 2018

Steve Moskal Blagg Engineering P. O. Box 87 Bloomfield, NM 87413

TEL: (505) 632-1199 FAX (505) 632-3903

RE: GCU 89E OrderNo.: 1807F23

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 4 sample(s) on 7/28/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andel

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1807F23 Date Reported: 8/2/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Client Sample ID: SOUTH BASE #4(2) @ 29' (5-

Project: GCU 89E **Collection Date:** 7/27/2018 12:30:00 PM Lab ID: 1807F23-001 Matrix: SOIL Received Date: 7/28/2018 8:30:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JRR
Chloride	ND	30	mg/Kg	20	7/30/2018 10:43:56 AM	39477
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	: AG
Gasoline Range Organics (GRO)	ND	19	mg/Kg	5	7/30/2018 10:58:50 AM	39463
Surr: BFB	107	70-130	%Rec	5	7/30/2018 10:58:50 AM	39463
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	: Irm
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	7/30/2018 10:42:44 AM	39476
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	7/30/2018 10:42:44 AM	39476
Surr: DNOP	79.8	50.6-138	%Rec	1	7/30/2018 10:42:44 AM	39476
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	: AG
Benzene	ND	0.093	mg/Kg	5	7/30/2018 10:58:50 AM	39463
Toluene	ND	0.19	mg/Kg	5	7/30/2018 10:58:50 AM	39463
Ethylbenzene	ND	0.19	mg/Kg	5	7/30/2018 10:58:50 AM	39463
Xylenes, Total	ND	0.37	mg/Kg	5	7/30/2018 10:58:50 AM	39463
Surr: 4-Bromofluorobenzene	120	70-130	%Rec	5	7/30/2018 10:58:50 AM	39463
Surr: Toluene-d8	90.6	70-130	%Rec	5	7/30/2018 10:58:50 AM	39463

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Practical Quanitative Limit POL
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 8 J
- P Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

Lab Order 1807F23

Date Reported: 8/2/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: SOUTH BASE #4 ESW (23'-27')

Project: GCU 89E

Collection Date: 7/27/2018 12:38:00 PM

Lab ID: 1807F23-002 **Matrix:** SOIL **Received Date:** 7/28/2018 8:30:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JRR
Chloride	ND	30	mg/Kg	20	7/30/2018 10:56:20 AM	39477
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	: AG
Gasoline Range Organics (GRO)	ND	18	mg/Kg	5	7/30/2018 11:22:04 AM	39463
Surr: BFB	104	70-130	%Rec	5	7/30/2018 11:22:04 AM	39463
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	: Irm
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	7/30/2018 11:04:50 AM	39476
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	7/30/2018 11:04:50 AM	39476
Surr: DNOP	80.0	50.6-138	%Rec	1	7/30/2018 11:04:50 AM	39476
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	: AG
Benzene	ND	0.092	mg/Kg	5	7/30/2018 11:22:04 AM	39463
Toluene	ND	0.18	mg/Kg	5	7/30/2018 11:22:04 AM	39463
Ethylbenzene	ND	0.18	mg/Kg	5	7/30/2018 11:22:04 AM	39463
Xylenes, Total	ND	0.37	mg/Kg	5	7/30/2018 11:22:04 AM	39463
Surr: 4-Bromofluorobenzene	117	70-130	%Rec	5	7/30/2018 11:22:04 AM	39463
Surr: Toluene-d8	90.1	70-130	%Rec	5	7/30/2018 11:22:04 AM	39463

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order **1807F23**Date Reported: **8/2/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

1807F23-003

Client Sample ID: SOUTH BASE #4 WSW (23'-27'

Project: GCU 89E

Lab ID:

Collection Date: 7/27/2018 12:46:00 PM **Received Date:** 7/28/2018 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: JRR
Chloride	ND	30		mg/Kg	20	7/30/2018 11:08:45 AM	39477
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst	: AG
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	7/30/2018 11:45:15 AM	39463
Surr: BFB	116	70-130		%Rec	1	7/30/2018 11:45:15 AM	39463
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS					Analyst	: Irm
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/30/2018 11:27:01 AM	39476
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/30/2018 11:27:01 AM	39476
Surr: DNOP	72.9	50.6-138		%Rec	1	7/30/2018 11:27:01 AM	39476
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst	: AG
Benzene	ND	0.020		mg/Kg	1	7/30/2018 11:45:15 AM	39463
Toluene	ND	0.040		mg/Kg	1	7/30/2018 11:45:15 AM	39463
Ethylbenzene	ND	0.040		mg/Kg	1	7/30/2018 11:45:15 AM	39463
Xylenes, Total	ND	0.079		mg/Kg	1	7/30/2018 11:45:15 AM	39463
Surr: 4-Bromofluorobenzene	131	70-130	S	%Rec	1	7/30/2018 11:45:15 AM	39463
Surr: Toluene-d8	89.2	70-130		%Rec	1	7/30/2018 11:45:15 AM	39463

Matrix: SOIL

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order **1807F23**Date Reported: **8/2/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Project: GCU 89E

Lab ID: 1807F23-004

Matrix: SOIL

Collection Date: 7/27/2018 12:53:00 PM

Received Date: 7/28/2018 8:30:00 AM

Client Sample ID: E/NEC-SW @ 5'-17' (3-pt) (2)

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JRR
Chloride	38	30	mg/Kg	20	7/30/2018 11:21:09 AM	39477
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	: AG
Gasoline Range Organics (GRO)	ND	3.9	mg/Kg	1	7/30/2018 12:08:33 PM	39463
Surr: BFB	112	70-130	%Rec	1	7/30/2018 12:08:33 PM	39463
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	: Irm
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	7/30/2018 11:49:06 AM	39476
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	7/30/2018 11:49:06 AM	39476
Surr: DNOP	81.0	50.6-138	%Rec	1	7/30/2018 11:49:06 AM	39476
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	: AG
Benzene	ND	0.019	mg/Kg	1	7/30/2018 12:08:33 PM	39463
Toluene	ND	0.039	mg/Kg	1	7/30/2018 12:08:33 PM	39463
Ethylbenzene	ND	0.039	mg/Kg	1	7/30/2018 12:08:33 PM	39463
Xylenes, Total	ND	0.078	mg/Kg	1	7/30/2018 12:08:33 PM	39463
Surr: 4-Bromofluorobenzene	126	70-130	%Rec	1	7/30/2018 12:08:33 PM	39463
Surr: Toluene-d8	86.7	70-130	%Rec	1	7/30/2018 12:08:33 PM	39463

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 4 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

1807F23 02-Aug-18

WO#:

Client:

Blagg Engineering

Project: GCU 89E

Sample ID MB-39477 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 39477 RunNo: 53089

Prep Date: **7/30/2018** Analysis Date: **7/30/2018** SeqNo: **1746592** Units: **mg/Kg**

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID LCS-39477 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 39477 RunNo: 53089

Prep Date: 7/30/2018 Analysis Date: 7/30/2018 SeqNo: 1746593 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 96.6 90 110

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 5 of 8

Hall Environmental Analysis Laboratory, Inc.

02-Aug-18

1807F23

WO#:

Client:

Blagg Engineering

Project: GCU 89E

Sample ID MB-39476	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: PBS	Batch	1D: 394	476	R	RunNo: 5	3063				
Prep Date: 7/30/2018	Analysis D	ate: 7/	30/2018	S	SeqNo: 1	745484	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.0		10.00		80.1	50.6	138			

Sample ID LCS-39476	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS	Batch	1D: 39	476	F	RunNo: 5	3063				
Prep Date: 7/30/2018	Analysis D	ate: 7/	30/2018	S	SeqNo: 1	745485	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	89.7	70	130			
Surr: DNOP	3.6		5.000		71.2	50.6	138			

Qualifiers:

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

.

Page 6 of 8

Hall Environmental Analysis Laboratory, Inc.

1807F23 02-Aug-18

WO#:

Client:

Blagg Engineering

Project: GCU 89E

Sample ID Ics-39463	SampT	ype: LC	S4	TestCode: EPA Method 8260B: Volatiles Short List							
Client ID: BatchQC	Batcl	n ID: 394	463	F	RunNo: 5 :						
Prep Date: 7/27/2018	Analysis D	Date: 7/	30/2018	S	SeqNo: 1	745295	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.91	0.025	1.000	0	91.1	80	120				
Toluene	0.96	0.050	1.000	0	95.9	80	120				
Ethylbenzene	1.0	0.050	1.000	0	99.5	80	120				
Xylenes, Total	3.0	0.10	3.000	0	98.5	80	120				
Surr: 4-Bromofluorobenzene	0.57		0.5000		115	70	130				
Surr: Toluene-d8	0.43		0.5000	86.1 70			130				

Sample ID mb-39463	Samp	ype: ME	BLK	Tes	tCode: El	PA Method	8260B: Volat	iles Short	List	
Client ID: PBS	Batc	h ID: 39	463	F	RunNo: 5	3058				
Prep Date: 7/27/2018	Analysis D	Date: 7/	30/2018	9	SeqNo: 1	745296	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.66		0.5000		133	70	130			S
Surr: Toluene-d8	0.45		0.5000		89.9	70	130			

Qualifiers:

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

Page 7 of 8

Hall Environmental Analysis Laboratory, Inc.

02-Aug-18

1807F23

WO#:

Client:

Blagg Engineering

Project: GCU 89E

Sample ID Ics-39463	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015D Mod:	Gasoline	Range	
Client ID: LCSS	Batch	ID: 39	463	R	RunNo: 5	3058				
Prep Date: 7/27/2018	Analysis D	ate: 7/	30/2018	S	SeqNo: 1	745288	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	106	70	130			
Surr: BFB	520		500.0		105	70	130			

Sample ID mb-39463	SampT	ype: ME	BLK	Test	tCode: El	PA Method	8015D Mod:	Gasoline	Range	
Client ID: PBS	Batch	ID: 39	463	R	RunNo: 5	3058				
Prep Date: 7/27/2018	Analysis D	ate: 7/	30/2018	S	SeqNo: 1	745289	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	590		500.0		118	70	130			

Qualifiers:

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

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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	vvork Order Num	ber: 1807F23		RcptNo	: 1
Received By: Andy Freeman	7/28/2018 8:30:00	АМ	andyl	_	
Completed By: Anne Thorne	7/30/2018 7:42:02	AM	and Show		
Reviewed By: ENM	7/30/18				
Labeled by: A 07	130/18				
Chain of Custody	,				
1. Is Chain of Custody complete?		Yes 🗹	No 🗌	Not Present	
2. How was the sample delivered?		Courier			
<u>Log In</u>					
3. Was an attempt made to cool the	samples?	Yes 🗹	No 🗌	NA 🗌	
4. Were all samples received at a te	mperature of >0° C to 6.0°C	Yes 🗹	No 🗆	NA 🗔	
5. Sample(s) in proper container(s)?	•	Yes 🗸	No 🗌		
6. Sufficient sample volume for indic	ated test(s)?	Yes 🗹	No 🗌		
7. Are samples (except VOA and ON	IG) properly preserved?	Yes 🗸	No 🗆		
8. Was preservative added to bottles	?	Yes 🗌	No 🗹	NA \square	•
9. VOA vials have zero headspace?		Yes \square	No 🗌	No VOA Vials 🗹	
10. Were any sample containers rece	eived broken?	Yes	No 🗹	# of preserved	
11 Daga magazinak aratak kisik kilo laki	1:0			bottles checked	
 Does paperwork match bottle labe (Note discrepancies on chain of cu 		Yes 🗹	No ∐	for pH: (<2 or	>12 unless noted)
12. Are matrices correctly identified or	1 Chain of Custody?	Yes 🗸	No 🗆	Adjusted?	
13. Is it clear what analyses were requ	uested?	Yes 🗹	No 🗀		
 Were all holding times able to be r (If no, notify customer for authorized) 		Yes 🗹	No 🗆	Checked by:	
Special Handling (if applicab	<u>(e)</u>				
15. Was client notified of all discrepa	ncies with this order?	Yes	No 🗆	NA 🗹	
Person Notified:	Date		<u> </u>]
By Whom:	Via:	eMail P	hone 🗌 Fax	☐ In Person	
Regarding:				DATE NAME Allow revenue conservations and province conservations are conservations and province conservations and province conservations and province conservations and province conservations are conservations and province conservations are conservations and province conservations and province conservations are conservations and province conservations and province conservations are conservations and province conservations are conservations and province conservations are conservations and province conser	
Client Instructions:					
16. Additional remarks:					
17. <u>Cooler Information</u>					
Cooler No Temp C Cond		Seal Date	Signed By		
1 2.1 Good	Yes				

ວົ	ain-c	of-Cus	Chain-of-Custody Record	Turn-Around Time:	Time:						
Client:	BP America	erica		- □ Standard	⊠ Rush	Same Day		HAL	HALL ENVIRONMENTAL ANAI YSTS I ARODATODY	MENTAL	
	Blagg E	Blagg Engineering, Inc.		Project Name GCU 89E	GCU 89E	ı		ww.	www hallenvironmental com	moo 1	
Mailing Address:	ress:						4	901 Hawkins	4901 Hawkins NE - Albuchergue, NM 87109	NM 87109	
				Project #:				Tel. 505-345-3975	975 Fax 505-345-4107	45-4107	
Phone #:		(505)320-1183	0-1183					1	/sis		
email or Fax#;	jeffcblagg	@aol.com /	email or Fax#: jeffcblagg@aol.com / steven.moskal@bpx.com	Project Manager:	ger:			(0)			
QA/QC Package:	age:				Steve Moskal	_		IW.			
X Standard			☐ Level 4 (Full Validation)					/ O b			
□ Other				Sampler:	Jeff Blagg/Nelson Velez	elson Velez		ia /			(1
☐ EDD (Type)) (ec			On Ice:	X es (X X X X X X X X X X	_ No_	(12	OF			V JC
				Sample Tem	oerature: 🔾)	(80	(GE			入)
				A Origation			Λlη(158		E	səjc
Date	Time	Matrix	Sample Request ID	Type and #	rieservanve Type		X X T	08 Hd		hloride	r Bub
8/142/1	1230	Soil	South 8005 # 4 (2)	17124H K15 402 x 1	Cool	1001123	× B	1 ×) ×	ΙΑ
			e 29' (5-PT)								
2/12/1	1238	7105	五年	1-20/2	Case	01	X	 		>	
2 447		10	350	\$							
2/22/18	342	2017		402 -1	٥٥١	8/8	 	メ		*	
		3	SSW (2								ļ
7/27/18	1253	201L	# MEC-5W @ 5-17	7-20/	Cool	400g	メ	X		X	
			(3-pt.)(a)								
Date: Time: 7/27/18 1737		Relinquished by:	$\int \int \int \int \int d^{2} x dx dx$	Received by: huatu	Waste	Date Time $\sqrt{\lambda} = \sqrt{\lambda} = \sqrt{\lambda}$		Remarks: Bill BP Contact: Steve Moskal VID: VHIXONEVRM	cal		
Date: 7 18	Time:	Relinquished by:	1/20 h	Received by:	7,	Date Time $7/28/7$ 0830		lement: L1-0	WBS Element: L1-001CT-E:GCU89E		
lf heces.	sary, sample	s submitted to	necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report	ed to other accredited	laboratories. This	s serves as notice of this possi	bility. Any su	b-contracted data w	ill be clearly notated on the	analytical report.]



Report Summary

Client: BP America Production Co.

Samples Received: 8/7/2019 Job Number: 03143-0424 Work Order: P908019

Project Name/Location: GCU 89E

Report Reviewed By:	Walter Hinderson	Date:	8/9/19	
	Walter Hinchman, Laboratory Director	_		



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.

Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.

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Envirotech, Inc, currently holds the appropriate and available Utah TNI certification NM009792018-1 for the data reported.

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BP America Production Co. Project Name: GCU 89E

PO Box 22024 Project Number: 03143-0424 Reported:
Tulsa OK, 74121-2024 Project Manager: Steve Moskal 08/09/19 13:36

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
WW (II) West Wall- North (0'-9')	P908019-01A	Soil	08/07/19	08/07/19	Glass Jar, 4 oz.
WW (II) West Wall- South (0'-9')	P908019-02A	Soil	08/07/19	08/07/19	Glass Jar, 4 oz.
WW (II) North Face (3'-18')	P908019-03A	Soil	08/07/19	08/07/19	Glass Jar, 4 oz.
WW (II) North Base @ 20'	P908019-04A	Soil	08/07/19	08/07/19	Glass Jar, 4 oz.
WW (II) South Base @ 24'	P908019-05A	Soil	08/07/19	08/07/19	Glass Jar, 4 oz.
WW (II) West Wall- North (10'-18')	P908019-06A	Soil	08/07/19	08/07/19	Glass Jar, 4 oz.
WW (II) West Wall- South (10'-20')	P908019-07A	Soil	08/07/19	08/07/19	Glass Jar, 4 oz.

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Labadmin@envirotech-inc.com



Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: 03143-0424 Project Manager: Steve Moskal **Reported:** 08/09/19 13:36

WW (II) West Wall- North (0'-9') P908019-01 (Solid)

	•	Reporting	•	•	•	•			
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	1932026	08/07/19	08/07/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1932026	08/07/19	08/07/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1932026	08/07/19	08/07/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1932026	08/07/19	08/07/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1932026	08/07/19	08/07/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1932026	08/07/19	08/07/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		104 %	50-	-150	1932026	08/07/19	08/07/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO/OR	aO .								
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1932024	08/07/19	08/07/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1932024	08/07/19	08/07/19	EPA 8015D	
Surrogate: n-Nonane		117 %	50-	-200	1932024	08/07/19	08/07/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1932026	08/07/19	08/07/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		93.7 %	50-	-150	1932026	08/07/19	08/07/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	204	20.0	mg/kg	1	1932025	08/07/19	08/07/19	EPA 300.0/9056A	

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: 03143-0424
Project Manager: Steve Moskal

Reported: 08/09/19 13:36

WW (II) West Wall- South (0'-9') P908019-02 (Solid)

		P9080	19-02 (Sona)						
		Reporting							
Analyte	Result	Limit	Units D	ilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg 1		1932026	08/07/19	08/07/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg 1		1932026	08/07/19	08/07/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg 1		1932026	08/07/19	08/07/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg 1		1932026	08/07/19	08/07/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg 1		1932026	08/07/19	08/07/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg 1		1932026	08/07/19	08/07/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		105 %	50-150		1932026	08/07/19	08/07/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO	/ORO								
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg 1		1932024	08/07/19	08/07/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg 1		1932024	08/07/19	08/07/19	EPA 8015D	
Surrogate: n-Nonane		111 %	50-200		1932024	08/07/19	08/07/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg 1		1932026	08/07/19	08/07/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		93.6 %	50-150		1932026	08/07/19	08/07/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	121	20.0	mg/kg 1		1932025	08/07/19	08/07/19	EPA 300.0/9056A	

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: 03143-0424
Project Manager: Steve Moskal

Reported: 08/09/19 13:36

WW (II) North Face (3'-18') P908019-03 (Solid)

		P9080	19-03 (Solia)					
		Reporting						
Analyte	Result	Limit	Units Dile	ution Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021								
Benzene	ND	0.0250	mg/kg 1	1932026	08/07/19	08/07/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg 1	1932026	08/07/19	08/07/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg 1	1932026	08/07/19	08/07/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg 1	1932026	08/07/19	08/07/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg 1	1932026	08/07/19	08/07/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg 1	1932026	08/07/19	08/07/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		105 %	50-150	1932026	08/07/19	08/07/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO/	ORO							
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg 1	1932024	08/07/19	08/07/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg 1	1932024	08/07/19	08/07/19	EPA 8015D	
Surrogate: n-Nonane		107 %	50-200	1932024	08/07/19	08/07/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO								
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg 1	1932026	08/07/19	08/07/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		93.4 %	50-150	1932026	08/07/19	08/07/19	EPA 8015D	
Anions by 300.0/9056A								
Chloride	105	20.0	mg/kg 1	1932025	08/07/19	08/07/19	EPA 300.0/9056A	

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: Project Manager: 03143-0424 Steve Moskal **Reported:** 08/09/19 13:36

WW (II) North Base @ 20'

		P9080	19-04 (Solid))					
		Reporting							
Analyte	Result	Limit	Units I	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg 1		1932026	08/07/19	08/07/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg 1		1932026	08/07/19	08/07/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg 1		1932026	08/07/19	08/07/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg 1		1932026	08/07/19	08/07/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg 1		1932026	08/07/19	08/07/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg 1		1932026	08/07/19	08/07/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		104 %	50-150)	1932026	08/07/19	08/07/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO/O	RO								
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg 1		1932024	08/07/19	08/07/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg 1		1932024	08/07/19	08/07/19	EPA 8015D	
Surrogate: n-Nonane		111 %	50-200)	1932024	08/07/19	08/07/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg 1		1932026	08/07/19	08/07/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		93.4 %	50-150)	1932026	08/07/19	08/07/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	25.3	20.0	mg/kg 1		1932025	08/07/19	08/07/19	EPA 300.0/9056A	

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: 03143-0424
Project Manager: Steve Moskal

Reported: 08/09/19 13:36

WW (II) South Base @ 24' P908019-05 (Solid)

		P9080	19-05 (Solid)					
		Reporting						
Analyte	Result	Limit	Units Dil	ution Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021								
Benzene	ND	0.0250	mg/kg 1	1932026	08/07/19	08/07/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg 1	1932026	08/07/19	08/07/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg 1	1932026	08/07/19	08/07/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg 1	1932026	08/07/19	08/07/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg 1	1932026	08/07/19	08/07/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg 1	1932026	08/07/19	08/07/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		105 %	50-150	1932026	08/07/19	08/07/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO	O/ORO							
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg 1	1932024	08/07/19	08/07/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg 1	1932024	08/07/19	08/07/19	EPA 8015D	
Surrogate: n-Nonane		111 %	50-200	1932024	08/07/19	08/07/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO)							
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg 1	1932026	08/07/19	08/07/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		93.3 %	50-150	1932026	08/07/19	08/07/19	EPA 8015D	
Anions by 300.0/9056A								
Chloride	21.5	20.0	mg/kg 1	1932025	08/07/19	08/07/19	EPA 300.0/9056A	

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: Project Manager: 03143-0424 Steve Moskal **Reported:** 08/09/19 13:36

WW (II) West Wall- North (10'-18') P908019-06 (Solid)

		17000	17-00 (Soliu)						
		Reporting							
Analyte	Result	Limit	Units I	ilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg 1		1932026	08/07/19	08/07/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg 1		1932026	08/07/19	08/07/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg 1		1932026	08/07/19	08/07/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg 1		1932026	08/07/19	08/07/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg 1		1932026	08/07/19	08/07/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg 1		1932026	08/07/19	08/07/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		105 %	50-150		1932026	08/07/19	08/07/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO/	ORO								
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg 1		1932024	08/07/19	08/07/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg 1		1932024	08/07/19	08/07/19	EPA 8015D	
Surrogate: n-Nonane		109 %	50-200		1932024	08/07/19	08/07/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg 1		1932026	08/07/19	08/07/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		92.3 %	50-150		1932026	08/07/19	08/07/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	73.7	20.0	mg/kg 1		1932025	08/07/19	08/07/19	EPA 300.0/9056A	

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: 03143-0424
Project Manager: Steve Moskal

Reported: 08/09/19 13:36

WW (II) West Wall- South (10'-20') P908019-07 (Solid)

		1 7000	13-07 (3011	u)					
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	1932026	08/07/19	08/07/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1932026	08/07/19	08/07/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1932026	08/07/19	08/07/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1932026	08/07/19	08/07/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1932026	08/07/19	08/07/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1932026	08/07/19	08/07/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		105 %	50-1.	50	1932026	08/07/19	08/07/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO/6	ORO								
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1932024	08/07/19	08/07/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1932024	08/07/19	08/07/19	EPA 8015D	
Surrogate: n-Nonane		112 %	50-2	00	1932024	08/07/19	08/07/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1932026	08/07/19	08/07/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		93.0 %	50-1.	50	1932026	08/07/19	08/07/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	97.5	20.0	mg/kg	1	1932025	08/07/19	08/07/19	EPA 300.0/9056A	

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BP America Production Co. Pro
PO Box 22024 Pro

Project Name:

GCU 89E

Tulsa OK, 74121-2024

Project Number: 03143-0424 Project Manager: Steve Moskal **Reported:** 08/09/19 13:36

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1932026 - Purge and Trap EPA 5030A										
Blank (1932026-BLK1)				Prepared: 0	Analyzed: 0	8/08/19 0				
Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
p,m-Xylene	ND	0.0500	"							
o-Xylene	ND	0.0250	"							
Total Xylenes	ND	0.0250	"							
Surrogate: 4-Bromochlorobenzene-PID	8.68		"	8.00		109	50-150			
LCS (1932026-BS1)		Prepared: 08/07/19 1 Analyzed: 08/08/19 0								
Benzene	4.80	0.0250	mg/kg	5.00		96.0	70-130			
Toluene	4.77	0.0250	"	5.00		95.4	70-130			
Ethylbenzene	4.76	0.0250	"	5.00		95.3	70-130			
p,m-Xylene	9.72	0.0500	"	10.0		97.2	70-130			
o-Xylene	4.79	0.0250		5.00		95.8	70-130			
Total Xylenes	14.5	0.0250	"	15.0		96.7	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.65		"	8.00		108	50-150			
Matrix Spike (1932026-MS1)	Sou	rce: P908018-	01	Prepared: 0	08/07/19 1 A	Analyzed: 0				
Benzene	4.85	0.0250	mg/kg	5.00	ND	97.0	54.3-133			
Toluene	4.82	0.0250	"	5.00	ND	96.3	61.4-130			
Ethylbenzene	4.78	0.0250	"	5.00	ND	95.7	61.4-133			
p,m-Xylene	9.76	0.0500	"	10.0	ND	97.6	63.3-131			
o-Xylene	4.80	0.0250	"	5.00	ND	95.9	63.3-131			
Total Xylenes	14.6	0.0250	"	15.0	ND	97.0	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	8.54		"	8.00		107	50-150			
Matrix Spike Dup (1932026-MSD1)	Sou	rce: P908018-	01	Prepared: 08/07/19 1 Analyzed: 08/08/19 0						
Benzene	4.78	0.0250	mg/kg	5.00	ND	95.6	54.3-133	1.43	20	
Toluene	4.74	0.0250	"	5.00	ND	94.9	61.4-130	1.51	20	
Ethylbenzene	4.75	0.0250		5.00	ND	95.0	61.4-133	0.745	20	
p,m-Xylene	9.71	0.0500		10.0	ND	97.1	63.3-131	0.533	20	
o-Xylene	4.77	0.0250		5.00	ND	95.4	63.3-131	0.572	20	
Total Xylenes	14.5	0.0250		15.0	ND	96.5	63.3-131	0.546	20	
	8.48		"	8.00		106	50-150			
Surrogate: 4-Bromochlorobenzene-PID	8.48			8.00		100	30-130			

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BP America Production Co. PO Box 22024 Project Name:

GCU 89E

Tulsa OK, 74121-2024

Project Number: 03143-0424
Project Manager: Steve Moskal

Reported: 08/09/19 13:36

Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1932024 - DRO Extraction EPA 3570										
Blank (1932024-BLK1)				Prepared: (08/07/19 1 A	Analyzed: 0	8/08/19 1			
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	54.3		"	50.0		109	50-200			
LCS (1932024-BS1)				Prepared: (08/07/19 1 A	Analyzed: 0				
Diesel Range Organics (C10-C28)	514	25.0	mg/kg	500		103	38-132			
Surrogate: n-Nonane	54.7		"	50.0		109	50-200			
Matrix Spike (1932024-MS1)	Sour	ce: P908019-	01	Prepared: (08/07/19 1 A	Analyzed: 0	8/08/19 1			
Diesel Range Organics (C10-C28)	524	25.0	mg/kg	500	ND	105	38-132			
Surrogate: n-Nonane	54.8		"	50.0		110	50-200			
Matrix Spike Dup (1932024-MSD1)	Source: P908019-01			Prepared: (08/07/19 1 A	Analyzed: 0				
Diesel Range Organics (C10-C28)	526	25.0	mg/kg	500	ND	105	38-132	0.291	20	
Surrogate: n-Nonane	55.3		"	50.0		111	50-200			

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: 0314 Project Manager: Stev

03143-0424 Steve Moskal **Reported:** 08/09/19 13:36

Nonhalogenated Organics by 8015 - GRO - Quality Control

Envirotech Analytical Laboratory

	Reporting		Spike	Source		%REC		RPD	
Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
			Prepared: (08/07/19 1 A	Analyzed: 0	8/08/19 0			
ND	20.0	mg/kg							
7.34		"	8.00		91.7	50-150			
			Prepared: (08/07/19 1 A	Analyzed: 0	8/08/19 0			
45.5	20.0	mg/kg	50.0		91.0	70-130			
7.47		"	8.00		93.4	50-150			
Sour	ce: P908018-	01	Prepared: (08/07/19 1 A	Analyzed: 0	8/08/19 1			
44.0	20.0	mg/kg	50.0	ND	88.1	70-130			
7.62		"	8.00		95.2	50-150			
Sour	Source: P908018-01			08/07/19 1 A	Analyzed: 0	8/08/19 1			
46.8	20.0	mg/kg	50.0	ND	93.7	70-130	6.19	20	
7.54		"	8.00		94.3	50-150			
	ND 7.34 45.5 7.47 Sour 44.0 7.62 Sour 46.8	ND 20.0 7.34 45.5 20.0 7.47 Source: P908018- 44.0 20.0 7.62 Source: P908018- 46.8 20.0	ND 20.0 mg/kg 7.34 " 45.5 20.0 mg/kg 7.47 " Source: P908018-01 44.0 20.0 mg/kg 7.62 " Source: P908018-01 46.8 20.0 mg/kg	Prepared: 6 ND 20.0 mg/kg 7.34 " 8.00 Prepared: 6 45.5 20.0 mg/kg 50.0 7.47 " 8.00 Source: P908018-01 Prepared: 6 44.0 20.0 mg/kg 50.0 7.62 " 8.00 Source: P908018-01 Prepared: 6 46.8 20.0 mg/kg 50.0	Prepared: 08/07/19 1 2 ND 20.0 mg/kg 7.34 " 8.00 Prepared: 08/07/19 1 2 45.5 20.0 mg/kg 50.0 7.47 " 8.00 Source: P908018-01 Prepared: 08/07/19 1 2 44.0 20.0 mg/kg 50.0 ND 7.62 " 8.00 Source: P908018-01 Prepared: 08/07/19 1 2 46.8 20.0 mg/kg 50.0 ND	Prepared: 08/07/19 1 Analyzed: 0 ND 20.0 mg/kg 7.34 " 8.00 91.7 Prepared: 08/07/19 1 Analyzed: 0 45.5 20.0 mg/kg 50.0 91.0 7.47 " 8.00 93.4 Source: P908018-01 Prepared: 08/07/19 1 Analyzed: 0 44.0 20.0 mg/kg 50.0 ND 88.1 7.62 " 8.00 95.2 Source: P908018-01 Prepared: 08/07/19 1 Analyzed: 0 46.8 20.0 mg/kg 50.0 ND 93.7	Prepared: 08/07/19 1 Analyzed: 08/08/19 0 ND 20.0 mg/kg 7.34 " 8.00 91.7 50-150 Prepared: 08/07/19 1 Analyzed: 08/08/19 0 45.5 20.0 mg/kg 50.0 91.0 70-130 7.47 " 8.00 93.4 50-150 Source: P908018-01 Prepared: 08/07/19 1 Analyzed: 08/08/19 1 44.0 20.0 mg/kg 50.0 ND 88.1 70-130 7.62 " 8.00 95.2 50-150 Source: P908018-01 Prepared: 08/07/19 1 Analyzed: 08/08/19 1 46.8 20.0 mg/kg 50.0 ND 93.7 70-130	Prepared: 08/07/19 1 Analyzed: 08/08/19 0 ND 20.0 mg/kg 7.34 " 8.00 91.7 50-150 Prepared: 08/07/19 1 Analyzed: 08/08/19 0 45.5 20.0 mg/kg 50.0 91.0 70-130 7.47 " 8.00 93.4 50-150 Source: P908018-01 Prepared: 08/07/19 1 Analyzed: 08/08/19 1 44.0 20.0 mg/kg 50.0 ND 88.1 70-130 7.62 " 8.00 95.2 50-150 Source: P908018-01 Prepared: 08/07/19 1 Analyzed: 08/08/19 1 46.8 20.0 mg/kg 50.0 ND 93.7 70-130 6.19	Prepared: 08/07/19 1 Analyzed: 08/08/19 0 ND 20.0 mg/kg 7.34 " 8.00 91.7 50-150 Prepared: 08/07/19 1 Analyzed: 08/08/19 0 45.5 20.0 mg/kg 50.0 91.0 70-130 7.47 " 8.00 93.4 50-150 Source: P908018-01 Prepared: 08/07/19 1 Analyzed: 08/08/19 1 44.0 20.0 mg/kg 50.0 ND 88.1 70-130 7.62 " 8.00 95.2 50-150 Source: P908018-01 Prepared: 08/07/19 1 Analyzed: 08/08/19 1 46.8 20.0 mg/kg 50.0 ND 93.7 70-130 6.19 20

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 BP America Production Co.
 Project Name:
 GCU 89E

 PO Box 22024
 Project Number:
 03143-0424

 Tulsa OK, 74121-2024
 Project Manager:
 Steve Moskal

 08/09/19 13:36

Anions by 300.0/9056A - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1932025 - Anion Extraction EPA 300.	0/9056A									
Blank (1932025-BLK1)				Prepared &	Analyzed:	08/07/19 1				
Chloride	ND	20.0	mg/kg							
LCS (1932025-BS1)				Prepared &	Analyzed:	08/07/19 1				
Chloride	267	20.0	mg/kg	250		107	90-110			
Matrix Spike (1932025-MS1)	Sour	ce: P908019-0	01	Prepared &	Analyzed:	08/07/19 1				
Chloride	480	20.0	mg/kg	250	204	110	80-120			
Matrix Spike Dup (1932025-MSD1)	Sour	ce: P908019-0	01	Prepared &	Analyzed:	08/07/19 1				
Chloride	475	20.0	mg/kg	250	204	108	80-120	0.909	20	

QC Summary Report

Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values my differ slightly.

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24 Hour Emergency Response Phone (800) 362-1879 Labadmin@envirotech-inc.com



Project Name:

GCU 89E

PO Box 22024

Tulsa OK, 74121-2024

Project Number: Project Manager: 03143-0424 Steve Moskal

Reported: 08/09/19 13:36

Notes and Definitions

DET

Analyte DETECTED

ND

Analyte NOT DETECTED at or above the reporting limit

NR

Not Reported

RPD

Relative Percent Difference

**

Methods marked with ** are non-accredited methods.

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Chain of Custody

	Page	183	of	190
age		of	1	

	BPX E						Report Attention				L	ab U	se On	ly			T/	AT		EPA Progr	ram	_
	GCU						Report due by: AUGUST 8, ZO	19	Lab	WO	†	0):	dot	Num	ber	AH	1D	3D	RCRA		SDW	Α
	/Janager:	STEVE	1º10SKAC				Attention: STEVE MOSKAL JERF	BLAGE	P°	108	010		03	143	-04	24	X					
Address:							Address:			_			Analy	sis a	nd Me	thod				S	tate	
City, Stat	.e, zip				S		City, State, Zip					İ								NM CC	O UT A	AΖ
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Sampled	Sampled	Matrix	Containers	Sample II)			Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			ł			Re	marks	
1308	8/7/2019	SOIL	1	WWI	E) We	5+	Wall-NORTH (0'-9')	l	X	Х	X			X								
1310			1	WW(1	I)W	est	Wall-South (0'-9')	2	1					1								
1316			1	ww(I.	(I)	loa	TH FACE (3-18')	3														
1325				WW(I	J/	JOR	TH BASE @ 20'	4													##	
1329			1	ww(I	I) S	ر ان00	TH BASE @ Z4"	5														I Comp
1334	1.		1				+ Wall - NORTH (10-18')	b														
1338			1	WW (I	I) U	كور	- Wall - SONTH (10'-20')	7	-		1			İ							ns — 15	
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Additiona			BILL BP. PROJECT	P.O.	to !	Se	issued.							1		5 1	CI	71	Co	ples		7
time of collecti	on is considere	validity and au	thenticity of th	is sample. Ta	n aware tl	hat ta	mpering with or intentionally mislabelling the sample loc	ation, date or						equiring	thermal	preserva	ition mu	st be rec	eived on ice	the day they are s n subsequent day		\exists
Relinquished	by: (Signat	ture)	Date 8/7	/2019	Time 14	5		8/7/1	9	Time 14	1: E	1	Recei	ved	on ice	e:	lat (Y)	Use N	Only			
Relinquished	d by: (Signat	ture)	Date		Time		Received by: (Signature)	Date		Time		-	Г1				2			Т3		
Relinquished	d by: (Signat	ture)	Date		Time		Received by: (Signature)	Date	1	Time	_		AVG 1	emr	°C	4		1				
Sample Matrix							-	Container	Type:	g - gi	ass. r	og -	v/pla	stic. a	e - ar	nher	elass	V - V	ΩΔ			-
Note: Samples only to those s	are discarde	d 30 days afte	er results are boratory with	reported unl	ess other ne liabilit	arrar	gements are made. Hazardous samples will be ret ne laboratory is limited to the amount paid for on t	urned to client	or disp	osed o	f at the	client	expens	e. The	e report	for the	e analy	sis of t	he above	samples is app	licable	7
			.,			,	The state of the amount paid for the	ne report.														



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Analytical Report

Report Summary

Client: BP America Production Co.

Samples Received: 8/13/2019

Job Number: 03143-0424

Work Order: P908028

Project Name/Location: GCU 89E

Report Reviewed By:	Walter Hinkman	Date:	8/15/19	
	Walter Hinchman, Laboratory Director	-		



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.

Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.

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Envirotech, Inc, currently holds the appropriate and available Utah TNI certification NM009792018-1 for the data reported.

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BP America Production Co.

Project Name: GCU 89E

PO Box 22024

Tulsa OK, 74121-2024

Project Manager: Steve Moskal

GCU 89E

Reported:

08/15/19 14:02

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
South Wall (II) East Base	P908028-01A	Soil	08/13/19	08/13/19	Glass Jar, 4 oz.
South Wall (II) SE Corner Wall	P908028-02A	Soil	08/13/19	08/13/19	Glass Jar, 4 oz.
South Wall (II) South Mid Wall	P908028-03A	Soil	08/13/19	08/13/19	Glass Jar, 4 oz.
South Wall (II) West Base	P908028-04A	Soil	08/13/19	08/13/19	Glass Jar, 4 oz.
South Wall (II) SW Corner Wall	P908028-05A	Soil	08/13/19	08/13/19	Glass Jar, 4 oz.

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BP America Production Co. Project Name: GCU 89E

PO Box 22024 Project Number: 03143-0424

Tulsa OK, 74121-2024 Project Manager: Steve Moska

Project Number: 03143-0424 **Reported:**Project Manager: Steve Moskal 08/15/19 14:02

South Wall (II) East Base P908028-01 (Solid)

		P9080	28-01 (Solia)						
		Reporting							•
Analyte	Result	Limit	Units D	ilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg 1		1933012	08/13/19	08/14/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg 1		1933012	08/13/19	08/14/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg 1		1933012	08/13/19	08/14/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg 1		1933012	08/13/19	08/14/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg 1		1933012	08/13/19	08/14/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg 1		1933012	08/13/19	08/14/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		108 %	50-150		1933012	08/13/19	08/14/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO	/ORO								
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg 1		1933013	08/13/19	08/13/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg 1		1933013	08/13/19	08/13/19	EPA 8015D	
Surrogate: n-Nonane		106 %	50-200		1933013	08/13/19	08/13/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg 1		1933012	08/13/19	08/14/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		93.5 %	50-150		1933012	08/13/19	08/14/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg 1		1933014	08/13/19	08/14/19	EPA 300.0/9056A	

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5796 Highway 64, Farmington, NM 87401

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: 03143-0424
Project Manager: Steve Moskal

Reported: 08/15/19 14:02

South Wall (II) SE Corner Wall P908028-02 (Solid)

		Reporting	20 02 (50)					
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	1933012	08/13/19	08/14/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1933012	08/13/19	08/14/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1933012	08/13/19	08/14/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1933012	08/13/19	08/14/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1933012	08/13/19	08/14/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1933012	08/13/19	08/14/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		107 %	50-	150	1933012	08/13/19	08/14/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO/OR	0								
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1933013	08/13/19	08/13/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1933013	08/13/19	08/13/19	EPA 8015D	
Surrogate: n-Nonane		105 %	50-	200	1933013	08/13/19	08/13/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1933012	08/13/19	08/14/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		92.6 %	50-	150	1933012	08/13/19	08/14/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	199	20.0	mg/kg	1	1933014	08/13/19	08/14/19	EPA 300.0/9056A	

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BP America Production Co. PO Box 22024

Tulsa OK, 74121-2024

Project Name:

GCU 89E

Project Number: Project Manager: 03143-0424 Steve Moskal **Reported:** 08/15/19 14:02

South Wall (II) South Mid Wall P908028-03 (Solid)

		17000	20-05 (5010	•)					
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg 1		1933012	08/13/19	08/14/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg 1		1933012	08/13/19	08/14/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg 1		1933012	08/13/19	08/14/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg 1		1933012	08/13/19	08/14/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg 1		1933012	08/13/19	08/14/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg 1		1933012	08/13/19	08/14/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		108 %	50-15	0	1933012	08/13/19	08/14/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO/0	ORO								
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg 1		1933013	08/13/19	08/13/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg 1		1933013	08/13/19	08/13/19	EPA 8015D	
Surrogate: n-Nonane		103 %	50-20	0	1933013	08/13/19	08/13/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg 1		1933012	08/13/19	08/14/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		93.1 %	50-15	0	1933012	08/13/19	08/14/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	97.8	20.0	mg/kg 1		1933014	08/13/19	08/14/19	EPA 300.0/9056A	

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Project Name:

GCU 89E

PO Box 22024 Tulsa OK, 74121-2024 Project Number: 03143-0424
Project Manager: Steve Moskal

Reported: 08/15/19 14:02

South Wall (II) West Base P908028-04 (Solid)

		1,000	20-04 (50						
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	1933012	08/13/19	08/14/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1933012	08/13/19	08/14/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1933012	08/13/19	08/14/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1933012	08/13/19	08/14/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1933012	08/13/19	08/14/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1933012	08/13/19	08/14/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		106 %	50-	150	1933012	08/13/19	08/14/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO/OF	RO								
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1933013	08/13/19	08/13/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1933013	08/13/19	08/13/19	EPA 8015D	
Surrogate: n-Nonane		106 %	50-	200	1933013	08/13/19	08/13/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1933012	08/13/19	08/14/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		94.0 %	50-	150	1933012	08/13/19	08/14/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	ND	20.0	mg/kg	1	1933014	08/13/19	08/14/19	EPA 300.0/9056A	

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BP America Production Co.
PO Box 22024

Project Name:

GCU 89E 03143-0424

Steve Moskal

Tulsa OK, 74121-2024

Project Number: Project Manager: Reported:

08/15/19 14:02

South Wall (II) SW Corner Wall P908028-05 (Solid)

	_	Reporting	_		_			_	
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	1933012	08/13/19	08/14/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1933012	08/13/19	08/14/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1933012	08/13/19	08/14/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1933012	08/13/19	08/14/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1933012	08/13/19	08/14/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1933012	08/13/19	08/14/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		106 %	50-1.	50	1933012	08/13/19	08/14/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO/0	ORO								
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1933013	08/13/19	08/13/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1933013	08/13/19	08/13/19	EPA 8015D	
Surrogate: n-Nonane		108 %	50-20	00	1933013	08/13/19	08/13/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1933012	08/13/19	08/14/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		92.1 %	50-1.	50	1933012	08/13/19	08/14/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	142	20.0	mg/kg	1	1933014	08/13/19	08/14/19	EPA 300.0/9056A	

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BP America Production Co. Project Name: GCU 89E
PO Box 22024 Project Number: 03143-0424
Tulsa OK, 74121-2024 Project Manager: Steve Moskal

Reported: 08/15/19 14:02

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1933012 - Purge and Trap EPA 5030A										
Blank (1933012-BLK1)				Prepared: (08/13/19 1 A	Analyzed: 0	8/14/19 1			
Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
p,m-Xylene	ND	0.0500	"							
o-Xylene	ND	0.0250	"							
Total Xylenes	ND	0.0250	"							
Surrogate: 4-Bromochlorobenzene-PID	8.50		"	8.00		106	50-150			
LCS (1933012-BS1)				Prepared: (08/13/19 1 A	Analyzed: 0	8/14/19 1			
Benzene	4.91	0.0250	mg/kg	5.00		98.2	70-130			
Toluene	4.90	0.0250	"	5.00		98.0	70-130			
Ethylbenzene	4.90	0.0250	"	5.00		98.0	70-130			
p,m-Xylene	9.98	0.0500	"	10.0		99.8	70-130			
o-Xylene	4.90	0.0250	"	5.00		98.0	70-130			
Total Xylenes	14.9	0.0250	"	15.0		99.2	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.61		"	8.00		108	50-150			
Matrix Spike (1933012-MS1)	Sou	rce: P908028-	01	Prepared: (08/13/19 1 A	Analyzed: 0	8/14/19 1			
Benzene	4.64	0.0250	mg/kg	5.00	ND	92.8	54.3-133			
Toluene	4.63	0.0250	"	5.00	ND	92.7	61.4-130			
Ethylbenzene	4.63	0.0250	"	5.00	ND	92.6	61.4-133			
p,m-Xylene	9.47	0.0500	"	10.0	ND	94.6	63.3-131			
o-Xylene	4.63	0.0250	"	5.00	ND	92.6	63.3-131			
Total Xylenes	14.1	0.0250	"	15.0	ND	94.0	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	8.62		"	8.00		108	50-150			
Matrix Spike Dup (1933012-MSD1)	Sou	rce: P908028-	01	Prepared: (08/13/19 1 <i>A</i>	Analyzed: 0	8/14/19 1			
Benzene	4.81	0.0250	mg/kg	5.00	ND	96.2	54.3-133	3.57	20	
Toluene	4.79	0.0250	"	5.00	ND	95.7	61.4-130	3.24	20	
Ethylbenzene	4.80	0.0250	"	5.00	ND	95.9	61.4-133	3.50	20	
p,m-Xylene	9.78	0.0500	"	10.0	ND	97.8	63.3-131	3.32	20	
o-Xylene	4.79	0.0250	"	5.00	ND	95.8	63.3-131	3.36	20	
Total Xylenes	14.6	0.0250	"	15.0	ND	97.2	63.3-131	3.33	20	
	8.62		"							

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Project Name:

GCU 89E

PO Box 22024

Project Number:

03143-0424

Reported:

Tulsa OK, 74121-2024 Project Manager:

Steve Moskal

08/15/19 14:02

Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1933013 - DRO Extraction EPA 3570										
Blank (1933013-BLK1)				Prepared &	Analyzed:	08/13/19 1				
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	57.6		"	50.0		115	50-200			
LCS (1933013-BS1)				Prepared &	Analyzed:	08/13/19 1				
Diesel Range Organics (C10-C28)	522	25.0	mg/kg	500		104	38-132			
Surrogate: n-Nonane	55.0		"	50.0		110	50-200			
Matrix Spike (1933013-MS1)	Sour	rce: P908028-	01	Prepared &	Analyzed:	08/13/19 1				
Diesel Range Organics (C10-C28)	501	25.0	mg/kg	500	ND	100	38-132			
Surrogate: n-Nonane	52.2		"	50.0		104	50-200			
Matrix Spike Dup (1933013-MSD1)	Sour	rce: P908028-	01	Prepared &	Analyzed:	08/13/19 1				
Diesel Range Organics (C10-C28)	507	25.0	mg/kg	500	ND	101	38-132	1.18	20	
Surrogate: n-Nonane	52.2		"	50.0		104	50-200			

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BP America Production Co. PO Box 22024

Tulsa OK, 74121-2024

Project Name:

GCU 89E

Project Number: 03143-0424 Project Manager: Steve Moskal **Reported:** 08/15/19 14:02

Nonhalogenated Organics by 8015 - GRO - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD			
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes		
Batch 1933012 - Purge and Trap EPA 5030A												
Blank (1933012-BLK1)				Prepared: 08/13/19 1 Analyzed: 08/14/19 1								
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg									
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.47		"	8.00		93.4	50-150					
LCS (1933012-BS2)				Prepared: (08/13/19 1 A	8/14/19 1						
Gasoline Range Organics (C6-C10)	46.4	20.0	mg/kg	50.0		92.8	70-130					
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.51		"	8.00		93.8	50-150					
Matrix Spike (1933012-MS2)	Sour	ce: P908028-	01	Prepared: (
Gasoline Range Organics (C6-C10)	43.2	20.0	mg/kg	50.0	ND	86.4	70-130					
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.54		"	8.00		94.3	50-150					
Matrix Spike Dup (1933012-MSD2)	01	Prepared: (08/13/19 1 A	Analyzed: 0	8/14/19 1							
Gasoline Range Organics (C6-C10)	48.5	20.0	mg/kg	50.0	ND	96.9	70-130	11.5	20			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.46		"	8.00		93.2	50-150					

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BP America Production Co. Project Name: GCU 89E

PO Box 22024 Project Number: 03143-0424 Reported:
Tulsa OK, 74121-2024 Project Manager: Steve Moskal 08/15/19 14:02

Anions by 300.0/9056A - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD						
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes					
Batch 1933014 - Anion Extraction EPA 300.0/9056A															
Blank (1933014-BLK1)	Prepared & Analyzed: 08/13/19 1														
Chloride	ND	20.0	mg/kg												
LCS (1933014-BS1)				Prepared & Analyzed: 08/13/19 1											
Chloride	265	20.0	mg/kg	250		106	90-110								
Matrix Spike (1933014-MS1)	sike (1933014-MS1) Source: P908028-01						Prepared: 08/13/19 1 Analyzed: 08/14/19 1								
Chloride	268	20.0	mg/kg	250	ND	107	80-120								
Matrix Spike Dup (1933014-MSD1)	Sourc	e: P908028-	01	Prepared: (08/13/19 1 A	Analyzed: 0	8/14/19 1								
Chloride	268	20.0	mg/kg	250	ND	107	80-120	0.321	20						

QC Summary Report

Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values my differ slightly.

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24 Hour Emergency Response Phone (800) 362-1879 Labadmin@envirotech-inc.com



Project Name: BP America Production Co.

GCU 89E PO Box 22024 Project Number: 03143-0424 Tulsa OK, 74121-2024 Project Manager: Steve Moskal

Reported: 08/15/19 14:02

Notes and Definitions

DET Analyte DETECTED

Analyte NOT DETECTED at or above the reporting limit ND

Not Reported NR

RPD Relative Percent Difference

Methods marked with ** are non-accredited methods.

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Project Information

Page ____ of ___

Client: BPX ENERGY							Report Attention				L	ab U	Use Only				AT	E	PA Progra	gram	
Project:							Report due by: 8/14/2019			Lab WO# P 908028				Joh Number				RCRA	CWA	SDWA	
Address	Project Manager: STEVE MOSKAL Attention: Steve Moskal J.							BLA66	P40803			6	031	43-	3-0424				1		
City, State, Zip							Address:						Analysis and Metho						State		
Phone:							City, State, Zip				ĺ	ł							NM CO	UT AZ	
Email:							Phone:			GRO/DRO by 8015	121	09							X		
Erran.							Email:						0	0.0					TX` OK		
Time	Date	T	T	<u> </u>					8	080	8 8	/ 82(601	Je 30				ĺ			
Sampled	Sampled	Matrix	No Containers	Sample II)			Lab Number	DRO/ORO by 8015	80/7	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0				ŀ	Rem	narks	
1775 8/2/					_		Number	<u> </u>	$\overline{}$	<u>~~</u>	>	Σ	ō		┼	\vdash		- 80.2			
1335	8/12/19	SOIL	1	Som	WALL		I) EAST BASE	(X	X	X			X							
1338							E) SE Corner Wall	2	1												
1342							Soury MID Wall	3						\top						-	
1345								4						$\dagger \dagger$							
1350				1	1 (-	WEST BASE SW Corner Wall	5	+	+	\dashv		-	+		-					
0 -				SOUTH (L)AU (.	CI,) SW Corner Wall	()	\perp	\perp	1			$\perp \downarrow$							
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A -l -l'a'	-11	-	7 70	1 3													- 1				
Additiona	al Instruct	ions:	SILL BY	(- 12	UJECT	70) FOR GCU 89E								1 1-	a)					
, (field sampler), attest to the validity and authenticity of this sample. I am aware that tr				at tar	npering with or intentionally mislabelling the sample loca				- 19	Samples requiring thermal preservation must be received on ice the day they are sampled or											
l, (field sampler), attest to the validity and authenticity of this sample. I am aware that ta time of collection is considered fraud and may be grounds for legal action. Sampled by:						by:							received packed in ice at an avg temp above 0 but less than 6'C on subsequent days.								
Relinquished by: (Signature) Date 8/13/2019 Time 8/13/2019								19 Time 15'00			Received on ice: Lab Use Only							26(2)			
Relinquished by: (Signature) Date Time			-	Received by: (Signature) Date		Time															
Relinquished by: (Signature) Date Time			-	Received by: (Signature)	Date		Time			T1 T2 T3											
				Neceived by, (signature)		lime				AVG Temp °C											
	c: S - Soil, Sd -							Container T	ype:	g - g	ass. n	- nol	v/plas	tic a	g - amhe	r glass	. v - \/	OA			
Note: Sample: only to those:	s are discarder samples receiv	d 30 days afte	er results are	reported unli	ess other a	of th	gements are made. Hazardous samples will be retu e laboratory is limited to the amount paid for on th	irned to client i	or disp	osed o	f at the	client	expens	e. The	report for	he ana	ysis of t	the above sa	mples is applic	cable	
			•	2 32		3. 41	paid for on the	ie report.													



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