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	nVF1906629584
District RP	3RP-13662
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: BPX Energy	OGRID: 778	**Initial & Remedial Action Update**
Contact Name: Steve Moskal	Contact Telephone: (505) 330-9179	
Contact email: steven.moskal@bpx.com	Incident # *(assigned by OCD)*	
Contact mailing address: 1199 Main Ave, Suite 101, Durango CO, 81301		

Location of Release Source

Latitude: 36.65747° Longitude: -108.12239°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Gallegos Canyon Unit 215	Site Type: Natural Gas Production Well Pad
Date Release Discovered: August 20, 2012	API#: 30-045-11622

Unit Letter	Section	Township	Range	County
M	16	T28N	R12W	San Juan

Surface Owner: ☐ State ☐ Federal ☒ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls): Unknown	Volume Recovered (bbls):
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls):	Volume Recovered (bbls): 0 bbls
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release:

Hydrocarbon impacted soils detected by physical odor and gray to black discoloration observed during below-grade tank (BGT) confirmation sampling event, 8/20/2012. No samples collected. BP notified that impacts most likely categorized as a major release and an immediate verbal notification required to the New Mexico Oil Conservation Division (NMOCD). Potential groundwater observed and estimated at
approximately 13-14 feet (ft.) below grade

State of New Mexico
Oil Conservation Division

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Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.

☒ The impacted area has been secured to protect human health and the environment.

☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

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: Steve Moskal Title: Environmental Coordinator

Signature:  Date: February 28, 2019

email: Steven.moskal@bpx.com Telephone: (505) 330-9179

OCD Only

Received by: Vanessa Fields Date: 3/7/2019

State of New Mexico
Oil Conservation Division

Incident ID	
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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?	5 (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.

Characterization Report Checklist: ***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 (Investigation performed prior to 2018 Spill Rule Update)
☒ 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

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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: Steve Moskal Title: Environmental Coordinator

Signature:  Date: February 28, 2019

email: steven.moskal@bpx,com Telephone: (505) 330-9179

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

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Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

☒ Detailed description of proposed remediation technique
☒ Scaled sitemap with GPS coordinates showing delineation points
☒ Estimated volume of material to be remediated
☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

Offsite, Tribal, access has not been obtained to complete remediation of very thin layer of subsurface soil impacts.

State of New Mexico
Oil Conservation Division

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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.

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

☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☐ Laboratory analyses of final sampling (Note: appropriate 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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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: _____

Printed Name: _____ Title: _____

BP AMERICA PRODUCTION COMPANY

Historical Release discovered beneath 95 barrel Below-grade Tank
GALLEGOS CANYON UNIT 215

API #: 30-045-11622

Legal Description: (Unit Letter M, Sec. 16 -T28N -R12W, NMPM)

CHRONOLOGICAL EVENT SUMMATION

1. **August 20, 2012**: Hydrocarbon impacted soils detected by physical odor and gray to black discoloration observed during below-grade tank (**BGT**) confirmation sampling event. No samples collected. BP notified that impacts most likely categorized as a major release and an immediate verbal notification required to the New Mexico Oil Conservation Division (**NMOCD**). Potential groundwater observed and estimated at approximately 13-14 feet (**ft.**) below grade (**B.G.**).

2. **September 2012**: Remediation of impacted soils via excavation initiated near BGT area.

3. **September 6, 2012**: Sampling of excavation sidewalls conducted. Excavation dimensions approximately 55 ft. X 43 ft. X 11-12 ft. depth. Test hole (TH-NE) advanced approximately 65 ft. east-northeast of excavated area to 9 ft. B.G. Based on findings, impacts appeared more extensive than preliminary estimation (see attached Field Report).

4. **September 20, 2012**: Three (3) test holes advanced southeast, east, and northeast of BGT to further evaluate lateral extent of impacts.

5. **July 8, 2013**: After receiving verbal approval from FIMO to assess off-site migration of impacts, lateral assessment via geoprobing to the north area of well pad was initiated.

6. **July 12, 2013**: Delineation investigation completed (see attached map & bore hole logs). Five (5) piezometers installed during investigation to determine groundwater gradient (approximately N27W direction).

7. **April 2014:** Second phase of soil remediation via excavation initiated after subsurface utilities were removed. No official or formal approval was given to BP from Federal Indian & Minerals Office (FIMO) to remove any off-site impacts.

8. **August 2014:** Cleanup of on-site impacted soils completed (see attached Table with field & lab results).

9. **October 20, 2014**: Three (3) groundwater monitor wells (MW#1, MW#2, MW#3) were installed using CME-95 mobile drill rig (see following aerial map and Bore / Test Hole Reports).

10. **October 21, 2014**: Two (2) groundwater monitor wells (MW#4 & MW#5) were installed using CME-95 mobile drill rig (see following aerial map and Bore / Test Hole Reports).

11. **January 16, 2015**: Development/purging of all five (5) groundwater monitor wells was conducted to 1) eliminate sediment accumulation during the installation process, and 2) determine/observe rudimentary recovery rates.

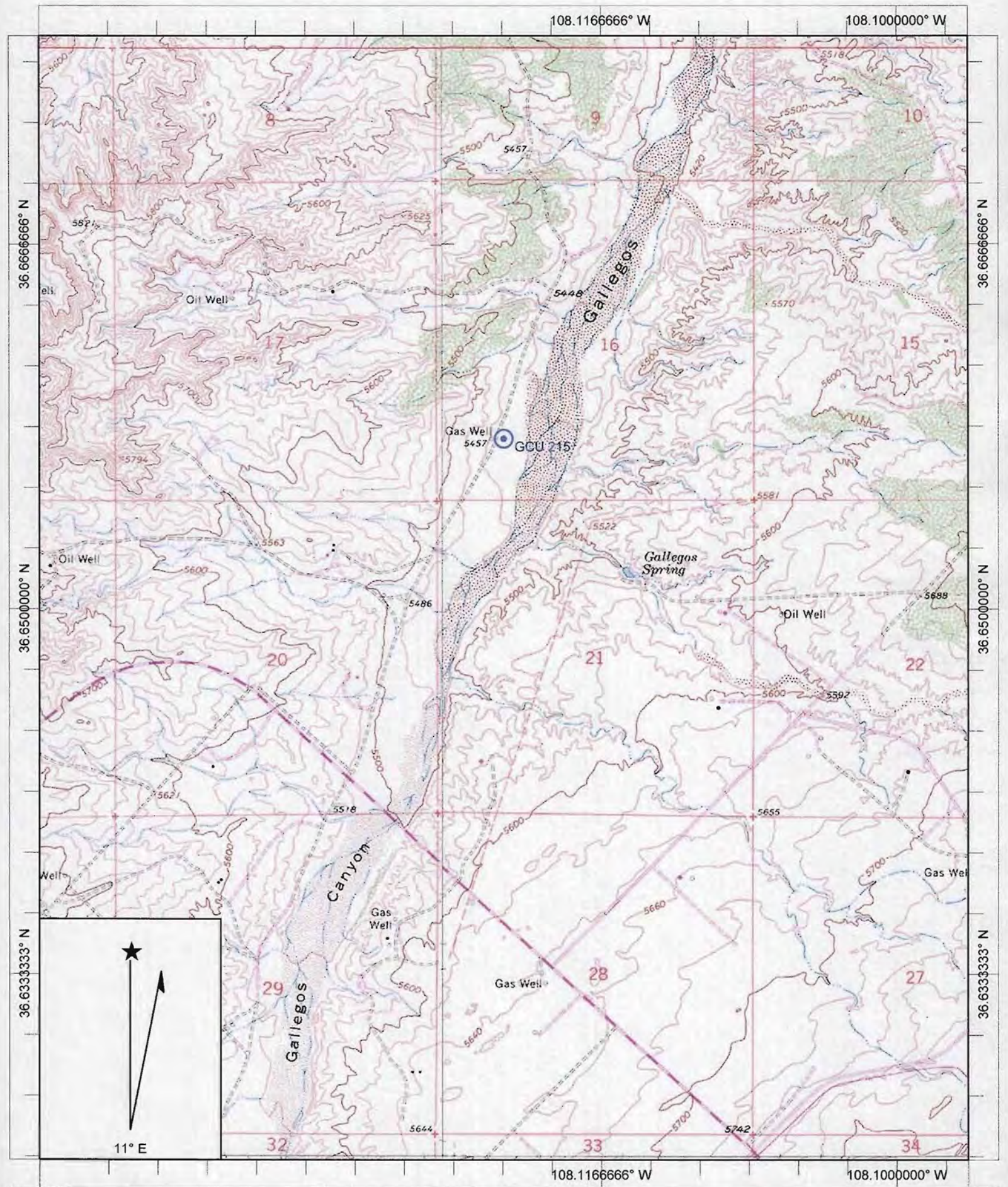
12. **January 28, 2015**: Completed initial sampling of groundwater monitor wells for BTEX and anion/cation balance per US EPA Method 300.1 as requested by New Mexico Oil Conservation Division's District III Aztec Office.

13. **September 14, 2015**: Survey of monitor well casing tops completed.

14. **September 26, 2017**: Last quarterly sampling event of groundwater monitor wells.

CONFIRMATION SAMPLING / INITIAL RELEASE INVESTIGATION

SEPTEMBER 2012



Name: HORN CANYON
Date: 1/9/2013
Scale: 1 inch equals 2000 feet

Location: 036.6505338° N 108.1221491° W
Caption: BP America Production Co.
GCU 215

CLIENT: BP

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

API #: 3004511622

TANK ID (if applicble): A

FIELD REPORT:

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

PAGE #: 1 of 1

SITE INFORMATION:

SITE NAME: GCU # 215

DATE STARTED: 09/06/12

DATE FINISHED:

QUAD/UNIT: M SEC: 16 TWP: 28N RNG: 12W PM: NM CNTY: SJ ST: NM

1/4 -1/4/FOOTAGE: 990'S / 1190'W SW/SW LEASE TYPE: FEDERAL / STATE / FEE / INDIAN

LEASE #: I-149-IND-8475 PROD. FORMATION: DK CONTRACTOR: ELKHORN MBF - C. ZELLITTI

ENVIRONMENTAL SPECIALIST(S): NV

REFERENCE POINT:

WELL HEAD (W.H.) GPS COORD.: 36.65776 X 108.12200 GL ELEV.: 5447'

		GPS COORD.	DISTANCE/BEARING FROM W.H.
1)	95 BBL BGT (DW/DB)	36.65747 X 108.12239	153', S46W
2)			
3)			
4)			

SAMPLING DATA:

CHAIN OF CUSTODY RECORD(S) # OR LAB USED: HALL

	SAMPLE ID:	SAMPLE DATE:	SAMPLE TIME:	LAB ANALYSIS:	OVM READING (ppm)
1)	2 @ 10'	09/06/12	1036	8015, 8021, 300.0 (Cl)	1,101
2)	3 @ 7'	09/06/12	1055	8015, 8021, 300.0 (Cl)	3,877
3)	TH-NE @ 7.5'	09/06/12	1152	8015, 8021, 300.0 (Cl)	489
4)	4PC-SW @ 4.5' - 7'	09/06/12	1130	8015, 8021, 300.0 (Cl)	NA

SOIL DESCRIPTION:

SOIL TYPE: SAND / SILTY SAND / SILT / SILTY CLAY / CLAY / GRAVEL / OTHER

SOIL COLOR: MOSTLY DARK YELLOWISH ORANGE TO MODERATE BROWN

COHESION (ALL OTHERS): NON COHESIVE / SLIGHTLY COHESIVE / COHESIVE / HIGHLY COHESIVE

PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC

CONSISTENCY (NON COHESIVE SOILS): LOOSE / FIRM / DENSE / VERY DENSE

DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARD

MOISTURE: DRY / SLIGHTLY MOIST / MOIST / WET / SATURATED / SUPER SATURATED

HC ODOR DETECTED: YES / NO EXPLANATION - WITHIN DISCOLORED SOILS ONLY.

SAMPLE TYPE: GRAB / COMPOSITE - # OF PTS. 4

DISCOLORATION/STAINING OBSERVED: YES / NO EXPLANATION - MEDIUM GRAY TO BLACK ALL SIDEWALLS BELOW 5' - 7' BELOW GRADE.

ANY AREAS DISPLAYING WETNESS: YES / NO EXPLANATION - GROUNDWATER EXPOSED AT APPROX. 11' - 12' BELOW GRADE.

APPARENT EVIDENCE OF A RELEASE OBSERVED AND/OR OCCURRED : YES / NO EXPLANATION : DOES NOT APPEAR TO BE FROM BGT, HISTORICAL.

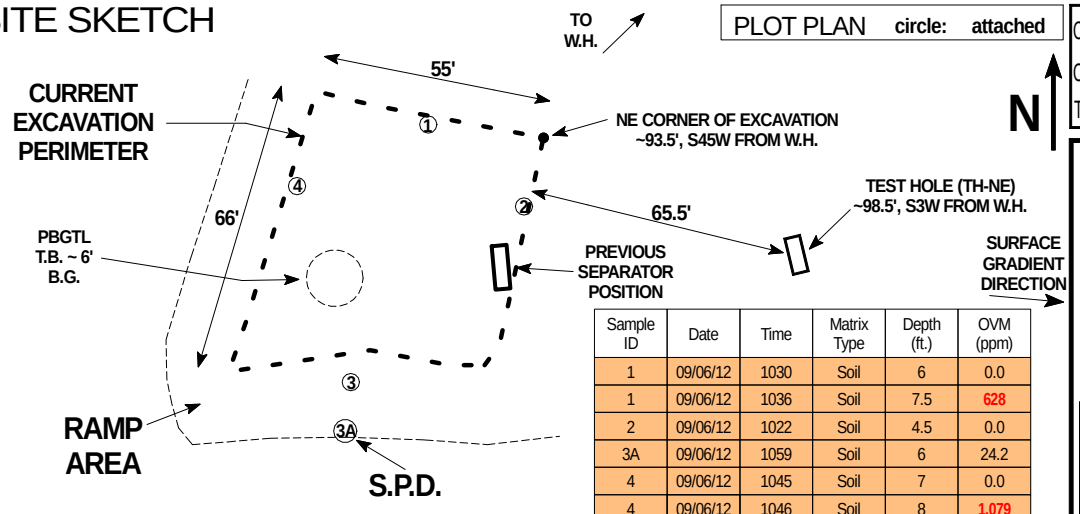
ADDITIONAL COMMENTS: TEST HOLE (TH-NE) ADVANCED TO 9' BELOW GRADE, DISCOLORED SOIL OBSERVED ~ 6.5' - 7' BELOW GRADE (sample at 7.5' contained strong hydrocarbon odor). LATERAL EXTENT STILL UNKNOWN, BUT APPEARS VERY EXTENSIVE IN ALL DIRECTIONS.

SOIL IMPACT DIMENSION ESTIMATION: _____ ft. X _____ ft. X _____ ft. IMPACTED SOIL ESTIMATION (Cubic Yards) :

DEPTH TO GROUNDWATER: 11'-12' NEAREST WATER SOURCE: >1,000' NEAREST SURFACE WATER: <1,000' NMOCD TPH CLOSURE STD: 100 ppm

SITE SKETCH

PLOT PLAN circle: attached



Sample ID	Date	Time	Matrix Type	Depth (ft.)	OVM (ppm)
1	09/06/12	1030	Soil	6	0.0
1	09/06/12	1036	Soil	7.5	628
2	09/06/12	1022	Soil	4.5	0.0
3A	09/06/12	1059	Soil	6	24.2
4	09/06/12	1045	Soil	7	0.0
4	09/06/12	1046	Soil	8	1,079

OVM CALIB. READ. = 52.2 ppm RF = 0.52

OVM CALIB. GAS = 100 ppm

TIME: 11:15 (am)/pm DATE: 09/06/12

MISCELL. NOTES

WO: N1557827

PO #: 78892

PK: 745510

PJ #: Z2-00690-C

Permit date(s): 06/10/10

OCD Appr. date(s): 04/17/12

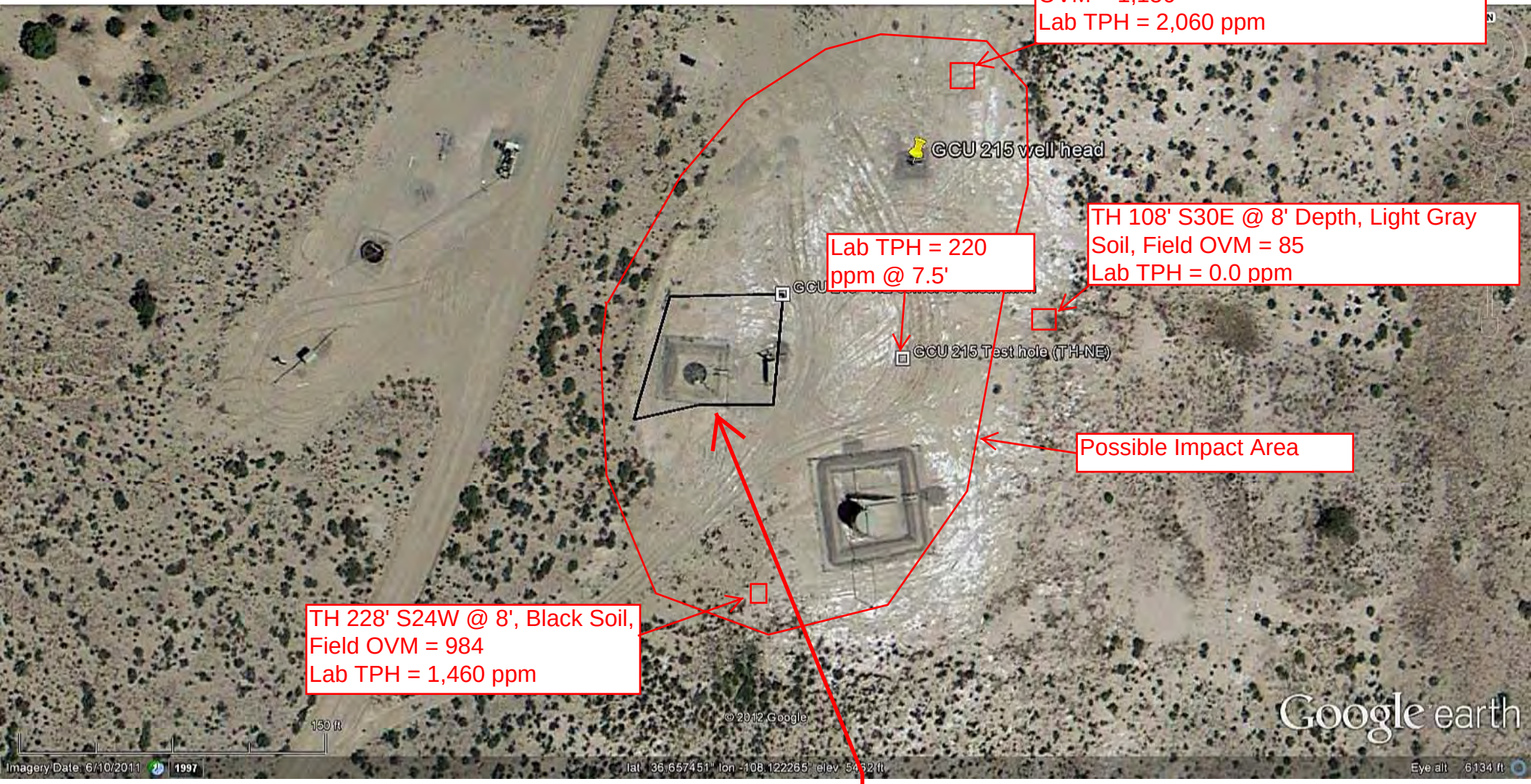
Tank ID	OVM = Organic Vapor Meter ppm = parts per million
A	BGT Sidewalls Visible: Y / (N)
	BGT Sidewalls Visible: Y / N
	BGT Sidewalls Visible: Y / N

Magnetic declination: 10° E

NOTES: BGT = BELOW-GRADE TANK; E.D. = EXCAVATION DEPRESSION; B.G. = BELOW GRADE; B = BELOW; T.H. = TEST HOLE; ~ = APPROX.; W.H. = WELL HEAD; T.B. = TANK BOTTOM; PBGTL = PREVIOUS BELOW-GRADE TANK LOCATION; SPD = SAMPLE POINT DESIGNATION; R.W. = RETAINING WALL; NA - NOT APPLICABLE OR NOT AVAILABLE; SW - SINGLE WALL; DW - DOUBLE WALL; SB - SINGLE BOTTOM; DB - DOUBLE BOTTOM.

TRAVEL NOTES: CALLOUT: _____ ONSITE: 08/20/12, 08/28/12, 08/29/12, 09/06/12

GCU #215 - Release Investigation (continued)
09/20/12




BP America Production Co.
GCU # 215
Unit Letter M, Section 16, T28N, R8W, NMPM
Imagery Date: 6/10/2011
Legend
95 bgt
Estimated Impact Area (~53,500 sq. ft.)
Geoprobe pt.
Line Measure to Piezometer
Piezometer installed within geoprobe pt.
Test Hole
Well Head
GP-11
GP-10
GP-12
GP-09
GP-08
GP-07
GP-05
GP-06
GP-02
GP-04
GP-01
GP-03
PZ-24
GP-25
PZ-13
GP-26
TH52', N23E
GP-23
GP-14
GP-31
GP-22
PZ-27
GP-30
GP-28
GP-15
TH 108', S30E
GP-21
GCU 215 95 bgt
GP-16
GP-29
PZ-20
PZ-17
TH228', S24W
GP-19
GP-18
Google earth
© 2013 Google
N
200 ft

BP AMERICA PRODUCTION COMPANY

GCU # 215

Unit M, Sec. 16, T29N, R12W

Historical Release Discovered beneath 95 bbl Below-grade Tank

SAMPLE ID	SAMPLE DATE	SAMPLE TIME	GRAB / COMPOSITE	FIELD OVM READING (ppm)	TPH - gasoline range (ppm)	TPH - diesel range (ppm)	TPH - cumulative (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl - benzene (ppm)	Total Xylenes (ppm)	BTEX - cumulative (ppm)
2 @ 10'	09/06/12	1036	Grab	1,101	1,200	370	1,570	1.3	11.0	6.2	50	68.5
3 @ 7'	09/06/12	1055	Grab	3,877	1,200	1,000	2,200	ND	ND	3.5	43	46.5
TH-NE @ 7.5'	09/06/12	1152	Grab	NA	170	ND	170	0.43	ND	0.42	2.2	3.05
4PC-SW @ 4.5'-7'	09/06/12	1130	Comp.	NA	ND	ND	ND	ND	ND	ND	ND	ND
TH 228', S24W @ 8'	09/20/12	0945	Grab	984	510	950	1,460	ND	ND	ND	ND	ND
TH 108', S30E @ 7'	09/20/12	1015	Grab	85	ND	ND	ND	ND	ND	ND	ND	ND
TH 52', N23E @ 8'	09/20/12	1032	Grab	1,156	1,400	660	2,060	2.6	ND	15	160	177.6
GP-01 @ 6.5'-7'	07/08/13	0912	Grab	81.8	24	15	39	ND	ND	ND	ND	ND
GP-01 @ 9'-9.5'	07/08/13	0920	Grab	0.3	NA	NA	NA	NA	NA	NA	NA	NA
GP-02 @ 6.5'-7'	07/08/13	0945	Grab	0.4	ND	ND	ND	ND	ND	ND	ND	ND
GP-03 @ 6'-6.5'	07/08/13	1007	Grab	135	73	53	126	ND	ND	0.17	0.92	1.09
GP-04 @ 8'-9'	07/08/13	1031	Grab	136	2,000	860	2,860	ND	ND	14	180	194
GP-05 @ 8'-9'	07/08/13	1110	Grab	377	1,400	510	1,910	ND	ND	8.5	110	119
GP-06 @ 10'-11'	07/08/13	1410	Grab	0.0	NA	NA	NA	NA	NA	NA	NA	NA
GP-07 @ 7.5'-9'	07/08/13	1425	Grab	377	1,900	730	2,630	ND	ND	9.7	120	130
GP-08 @ 10.5'-12'	07/08/13	1455	Grab	419	ND	ND	ND	ND	ND	ND	ND	ND
GP-09 @ 7.75'-9'	07/09/13	0907	Grab	161	NA	NA	NA	NA	NA	NA	NA	NA
GP-10 @ 7'-8'	07/09/13	0938	Grab	156.1	310	120	430	ND	ND	ND	4.5	4.5
GP-11 @ 8'-9'	07/09/13	0907	Grab	19.7	NA	NA	NA	NA	NA	NA	NA	NA
GP-12 @ 7'-8'	07/09/13	0955	Grab	151	NA	NA	NA	NA	NA	NA	NA	NA
GP-13 @ 9'-12'	07/09/13	1128	Grab	0.0	NA	NA	NA	NA	NA	NA	NA	NA
GP-14 @ 6'-7'	07/09/13	1258	Grab	151	520	520	1,040	ND	ND	1.9	28	29.9
GP-15 @ 6'-7'	07/09/13	1332	Grab	0.4	ND	ND	ND	ND	ND	ND	ND	ND
GP-16 @ 7.5'-8'	07/09/13	1410	Grab	151	NA	NA	NA	NA	NA	NA	NA	NA
GP-17 @ 7'-8'	07/09/13	1505	Grab	151	220	130	350	ND	ND	0.45	5.1	5.55
GP-18 @ 7.5'-8'	07/10/13	0945	Grab	0.0	ND	ND	ND	NA	NA	NA	NA	NA
GP-19 @ 7.5'-8.5'	07/10/13	1029	Grab	0.0	ND	ND	ND	NA	NA	NA	NA	NA
GP-20 @ 9'-10'	07/10/13	1106	Grab	0.0	ND	ND	ND	NA	NA	NA	NA	NA
GP-21 @ 6.5'-7.5'	07/10/13	1207	Grab	0.0	ND	ND	ND	NA	NA	NA	NA	NA
GP-25 @ 7.5'-8'	07/12/13	0825	Grab	509	NA	NA	NA	NA	NA	NA	NA	NA
GP-25 @ 9.5'-10'	07/12/13	0829	Grab	145	NA	NA	NA	NA	NA	NA	NA	NA
GP-26 @ 5.5'-6.5'	07/12/13	0900	Grab	527	880	480	1,360	0.90	ND	4.6	58	63.5
GP-26 @ 9'-10'	07/12/13	0908	Grab	66.3	ND	ND	ND	NA	NA	NA	NA	NA
NMOCD RELEASE CLOSURE STANDARDS -				**100**	-	-	**100**	**10**	-	-	-	**50**

SAMPLE ID	SAMPLE DATE	SAMPLE TIME	GRAB / COMPOSITE	FIELD OVM READING (ppm)	TPH - gasoline range (ppm)	TPH - diesel range (ppm)	TPH - cumulative (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl - benzene (ppm)	Total Xylenes (ppm)	BTEX - cumulative (ppm)
GP-27 @ 6.5'-7.5'	07/12/13	0934	Grab	489	NA	NA	NA	NA	NA	NA	NA	NA
GP-27 @ 8'-9'	07/12/13	0943	Grab	418	76	300	376	ND	ND	2.0	21	23
GP-27 @ 10'-11'	07/12/13	0945	Grab	46.1	ND	5.8	5.8	NA	NA	NA	NA	NA
GP-28 @ 6.5'-7.5'	07/12/13	1010	Grab	632	NA	NA	NA	NA	NA	NA	NA	NA
GP-28 @ 8.5'-9.5'	07/12/13	1026	Grab	4.4	NA	NA	NA	NA	NA	NA	NA	NA
GP-29 @ 7'-8'	07/12/13	1243	Grab	922	170	370	540	ND	ND	ND	2.3	2.3
GP-29 @ 9'-10'	07/12/13	1245	Grab	4.4	ND	ND	ND	NA	NA	NA	NA	NA
GP-30 @ 6.5'-7'	07/12/13	1255	Grab	542	NA	NA	NA	NA	NA	NA	NA	NA
GP-30 @ 7'-8'	07/12/13	1300	Grab	328	NA	NA	NA	NA	NA	NA	NA	NA
GP-31 @ 7'-8'	07/12/13	1328	Grab	342	NA	NA	NA	NA	NA	NA	NA	NA
GP-31 @ 8'-9'	07/12/13	1338	Grab	329	210	69	279	0.50	4.6	1.4	15	21.5
GP-31 @ 10.5'-11'	07/12/13	1342	Grab	9.5	NA	NA	NA	NA	NA	NA	NA	NA
NMOCD RELEASE CLOSURE STANDARDS -				**100**	**-**	**-**	**100**	**10**	**-**	**-**	**-**	**50**

Notes:

OVM - Organic vapor meter or photo-ionization detector (PID).
TPH - Total petroleum hydrocarbons by US EPA Method 8015B.
BTEX - Benzene, toluene, ethylbenzene, total xylenes by US EPA Method 8021B.
ppm - Parts per million or milligram per kilogram (mg/Kg).
NA - Not available or applicable.
NMOCD - New Mexico Oil Conservation Division.

Installed 2 - 5' x 2" screen & 5' riser for piezometer in GP-13.
Installed 2 - 5' x 2" screen & 5' riser for piezometer in GP-17.
Installed 2 - 5' x 2" screen & 5' riser for piezometer in GP-20.
Installed 2 - 5' x 2" screen & 5' riser for piezometer in GP-24.
Installed 2 - 5' x 2" screen & 5' riser for piezometer in GP-27.

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 2 @ 10' (95)
Project: GCU #215
Collection Date: 9/6/2012 10:18:00 AM
Lab ID: 1209275-001
Matrix: SOIL
Received Date: 9/8/2012 11:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	370	10		mg/Kg	1	9/10/2012 9:30:10 AM
Surr: DNOP	93.9	77.6-140		%REC	1	9/10/2012 9:30:10 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	1200	25		mg/Kg	5	9/10/2012 2:07:09 PM
Surr: BFB	830	84-116	S	%REC	5	9/10/2012 2:07:09 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	1.3	0.25		mg/Kg	5	9/10/2012 2:07:09 PM
Toluene	11	0.25		mg/Kg	5	9/10/2012 2:07:09 PM
Ethylbenzene	6.2	0.25		mg/Kg	5	9/10/2012 2:07:09 PM
Xylenes, Total	50	2.0		mg/Kg	20	9/10/2012 11:41:56 PM
Surr: 4-Bromofluorobenzene	160	80-120	S	%REC	5	9/10/2012 2:07:09 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	45	30		mg/Kg	20	9/10/2012 12:56:35 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 3 @ 7' (95)
Project: GCU #215
Collection Date: 9/6/2012 10:55:00 AM
Lab ID: 1209275-002
Matrix: SOIL
Received Date: 9/8/2012 11:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	1000	100		mg/Kg	10	9/10/2012 12:02:09 PM
Surr: DNOP	0	77.6-140	S	%REC	10	9/10/2012 12:02:09 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	1200	100		mg/Kg	20	9/10/2012 2:36:00 PM
Surr: BFB	521	84-116	S	%REC	20	9/10/2012 2:36:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.50		mg/Kg	20	9/10/2012 2:36:00 PM
Toluene	ND	1.0		mg/Kg	20	9/10/2012 2:36:00 PM
Ethylbenzene	3.5	1.0		mg/Kg	20	9/10/2012 2:36:00 PM
Xylenes, Total	43	2.0		mg/Kg	20	9/10/2012 2:36:00 PM
Surr: 4-Bromofluorobenzene	132	80-120	S	%REC	20	9/10/2012 2:36:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	400	30		mg/Kg	20	9/10/2012 1:09:00 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 4PC-SW @ 4.5-7'
Project: GCU #215
Collection Date: 9/6/2012 11:30:00 AM
Lab ID: 1209275-003 **Matrix:** SOIL **Received Date:** 9/8/2012 11:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/10/2012 10:20:40 AM
Surr: DNOP	98.3	77.6-140		%REC	1	9/10/2012 10:20:40 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/11/2012 1:36:43 AM
Surr: BFB	109	84-116		%REC	1	9/11/2012 1:36:43 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	9/10/2012 3:33:34 PM
Toluene	ND	0.050		mg/Kg	1	9/10/2012 3:33:34 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/10/2012 3:33:34 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/10/2012 3:33:34 PM
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	9/10/2012 3:33:34 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	240	30		mg/Kg	20	9/10/2012 1:21:24 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: TH-NE @ 7.5'
Project: GCU #215
Collection Date: 9/6/2012 11:52:00 AM
Lab ID: 1209275-004 **Matrix:** SOIL **Received Date:** 9/8/2012 11:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/10/2012 10:45:48 AM
Surr: DNOP	100	77.6-140		%REC	1	9/10/2012 10:45:48 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	170	5.0		mg/Kg	1	9/10/2012 4:02:18 PM
Surr: BFB	1030	84-116	S	%REC	1	9/10/2012 4:02:18 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	0.43	0.050		mg/Kg	1	9/10/2012 4:02:18 PM
Toluene	ND	0.050		mg/Kg	1	9/10/2012 4:02:18 PM
Ethylbenzene	0.42	0.050		mg/Kg	1	9/10/2012 4:02:18 PM
Xylenes, Total	2.2	0.10		mg/Kg	1	9/10/2012 4:02:18 PM
Surr: 4-Bromofluorobenzene	159	80-120	S	%REC	1	9/10/2012 4:02:18 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	41	30		mg/Kg	20	9/10/2012 1:33:49 PM

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1209275**

14-Sep-12

Client: Blagg Engineering
Project: GCU #215

Sample ID	**MB-3668**	SampType:	**MBLK**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**3668**	RunNo:	**5415**					
Prep Date:	**9/10/2012**	Analysis Date:	**9/10/2012**	SeqNo:	**154533**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-3668**	SampType:	**LCS**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**3668**	RunNo:	**5415**					
Prep Date:	**9/10/2012**	Analysis Date:	**9/10/2012**	SeqNo:	**154534**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.2	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1209275**

14-Sep-12

Client: Blagg Engineering
Project: GCU #215

Sample ID	**MB-3669**	SampType:	**MBLK**	TestCode:	**EPA Method 8015B: Diesel Range Organics**
Client ID:	**PBS**	Batch ID:	**3669**	RunNo:	**5402**
Prep Date:	**9/10/2012**	Analysis Date:	**9/10/2012**	SeqNo:	**154019** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	11		10.00		111	77.6	140			

Sample ID	**LCS-3669**	SampType:	**LCS**	TestCode:	**EPA Method 8015B: Diesel Range Organics**
Client ID:	**LCSS**	Batch ID:	**3669**	RunNo:	**5402**
Prep Date:	**9/10/2012**	Analysis Date:	**9/10/2012**	SeqNo:	**154022** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	36	10	50.00	0	71.9	52.6	130			
Surr: DNOP	4.4		5.000		88.3	77.6	140			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1209275**

14-Sep-12

Client: Blagg Engineering
Project: GCU #215

Sample ID	**MB-3703**	SampType:	**MBLK**	TestCode:	**EPA Method 8015B: Diesel Range**					
Client ID:	**PBW**	Batch ID:	**3703**	RunNo:	**5423**					
Prep Date:	**9/11/2012**	Analysis Date:	**9/11/2012**	SeqNo:	**154966**	Units:	**%REC**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	1.2		1.000		118	79.5	166			

Sample ID	**LCS-3703**	SampType:	**LCS**	TestCode:	**EPA Method 8015B: Diesel Range**					
Client ID:	**LCSW**	Batch ID:	**3703**	RunNo:	**5423**					
Prep Date:	**9/11/2012**	Analysis Date:	**9/11/2012**	SeqNo:	**155418**	Units:	**%REC**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.49		0.5000		97.1	79.5	166			

Sample ID	**LCSD-3703**	SampType:	**LCSD**	TestCode:	**EPA Method 8015B: Diesel Range**					
Client ID:	**LCSS02**	Batch ID:	**3703**	RunNo:	**5423**					
Prep Date:	**9/11/2012**	Analysis Date:	**9/11/2012**	SeqNo:	**155419**	Units:	**%REC**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.42		0.5000		84.4	79.5	166	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Chain-of-Custody Record

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

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

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

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush COMPLETE BY 09/10/2012

Project Name: **GCU #215**

Project #:

Project Manager: **NELSON VELEZ**

Sampler: **NELSON VELEZ**

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.8°C

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1209273	BTEX + MTBE + TMB's (8021B)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO3, NO2, PO4, SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (300.0)		Grab sample	4 pt. composite sample
9/6/12	1018	SOIL	2 @ 10' (95)	4 oz. - 1	Cool	-001	✓		✓									✓		✓	
9/6/12	1055	SOIL	3 @ 7' (95)	4 oz. - 1	Cool	-002	✓		✓									✓		✓	
9/6/12	1130	SOIL	4PC - SW @ 4.5 - 7'	4 oz. - 1	Cool	-003	✓		✓									✓			✓
9/6/12	1152	SOIL	TH - NE @ 7.5'	4 oz. - 1	Cool	-004	✓		✓									✓		✓	

Date	Time	Relinquished by:	Received by:	Date	Time
9/7/12	940		Christine Walters	9/7/12	940
9/7/12	1621	Christine Walters		9/8/12	11:15

Remarks: **TPH (8015B) - GRO & DRO ONLY.**

BILL DIRECTLY TO BP:
Jeff Peace, 200 Energy Court, Farmington, NM 87401

Work Order: N1557827 Paykey: 745510

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.

Chain-of-Custody Record

Client: BLAGG ENGINEERING INC.
BP AMERICA
Mailing Address: P.O. BOX 87
BLOOMFIELD NM 87413
Phone #: 505-632-1199
email or Fax#:
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 5-DAYS
Project Name: GCU 215
Project #:
Project Manager: J. BLAGG
Sampler: J. BLAGG
On Ice: ☒ Yes ☐ No
Sample Temperature: 2.1

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1209930	BTEX + ~~MTBE + TMB's~~ (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
9/20/12	0945	SOIL	TH 228'S 24W @ 8'	4 oz x 1	COOL	-001	X		X									
"	1015	"	TH 108'S 30E @ 7'	"	"	-002	X		X									
"	1032	"	TH 52'N 23E @ 8'	"	"	-003	X		X									

Remarks: GRO + DRO ON 8015 B
BILL BP: WORKORDER: N1557827
PARKER: ZSCHWILBGT
CONTACT: JEFF PEACE

Date:	Time:	Relinquished by:	Received by:	Date	Time
9/20/12	1402			9/20/12	1402
9/20/12	1751			9/21/12	1000

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1209275**

14-Sep-12

Client: Blagg Engineering
Project: GCU #215

Sample ID	**MB-3657**	SampType:	**MBLK**		TestCode:	**EPA Method 8015B: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**3657**		RunNo:	**5409**				
Prep Date:	**9/7/2012**	Analysis Date:	**9/10/2012**		SeqNo:	**154770**	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	1000		1000		102	84	116			

Sample ID	**LCS-3657**	SampType:	**LCS**		TestCode:	**EPA Method 8015B: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**3657**		RunNo:	**5409**				
Prep Date:	**9/7/2012**	Analysis Date:	**9/10/2012**		SeqNo:	**154771**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	74	117			
Surr: BFB	1100		1000		106	84	116			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1209275**

14-Sep-12

Client: Blagg Engineering
Project: GCU #215

Sample ID	**MB-3657**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID:	**3657**	RunNo:	**5409**					
Prep Date:	**9/7/2012**	Analysis Date:	**9/10/2012**	SeqNo:	**154791**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	**LCS-3657**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID:	**3657**	RunNo:	**5409**					
Prep Date:	**9/7/2012**	Analysis Date:	**9/10/2012**	SeqNo:	**154792**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.050	1.000	0	94.4	76.3	117			
Toluene	0.97	0.050	1.000	0	96.9	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	77	116			
Xylenes, Total	3.1	0.10	3.000	0	102	76.7	117			
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1209275

Received by/date: AT 09/08/12

Logged By: **Anne Thorne** 9/8/2012 11:15:00 AM Anne Thorne

Completed By: **Anne Thorne** 9/10/2012 Anne Thorne

Reviewed By: MG 09/10/12

Chain of Custody

1. Were seals intact? Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.8	Good	Yes			

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: TH 228'S 24W @ 8'
Project: GCU 215
Collection Date: 9/20/2012 9:45:00 AM
Lab ID: 1209930-001
Matrix: SOIL
Received Date: 9/21/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	950	9.8		mg/Kg	1	9/23/2012 10:03:58 PM
DNOP	122	77.6-140		mg/Kg	1	9/23/2012 10:03:58 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	510	240		mg/Kg	50	9/27/2012 6:07:07 PM
BFB	167	84-116	S	mg/Kg	50	9/27/2012 6:07:07 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.96		mg/Kg	20	9/26/2012 11:56:39 PM
Toluene	ND	0.96		mg/Kg	20	9/26/2012 11:56:39 PM
Ethylbenzene	ND	0.96		mg/Kg	20	9/26/2012 11:56:39 PM
Xylenes, Total	ND	1.9		mg/Kg	20	9/26/2012 11:56:39 PM
4-Bromofluorobenzene	110	80-120		mg/Kg	20	9/26/2012 11:56:39 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: TH 108'S 30E @ 7'
Project: GCU 215
Collection Date: 9/20/2012 10:15:00 AM
Lab ID: 1209930-002
Matrix: SOIL
Received Date: 9/21/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/23/2012 10:53:58 PM
DNOP	104	77.6-140		mg/Kg	1	9/23/2012 10:53:58 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/27/2012 6:35:55 PM
BFB	108	84-116		mg/Kg	1	9/27/2012 6:35:55 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.049		mg/Kg	1	9/27/2012 12:54:01 AM
Toluene	ND	0.049		mg/Kg	1	9/27/2012 12:54:01 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/27/2012 12:54:01 AM
Xylenes, Total	ND	0.098		mg/Kg	1	9/27/2012 12:54:01 AM
4-Bromofluorobenzene	97.6	80-120		mg/Kg	1	9/27/2012 12:54:01 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: TH 52'N 23E @ 8'
Project: GCU 215
Collection Date: 9/20/2012 10:32:00 AM
Lab ID: 1209930-003
Matrix: SOIL
Received Date: 9/21/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	660	9.7		mg/Kg	1	9/23/2012 11:19:06 PM
DNOP	108	77.6-140		mg/Kg	1	9/23/2012 11:19:06 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	1400	480		mg/Kg	100	9/27/2012 7:04:41 PM
BFB	133	84-116	S	mg/Kg	100	9/27/2012 7:04:41 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	2.6	0.96		mg/Kg	20	9/27/2012 1:22:43 AM
Toluene	ND	0.96		mg/Kg	20	9/27/2012 1:22:43 AM
Ethylbenzene	15	0.96		mg/Kg	20	9/27/2012 1:22:43 AM
Xylenes, Total	160	1.9		mg/Kg	20	9/27/2012 1:22:43 AM
4-Bromofluorobenzene	125	80-120	S	mg/Kg	20	9/27/2012 1:22:43 AM

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1209930**

01-Oct-12

Client: Blagg Engineering

Project: GCU 215

Sample ID **MB-3882**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID:	Batch ID: **3882**	RunNo: **5697**
Prep Date: **9/22/2012**	Analysis Date: **9/23/2012**	SeqNo: **163829** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
DNOP	11	0	10.00	0	109	77.6	140			

Sample ID **LCS-3882**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID:	Batch ID: **3882**	RunNo: **5697**
Prep Date: **9/22/2012**	Analysis Date: **9/23/2012**	SeqNo: **163830** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	35	10	50.00	0	69.6	52.6	130			
DNOP	4.7	0	5.000	0	93.5	77.6	140			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1209930**

01-Oct-12

Client: Blagg Engineering

Project: GCU 215

Sample ID **MB-3881**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID:	Batch ID: **3881**	RunNo: **5824**
Prep Date: **9/22/2012**	Analysis Date: **9/27/2012**	SeqNo: **167530** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
BFB	990	0	1000	0	99.3	84	116			

Sample ID **LCS-3881**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID:	Batch ID: **3881**	RunNo: **5824**
Prep Date: **9/22/2012**	Analysis Date: **9/27/2012**	SeqNo: **167531** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	74	117			
BFB	1000	0	1000	0	104	84	116			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1209930**

01-Oct-12

Client: Blagg Engineering

Project: GCU 215

Sample ID **MB-3881**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID:	Batch ID: **3881**	RunNo: **5783**
Prep Date: **9/22/2012**	Analysis Date: **9/26/2012**	SeqNo: **166796** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
4-Bromofluorobenzene	1.0	0	1.000	0	99.7	80	120			
m,p-Xylene	ND	0.050								
o-Xylene	ND	0.050								
1,2,4-Trimethylbenzene	0.0097	0.050								
1,3,5-Trimethylbenzene	0.0078	0.050								

Sample ID **LCS-3881**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID:	Batch ID: **3881**	RunNo: **5783**
Prep Date: **9/22/2012**	Analysis Date: **9/26/2012**	SeqNo: **166797** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.050	1.000	0	95.3	76.3	117			
Toluene	0.98	0.050	1.000	0	97.8	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	77	116			
Xylenes, Total	3.1	0.10	3.000	0	102	76.7	117			
4-Bromofluorobenzene	1.0	0	1.000	0	104	80	120			
m,p-Xylene	2.1	0.050								
o-Xylene	1.0	0.050								
1,2,4-Trimethylbenzene	1.0	0.050								
1,3,5-Trimethylbenzene	1.0	0.050								

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1209930

Received by/date: LM 09/21/12

Logged By: **Michelle Garcia** 9/21/2012 10:00:00 AM Michelle Garcia

Completed By: **Michelle Garcia** 9/21/2012 10:57:33 AM Michelle Garcia

Reviewed By: TO 09/21/12

Chain of Custody

1. Were seals intact? Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			

GEOPROBE

BORE HOLE LOGS

GP-1 through GP-31

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

GP-1

BORE / TEST HOLE REPORT

GP-1

BORING #..... BH - 1
MW #..... NA
PAGE #..... 1
DATE STARTED 07/08/13
DATE FINISHED 07/08/13
OPERATOR..... KP
LOGGED BY..... JCB

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG - GeoProbe
BORING LOCATION: 140 FEET, N27.5E FROM WELL HEAD.

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
				0'				GROUND SURFACE
1								Dry SAND/Silty SAND
2					0907		–	
3								
4				4'				
5								Silt 4'-5'
								CLAY 5'-6'
6					0912			COARSE SAND 6'-8', Water Saturated, Gray
7				8'				SAMPLE COLOR: 6½'-7' FOR OVM = 81.8 LAB
8				8'				COARSE SAND, V. Lite Gray, Water Saturated
9								
10					0920			SAMPLE 9'-9½' FOR OVM = 0.3
11				12'				
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

OVM CALIB:
54.2/100
@ 0927

GP-01

DRAWING: GCU 215 ~~BH-01~~ 07-08-13. SKF | DATE: 07/08/13 | DWN BY: NJV

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

GP-2

BORE / TEST HOLE REPORT

BORING # GP-2 ~~BH-1~~
MW # NA
PAGE # 2 X 1
DATE STARTED 07/08/13
DATE FINISHED 07/08/13
OPERATOR KP
LOGGED BY JCB

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG – GEOPROBE
BORING LOCATION: 181.5' FEET, N40E FROM WELL HEAD.

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
				0'				GROUND SURFACE
								SAND/Silty SAND, DRY
					0940			
				4'				
				4'				SAND to Coarse Sand, Water Saturated @ 6½'
					0945			Sample 6½'-7' for OVM. = 0.4 LAB
				8'				

GP-02

DRAWING: GCU 215 ~~BH-01~~ 07-08-13. SKF | DATE: 07/08/13 | DWN BY: NJV

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

GP-3

BORE / TEST HOLE REPORT

BORING # GP-3 ~~BH-1~~
MW # NA
PAGE # 3X
DATE STARTED 07/08/13
DATE FINISHED 07/08/13
OPERATOR KP
LOGGED BY JCB

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG — GEOPROBE
BORING LOCATION: 100 FEET, N28E FROM WELL HEAD.

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
				0'				GROUND SURFACE
1								SAND/Silty SAND, Dry.
2					1002			
3				4'				
4				4'				CLAY 4'-6', Likely Plastic
5					1007			6'-8' Silty to v. Sand, Water Saturated.
6								6'-6½' Sample for OVM = 135.0 LAB
7								
8				8'				
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

OVM CALIB
@ 1014
54.1/100

GP03

DRAWING: GCU 215 ~~BH-01~~ 07-08-13. SKF | DATE: 07/08/13 | DWN BY: NJV

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

GP-4

BORE / TEST HOLE REPORT

BORING #..... ~~BH-1~~ GP-4
MW #..... NA
PAGE #..... 1 X
DATE STARTED 07/08/13
DATE FINISHED 07/08/13
OPERATOR..... KP
LOGGED BY..... JCB

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG – GEOPROBE
BORING LOCATION: 119' FEET, N8°E FROM WELL HEAD.

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
				0'				GROUND SURFACE
1								DRY Silt - Silty Sand
2					1026			
3								
4				4'				
				4'				CLAY to Clay Silt Mix 4'-7½'
5					1031			7½'-8' SAND, Gray/Black, ODOR → Sample for OVM = 136 LAB
6								Water Saturated @ 7½'
7				8'				
8				8'				8'-9' SAND, Black, Strong HC Odor OVM = 136
9								
10					1035			9'-12' Silt to SAND Mix
11								
12				12'				
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

GP_04

DRAWING: GCU 215 ~~BH-01~~ 07-08-13. SKF | DATE: 07/08/13 | DWN BY: NJV

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

GP-5

BORE / TEST HOLE REPORT

BORING # GP-5 ~~BH-1~~
MW # NA
PAGE # 5X

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG - GEO PROBE
BORING LOCATION: 164 FEET, N6.5E FROM WELL HEAD.

DATE STARTED 07/08/13
DATE FINISHED 07/08/13
OPERATOR KP
LOGGED BY JCB

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
								GROUND SURFACE
1				0'				Silty SAND, Dry
2					1059			
3								
4				4'				
5				4'				Silt to silty clay, Lite/y moist
6					1102			Brown 4'-7 3/4'
7								Black 7 3/4'-8'
8				8'				
9				8'				SAND to silty SAND
10					1110			Black 8'-9' OVM=377 LAB
11								LiteGray 9'-12'
12				12'				
13								
14								
15								Install 5'x2" Screen + 5' Riser
16								For Piezometer.
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

OVM calib
51.0/100
1135

GP-05

DRAWING: GCU 215 ~~BH-01~~ 07-08-13. SKF | DATE: 07/08/13 | DWN BY: NJV

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

GP-6

BORE / TEST HOLE REPORT

BORING #..... ~~BH-1~~ GP-6
MW #..... NA
PAGE #..... 1 of 1
DATE STARTED 07/08/13
DATE FINISHED 07/08/13
OPERATOR..... KP
LOGGED BY..... JCB

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG w/ GEOPROBE
BORING LOCATION: 154' FEET, N14.5 FROM WELL HEAD.

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
				0'–4'				GROUND SURFACE Silty SAND - Dry
				4'–8'	1404			Likely Moist Silty SAND
				8'–12'	1410			8'-10' Silt to Silty Clay - TAN 10'-12' SAND, Water Saturated, Lite Gray SAmple 10'-11' for OVM = 0.0

GP-06

DRAWING: GCU 215 ~~BH-01~~ 07-08-13. SKF | DATE: 07/08/13 | DWN BY: NJV

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

GP-07

BORE / TEST HOLE REPORT

BORING # GP-7 ~~BH-1~~
MW # NA
PAGE # 1 ~~1~~

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG – GEOPROBE
BORING LOCATION: 201.5 FEET N8° E FROM WELL HEAD.

DATE STARTED 07/08/13
DATE FINISHED 07/08/13
OPERATOR KP
LOGGED BY JCB

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
				0				GROUND SURFACE
1								No Recovery
2								
3								
4				4'				
				4'				Silty SAND 4' - 7½'
5					1425			7½' - 8' SAND, Black, HC ODOR, V. Moist
6								
7								
8				8'				8' - 9' SAND, Black, HC ODOR. Saturated
9								9' - 11' SAND, V. Lite Gray.
10					1430			11' - 12' Silt/SAND Mixture.
11								
12				12'				
13								Submit 7½' - 9' for OVM = 384
14								& for LAB.
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

GP09

DRAWING: GCU 215 ~~BH-01~~ 07-08-13. SKF | DATE: 07/08/13 | DWN BY: NJV

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

GP-08

BORE / TEST HOLE REPORT

GP-8

BORING #..... BH - 1
MW #..... NA
PAGE #..... 8/1
DATE STARTED 07/08/13
DATE FINISHED 07/08/13
OPERATOR..... KP
LOGGED BY..... JCB

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG – GEOPROBE
BORING LOCATION: 238 FEET, N9E FROM WELL HEAD.

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
				0'				GROUND SURFACE
1								Dry Silty SAND
2					1448			
3								
4				4'				
5				4'				5'-6' Moist CLAY
6					1452			6'-8' Silty SAND, Moist, TAN
7								
8				8'				
9				8'				Recover 2'
10					1455			10'-10½' Silt, TAN
11								10½'-12' SAND to Silty Sand, Water Saturated, Lite Gray, OVM = 419
12				12'				LAB
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

OVM CALIB
1502
52.8/100

GP-08

DRAWING: GCU 215 BH-01 07-08-13. SKF | DATE: 07/08/13 | DWN BY: NJV

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(505) 632-1199

GP-9

BORE / TEST HOLE REPORT

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG - GEOPROBE
BORING LOCATION: FEET, FROM WELL HEAD. N

BORING #..... GP-3
MW #..... NA
PAGE #..... 9
DATE STARTED 7/9/13
DATE FINISHED 7/9/13
OPERATOR..... KP
LOGGED BY..... NJV

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
								GROUND SURFACE
1				0'				DRY SS
2								
3								
4				4'				
5				4'				5-6.5' CLAY, MOD. BRN., MOIST
6								6.5-7.75' SILT, PALE YELL. ORANGE,
7				8'				7.75-9' DK. GR. TO BLK SS-SC
8				8'	0907	161	-	
9								9'-10' LT. GRAY SAND, WET
10								10'-12' OLIVE GRAY SS-C, WET
11								
12				12'				
13								WILL RECORD BORING LOCATION
14								NEXT MORNING (MARKED W/
15								FLAGGING PIN)
16								
17								~272', NNE FR/ WELL HEAD.
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

CALIB.
55.6 ppm
TIME - 0909

DRAWING: | DATE: | DWN BY: NJV

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GP-10

BORE / TEST HOLE REPORT

BORING #..... GP-10
MW #..... NA
PAGE #..... 10
DATE STARTED 7/9/13
DATE FINISHED
OPERATOR..... KP
LOGGED BY..... NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG – GEOPROBE
BORING LOCATION: FEET, FROM WELL HEAD.

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
								GROUND SURFACE
1				0' – 4'				DRY SS
2								
3								
4								
5				4' – 8'	0938	156.1	–	5-6' DYO SS-SC, MOIST
6								6-7' MOD. BRN SS, SLIGHTLY MOIST
7								7-8' DK. GRAY TO BLK SS-SC, MOIST LAB
8								
9				8' – 12'				
10								9'-11' LT. GRAY SAND., SATUR.
11								11'-12' LT. GRAY CLAY, SATUR.
12								
13								
14								
15								
16								~300', NIZE FROM
17								
18								WILL RECORD BORING LOCATION
19								NEXT MORNING (MARKED W/
20								FLAGGING PIN).
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRAWING: DATE: DWN BY: NJV

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GP-11

BORE / TEST HOLE REPORT

BORING #..... GP-11
MW #..... NA
PAGE #..... 1 (
DATE STARTED 7/9/13
DATE FINISHED
OPERATOR..... KP
LOGGED BY..... NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG - GEOPROBE
BORING LOCATION: FEET, FROM WELL HEAD.

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
				0'				GROUND SURFACE
1								DRY SS
2								
3				4'				
4				4'				GAP 4'-5'
5								5'-6' DYO SAND TO SS, MOIST
6								6'-6.5' DYO SS-SC, MOIST
7				8'				6.5'-8' DYO SAND TO SS, MOIST
8				8'	1010	19.7	-	8'-9' - SAA
9								
10								9.5'-11' PYO SILT, WET TO SATUR.
11				12'				11'-12' LT. GRAY SAND, SATUR.
12								
13								
14								
15								WILL RECORD BORING LOCATION
16								NEXT MORNING & MARKED W/
17								FLAGGING PIN).
18								
19								
20								~ 311', N5.5E FROM WELL HEAD.
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRAWING: DATE: DWN BY: NJV

BLAGG ENGINEERING, INC.
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GP-12

BORE / TEST HOLE REPORT

BORING #..... GP-12
MW #..... NA
PAGE #..... 1Z
DATE STARTED 7/9/13
DATE FINISHED
OPERATOR..... KP
LOGGED BY..... NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG - GEOPROBE
BORING LOCATION: FEET, FROM WELL HEAD.

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
				0				GROUND SURFACE DRY SS
1								
2								
3				4				
4				4				4'-5' GAP
5								5-6' DYO SS-SC, MOIST
6								6-7' MOD. BRN SS, MOIST
7				8	0905	151	—	7'-8' LT. GRAY SS-SC, MOIST
8				8				8'-9' GAP
9								9'-11' VERY LITE GRAY SAND, SATUR-
10								11'-12' " " " SC, SATUR.
11								
12				12				
13								WILL RECORD BORING LOCATION NEXT MORNING (MARKED WITH FLAGGING PIN).
14								
15								
16								
17								~304', N18.5E FROM WELL HEAD
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRAWING: DATE: DWN BY: NJV

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GP-13

BORE / TEST HOLE REPORT

BORING #..... GP-13
MW #..... NA
PAGE #..... 13
DATE STARTED 7/9/13
DATE FINISHED
OPERATOR..... KP
LOGGED BY.....

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG – GEOPROBE
BORING LOCATION: FEET, FROM WELL HEAD. N W

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
								GROUND SURFACE
1				0'				OPEN 55
2								
3				4'				
4				4'				4-5' GAP
5								5'-5.5' DK. YELL. BRN SC-C, MOIST
6								5.5'-6.5' MOD. BRN SAND TO SS, MOIST
7								6.5'-8' " " TO LT. GRAY SAND, WET
8				8'				8'-9' GAP
9				8'	1128	0.0		9-12' LT. GRAY SAND, SATUR.
10								
11								
12				12'				
13								INSTALLED 2 - 5'X2" SLOTTED SCREEN
14								WITH 5'X2" CASING. CUT OFF 0.65'.
15								TOC ~1' A.G.S.
16								
17								DTW ~ 8.15' FR/TOC OR
18								~ 7.15' B.G.S.
19								TOT. LENG. OF PIPE = 14.35'
20								TD ~ 13.35' B.G.S.
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

WILL RECORD BORING LOCATION NEXT MORNING

~109' NGSE FROM WELL HEAD

TD – TOTAL DEPTH
DTW – DEPTH TO WATER
A.G.S. – ABOVE GROUND SURFACE
B.G.S. – BELOW " "
T.O.C. – TOP OF PVC CASING

DRAWING: DATE: DWN BY: NJV

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GP - 14

BORE / TEST HOLE REPORT

BORING #..... GP-14
MW #..... NA
PAGE #..... 1 4
DATE STARTED 7/9/13
DATE FINISHED
OPERATOR..... KP
LOGGED BY..... NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG
BORING LOCATION: 74.4 FEET, FROM WELL HEAD. S89W

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
								GROUND SURFACE
1				0				DRY SS
2				|			
3				4'				
4				4				4-5' GAP
5				|			5'-5.5' MOD. BRN SC-C MOIST
6					1258	151	6-7'	5.5'-6' " " SAND (6'-6.5') SA (5'-5.5')
7								7'-8' DK. GRAY TO BLK SAND, MOIST TO WET
8				8				8'-9' GAP
9				8'				9-10' OLIVE GRAY SS-SC, VERY MOIST TO WET
10				|			
11				12'				10'-12' " " SAND, SATR.
12								
13								
14								6.5'-7' SA (5.5'-6')
15								
16								
17								
18								
19								SA - SAME AS
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRAWING: DATE: DWN BY: NJV

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GP-15

BORE / TEST HOLE REPORT

BORING #..... GP-15
MW #..... NA
PAGE #..... 15
DATE STARTED 7/9/13
DATE FINISHED
OPERATOR..... KP
LOGGED BY..... NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG
BORING LOCATION: 115.4 FEET, FROM WELL HEAD. 539.5E (140.5°)

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
								GROUND SURFACE
1				0'				DRY 55
2								
3				4'				
4				4'				4-4.5' GAP
5								4.5-6' MOD. BRN SC-C, MOIST
6		LAB	→		1332	0.4	–	6'-7' PALE YELL. ORANGE SAND, VERY MOIST
7				8'				7-8' OLIVE GRAY SILT, WET TO SATUR.
8				8'				8-8.5' GAP
9								
10								8.5-12' LT. GRAY SAND, WET TO SATUR.
11								
12				12'				
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRAWING: DATE: DWN BY: NJV

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GP-16

BORE / TEST HOLE REPORT

BORING #..... GP-16
MW #..... NA
PAGE #..... 16
DATE STARTED 7/9/13
DATE FINISHED
OPERATOR..... KP
LOGGED BY..... NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG – GEOPROBE
BORING LOCATION: 136.5 FEET, FROM WELL HEAD. 2-55E (175°)

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
				0'				GROUND SURFACE
1								DRY 55
2								↓
3				4'				
4				4'				4-5.5' GAP
5								5.5'-6.5' MOD. BRN SC-C, MOIST
6								6.5'-7.5' " " SAND, MOIST
7				8'	1410	156.8	–	7.5'-8' MED. GRAY SILT, MOIST
8				8'				8-8.5' GAP
9								8.5'-12' OLIVE TO LT. GRAY SAND, WET TO SATUR.
10								
11								
12				12'				
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRAWING: | DATE: | DWN BY: NJV

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GP-17

BORE / TEST HOLE REPORT

BORING #..... GP-17
MW #..... NA
PAGE #..... 1 7
DATE STARTED 7/9/13
DATE FINISHED
OPERATOR..... KP
LOGGED BY..... NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG - GEOPROBE
BORING LOCATION: 180 FEET, FROM WELL HEAD. S 52W

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
								GROUND SURFACE
1				0'				DRY SS
2								
3				4'				
4				4'				4'-5' GAP
5								5-6.4' MOD. BRN SS-SC, MOIST
6								6.4'-6.8' PYO SAND, MOIST
7				8'				6.8'-7.5 LT. GRAY TO BLK SAND, MOIST
8					1505	157.1	7-8'	7.5-8.0 " " " SS-SC, MOIST
9				8'				8'-8.5' GAP
10								8.5'-9.5' LT. GRAY SAND, WET, HC ODOR
11								9.5'-12' LT. TO OLIVE GRAY SAND, SATUR., NO HC ODOR
12				12'				
13								
14								WILL INSTALL 2-5'X2" PVC SLOTTED
15								SCREEN & 1-5'X2" PVC CASING
16								WITH THREADED END CAP WITHIN
17								BORING ADVANCED.
18								
19								TOC ~ ' A.G.S.
20								
21								DTW ~ ' FR/TOC OR
22								~ ' B.G.S.
23								
24								TOT. LENG. OF PIPE = '
25								TD ~ ' B.G.S.
26								
27								
28								
29								
30								

WILL RECORD BORING LOCATION NEXT MORNING

N180', S2W FROM WELL HEAD.

TOC - TOP OF PVC CASING TD - TOTAL DEPTH
DTW - DEPTH TO WATER
AGS - ABOVE GROUND SURFACE
B.G.S. - BELOW " "

DRAWING: DATE: DWN BY: NJV

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(505) 632-1199

GP-18

BORE / TEST HOLE REPORT

BORING #..... GP-18
MW #..... NA
PAGE #..... 18
DATE STARTED 7/10/13
DATE FINISHED
OPERATOR..... KP
LOGGED BY..... NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG - GEOPROBE
BORING LOCATION: 237.5 FEET, S13.5W FROM WELL HEAD.

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
				0'				GROUND SURFACE
								DRY SS
				4'				4'-5' GAP
				4'				5'-6.5', MOD. BRN SS-SC, MOIST
								6.5'-7' " " SILT, MOIST
								7-7.5' SA (5'-6.5')
		LAB		8'	0945	0.0	7.5-8'	7.5'-8' PALE YELL. BRN SAND, MOIST
				8'				8'-9' GAP
								9-12' PALE YELL. BRN SAND, WET TO SATUR.
				12'				

CALIB.
100.0 PPM
TIME - 0900

DRAWING: DATE: DWN BY: NJV

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GP - 19

BORE / TEST HOLE REPORT

BORING #..... GP-19
MW #..... NA
PAGE #..... 19
DATE STARTED 7/10/13
DATE FINISHED
OPERATOR..... KP
LOGGED BY..... NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG
BORING LOCATION: 256.5 FEET, 527W FROM WELL HEAD.

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
								GROUND SURFACE
1				0'				DRY SS
2								↓
3				4'				
4				4'				4'-4.5' GAP
5								4.5-8' MOD. BRN SS-C, MOIST
6								
7			LAB	8'	1029	0.0	7.5-8.5'	
8				8'				8'-9' GAP
9								9'-9.5' SA (4.5'-8')
10								9.5-12' PALE YELL. ORANGE SAND, WET TO SATUR.
11				12'				
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRAWING: DATE: DWN BY: NJV

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GP-20

BORE / TEST HOLE REPORT

BORING #..... GP-20
MW #..... NA
PAGE #..... 20
DATE STARTED 7/10/13
DATE FINISHED
OPERATOR..... KP
LOGGED BY..... NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG
BORING LOCATION: 238' FEET, 539W FROM WELL HEAD.

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
				0'				GROUND SURFACE
1								DRY SS
2								↓
3				4'				
4				4'				4'-4.5' GRP
5								4.5-7.5 MOD. BRN SS-SC, MOIST
6								
7				8'				7.5'-8' PALE YELL. BRN SILT, DRY
8				8'				8'-9' GAP
9								
10					1106	0.0	9'-10'	9'-10' DK. YELL. BRN CLAY, MOIST
11								
12				12'				10'-12' PALE YELL. BRN SAND, WET TO SATUR.
13								
14								
15								INSTALLED 2 - 5' X 2" SLOTTED SCREEN
16								W/ 5' X 2" CASING
17								TOC ~ 1' A.G.S.
18								DTW = 10.62 FROM TOC OR
19								~ 9.62' B.G.S.
20								TOT. LENG. OF PIPE = 15.00'
21								TD ~ 14.00' B.G.S.
22								
23								
24								
25								TOC - TOP OF CASING
26								DTW - DEPTH TO WATER
27								A.G.S. - ABOVE GROUND SURFACE
28								B.G.S. - BELOW " "
29								T.D. - TOTAL DEPTH
30								

DRAWING: DATE: DWN BY: NJV

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

GP-21

BORE / TEST HOLE REPORT

BORING #..... GP-21
MW #.....
PAGE #.....
DATE STARTED
DATE FINISHED
OPERATOR..... KP
LOGGED BY..... NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG
BORING LOCATION: 200.2 FEET, S57.5W FROM WELL HEAD.

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
								GROUND SURFACE
1				0'				DRY SS
2								↓
3				4'				
4								4'-5.5' GAP
5				4'				5.5-6.5' MOD YELL. BRN SAND TO SS
6								
7				8'	1207	0.0	6.5+25	6.5'-8' PALE " " SILT
8								8' BEDROCK ~ 7' B.G.S.
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
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26								
27								
28								
29								
30								

DRAWING: DATE: DWN BY: NJV

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GP-22

BORE / TEST HOLE REPORT

BORING #..... GP-22
MW #..... NA
PAGE #..... 22
DATE STARTED 7/10/13
DATE FINISHED
OPERATOR..... KP
LOGGED BY..... NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG
BORING LOCATION: 159.4 FEET, 58ow FROM WELL HEAD.

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
								GROUND SURFACE

ADVANCED BORING USING CONVENTIONAL AUGERS.

COMPETENT BEDROCK SANDSTONE ENCOUNTERED @ 7' B.G.S.

GROUND ELEVATION ~ 8' ABOVE WELL PAD SURFACE.

NO SAMPLES COLLECTED.

DRAWING: DATE: DWN BY: NJV

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GP-23

BORE / TEST HOLE REPORT

BORING #..... GP-23
MW #..... NA
PAGE #..... 23
DATE STARTED 7/10/13
DATE FINISHED
OPERATOR..... KP
LOGGED BY..... NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG
BORING LOCATION: 128 FEET, S 80E FROM WELL HEAD.

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
				0'				GROUND SURFACE
								DRY SS
3				4'				BEDROCK (SANDSTONE) @ 3'
4				4'				USED AUGERS TO DETERMINE COMPETENCY @ 7'-8' B.G.S.
								NO SAMPLES COLLECTED.

DRAWING: DATE: DWN BY: NJV

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GP-24

BORE / TEST HOLE REPORT

BORING #..... GP-24
MW #..... NA
PAGE #..... 24
DATE STARTED 7/10/13
DATE FINISHED
OPERATOR..... KP
LOGGED BY..... NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG
BORING LOCATION: FEET, FROM WELL HEAD.

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
								GROUND SURFACE
1		WILL RECORD BORING						ATTEMPTED TO UTILIZE PUSH
2		LOCATION AFTER						TUBING FOR SAMPLE UNTIL
3		PIPING IS INSTALLED						REFUSAL @ 3' B.G.S.
4		TOMORROW MORNING.						
5								SWITCHED TO AUGERS
6								& DRILLED TO 20'.
7		~88', N22W FROM						
8		WELL HEAD						NO DISCOLORED SOILS
9								OBSERVED W/IN CUTTINGS.
10								
11								WILL SET 2" PVC W/IN
12								BORING FOR PIEZOMETER.
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRAWING: DATE: DWN BY: NJV

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GP-25

BORE / TEST HOLE REPORT

BORING #..... GP-25
MW #..... NA
PAGE #..... 25
DATE STARTED 7/12/13
DATE FINISHED
OPERATOR..... KP
LOGGED BY..... NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG - GEOPROBE
BORING LOCATION: 69 FEET, NW FROM WELL HEAD.

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
				0'				GROUND SURFACE
								DRY SS
				4'				
				4'				4'-6' GAP
								6'-7.6' MOD. BRN SC-C, MOIST
				8'	0825	509	7.5-8'	7.6-8' MED. TO DK. GRAY
				8'				8'-9.5' GAP
					0829	145	9.5'-10.5'	9.5-11.5' LT. OLIVE GRAY SAND, WET TO SATUR.
								10.5'-12' OLIVE GRAY SAND, SATUR.
				12'				

CALIB.
RF=1.00 101.6 ppm
TIME - 0823

DRAWING: | DATE: | DWN BY: NJV

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GP-26

BORE / TEST HOLE REPORT

BORING #..... GP-26
MW #..... NA
PAGE #..... 26
DATE STARTED 7/12/13
DATE FINISHED
OPERATOR..... KP
LOGGED BY..... NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG – GEOPROBE
BORING LOCATION: 60 FEET, N36E FROM WELL HEAD.

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
								GROUND SURFACE
1				0'				DRY SS
2								
3				4'				
4				4'				4'-5' GAP
5								5-5.5' OYO SS-SC, MOIST
6		LAB			0900	527	5.5'	5.5'-7' DK. GRAY SC-SILT, MOIST TO WET
7				8'			6.5'	7'-8' OLIVE GRAY SAND, WET TO SATUR.
8				8'				8'-9' GAP
9								
10		LAB			0908	66.3	9'-10'	9'-10' LT. TO OLIVE GRAY SILT, MOIST TO WET
11								10'-12' OLIVE GRAY SAND, SATUR.
12				12'				
13								
14								
15								
16								
17								
18								
19								
20								
21								
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30								

DRAWING: DATE: DWN BY: NJV

BLAGG ENGINEERING, INC.
P.O. BOX 87
BLOOMFIELD, NM 87413
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GP-27

BORE / TEST HOLE REPORT

BORING #..... GP-27
MW #..... NA
PAGE #..... 27
DATE STARTED 7/12/13
DATE FINISHED
OPERATOR..... KP
LOGGED BY..... NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG
BORING LOCATION: 42 FEET, S43E FROM WELL HEAD.

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
				0'				GROUND SURFACE
1								DRY SS
2				4'				
3								
4				4'				4-5' GAP
5								5-6' DYO SILT, MOIST
6								6'-6.5' DYO SILT TO CLAY MOIST T
7				8'			6.5'-	
8				8'	0934	489	7.5'	6.5-8' BLK TO DK GRAY CLAY TO SAND, MOIST
9		LAB			0943	418	8'-9'	8'-9' GAP
10								9-10' DK. GRAY SAND, WET
11		LAB		12'	0945	46.1	10'-11'	10'-10.5' OLIVE GRAY CLAY, SATUR.
12								10.5-12' " " SILT TO SAND, SATUR.
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
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27								
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DRAWING: DATE: DWN BY: NJV

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GP-28

BORE / TEST HOLE REPORT

BORING #..... GP-28
MW #..... NA
PAGE #..... 28
DATE STARTED 7/2/13
DATE FINISHED
OPERATOR..... KP
LOGGED BY..... NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG
BORING LOCATION: 88 FEET, S19.5E FROM WELL HEAD.

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
								GROUND SURFACE
1				0'				ORY SS
2								↓
3				4'				
4				4'				4'-5.5' GAP
5								5.5.-6.5' DYO TO PYO SILT, MOIST
6							6.5'	
7					1010	632	7.5'	6.5'-7.5'
8				8'				7.5'-8' LT. GRAY SAND, WET
9				8'				8'-8.5' GAP
10							8.5'	8.5'-9.5' OLIVE GRAY SAND, WET TO SATUR
11					1026	4.4	-	9.5'-9.75 " " SS-SC, SATUR.
12				12'			9.5'	9.75-12' " " SAND, "
13								
14								
15								INSTALLED 2-5'x2" PVC SLOTTED
16								SCREEN & 1-5'x2" CASING
17								TOC @ GRADE
18								CUT OFF
19								TOT. LENG. OF PIPE =
20								T.D. ~ ' B.G.S.
21								
22								
23								
24								TOC - TOP OF CASING
25								T.D. - TOTAL DEPTH
26								B.G.S. - BELOW GROUND SURFACE
27								
28								
29								
30								

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GP-29

BORE / TEST HOLE REPORT

BORING #..... GP-29
MW #..... NA
PAGE #..... 29
DATE STARTED 7/12/13
DATE FINISHED
OPERATOR..... KP
LOGGED BY..... NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG
BORING LOCATION: FEET, FROM WELL HEAD. SOUTH OF EXCAVATION

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
								GROUND SURFACE
1				0'				DRY SS
2								↓
3				4'				
4				4'				4'-4.5' GAP
5								4.5'-5.5' MOD. BRN CLAY, MOIST
6								5.5'-6' " " SILT, "
7				8'				" " CLAY, MOIST
8		LOB			1243	922	7'-8'	7'-8' DK. GRAY TO BLK SS-CLAY, MOIST
9				8'				8'-8.5' GAP
10								8.5'-9' OLIVE GRAY CLAY, MOIST
11		LOB		12'	1245	8.0	9-10'	9'-10' LT. TO OLIVE GRAY SAND, WET TO SATUR.
12								10'-12' PYO SAND, SATUR.
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
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DRAWING: DATE: DWN BY: NJV

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GP-30

BORE / TEST HOLE REPORT

BORING #..... GP-30
MW #..... NA
PAGE #..... 30
DATE STARTED 7/12/13
DATE FINISHED
OPERATOR..... KP
LOGGED BY..... NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG
BORING LOCATION: 191.5 FEET, 532.5W FROM WELL HEAD.

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
				0'				GROUND SURFACE
1								DRY SS
2								
3				4'				
4				4'				4'-5.5' GAP
5								5.5-6' mod. BRN CLAY, MOIST
6							6.5'-7'	6'-6.5' " " SILT, MOIST
7				8'	1255	542		6.5'-8' LT. GRAY TO BLK CLAY TO SAND,
8					1300	328	7'-8'	MOIST TO WET
9				8'				8'-9' GAP
10								9-9.5' SA (6.5'-8'), SATUR.
11								9.5-10' MED. GRAY SC, SATUR.
12				12'				10'-12' OLIVE GRAY SAND, SATUR.
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
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27								
28								
29								
30								

DRAWING: DATE: DWN BY: NJV

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GP-31

BORE / TEST HOLE REPORT

BORING #..... GP-31
MW #..... NA
PAGE #..... 31
DATE STARTED 7/12/13
DATE FINISHED
OPERATOR..... KP
LOGGED BY..... NJV

CLIENT: BP AMERICA PRODUCTION CO.
LOCATION NAME: GCU # 215 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR: BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED: MOBILE DRILL RIG
BORING LOCATION: 82 FEET, S71W FROM WELL HEAD.

DEPTH (FT.)	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	SAMPLE INTERVAL	SAMPLE TIME	FIELD OVM (ppm)	BLOW COUNT PER 6" & RECOVERY	FIELD CLASSIFICATION AND REMARKS
				0'				GROUND SURFACE
1								DRY SS
2								
3				4'				
4				4'				4-5' GAP
5								5"-7' PYO SILT, MOIST
6								
7				8'	1328	342	7'-8'	7'-8' OLIVE GRAY TO BLK CLAY TO SAND, MOIST TO WET
8		LAB		8'	1338	329	8'-9'	8'-10.5' BLK SAND, WET TO SATUR.
9								
10					1342	95	10.5' 11'	10.5-12' OLIVE GRAY SAND, SATUR.
11								
12				12'				
13								
14								
15								
16								
17								
18								
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28								
29								
30								

DRAWING: DATE: DWN BY: NJV

GEOPROBE

LABORATORY

RESULTS

Analytical Report
Lab Order **1307552**
Date Reported: **7/17/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-01 @ 6.5'-7'
Project: GCU #215
Collection Date: 7/8/2013 9:12:00 AM
Lab ID: 1307552-001
Matrix: SOIL
Received Date: 7/11/2013 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	15	10		mg/Kg	1	7/15/2013 11:57:18 PM	8347
Surr: DNOP	79.4	63-147		%REC	1	7/15/2013 11:57:18 PM	8347
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	24	4.7		mg/Kg	1	7/16/2013 5:40:49 PM	8345
Surr: BFB	282	80-120	S	%REC	1	7/16/2013 5:40:49 PM	8345
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.047		mg/Kg	1	7/16/2013 5:40:49 PM	8345
Toluene	ND	0.047		mg/Kg	1	7/16/2013 5:40:49 PM	8345
Ethylbenzene	ND	0.047		mg/Kg	1	7/16/2013 5:40:49 PM	8345
Xylenes, Total	ND	0.094		mg/Kg	1	7/16/2013 5:40:49 PM	8345
Surr: 4-Bromofluorobenzene	116	80-120		%REC	1	7/16/2013 5:40:49 PM	8345

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-02 @ 6.5'-7'
Project: GCU #215
Collection Date: 7/8/2013 9:45:00 AM
Lab ID: 1307552-002
Matrix: SOIL
Received Date: 7/11/2013 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/16/2013 12:19:03 AM	8347
Surr: DNOP	85.5	63-147		%REC	1	7/16/2013 12:19:03 AM	8347
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DAM**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/16/2013 1:44:44 AM	8345
Surr: BFB	97.0	80-120		%REC	1	7/16/2013 1:44:44 AM	8345
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**	
Benzene	ND	0.047		mg/Kg	1	7/16/2013 1:44:44 AM	8345
Toluene	ND	0.047		mg/Kg	1	7/16/2013 1:44:44 AM	8345
Ethylbenzene	ND	0.047		mg/Kg	1	7/16/2013 1:44:44 AM	8345
Xylenes, Total	ND	0.093		mg/Kg	1	7/16/2013 1:44:44 AM	8345
Surr: 4-Bromofluorobenzene	109	80-120		%REC	1	7/16/2013 1:44:44 AM	8345

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-03 @ 6'-6.5'
Project: GCU #215
Collection Date: 7/8/2013 10:07:00 AM
Lab ID: 1307552-003
Matrix: SOIL
Received Date: 7/11/2013 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	53	10		mg/Kg	1	7/16/2013 1:02:29 AM	8347
Surr: DNOP	89.6	63-147		%REC	1	7/16/2013 1:02:29 AM	8347
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	73	4.8		mg/Kg	1	7/16/2013 6:09:26 PM	8345
Surr: BFB	618	80-120	S	%REC	1	7/16/2013 6:09:26 PM	8345
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.048		mg/Kg	1	7/16/2013 6:09:26 PM	8345
Toluene	ND	0.048		mg/Kg	1	7/16/2013 6:09:26 PM	8345
Ethylbenzene	0.17	0.048		mg/Kg	1	7/16/2013 6:09:26 PM	8345
Xylenes, Total	0.92	0.097		mg/Kg	1	7/16/2013 6:09:26 PM	8345
Surr: 4-Bromofluorobenzene	130	80-120	S	%REC	1	7/16/2013 6:09:26 PM	8345

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-04 @ 8'-9'
Project: GCU #215
Collection Date: 7/8/2013 10:35:00 AM
Lab ID: 1307552-004
Matrix: SOIL
Received Date: 7/11/2013 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	860	10		mg/Kg	1	7/16/2013 1:24:08 AM	8347
Surr: DNOP	89.7	63-147		%REC	1	7/16/2013 1:24:08 AM	8347
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	2000	480		mg/Kg	100	7/15/2013 12:25:27 PM	8356
Surr: BFB	127	80-120	S	%REC	100	7/15/2013 12:25:27 PM	8356
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	4.9	4.8		mg/Kg	100	7/15/2013 12:25:27 PM	8356
Toluene	ND	4.8		mg/Kg	100	7/15/2013 12:25:27 PM	8356
Ethylbenzene	14	4.8		mg/Kg	100	7/15/2013 12:25:27 PM	8356
Xylenes, Total	180	9.7		mg/Kg	100	7/15/2013 12:25:27 PM	8356
Surr: 4-Bromofluorobenzene	106	80-120		%REC	100	7/15/2013 12:25:27 PM	8356

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-05 @ 8'-9'
Project: GCU #215
Collection Date: 7/8/2013 11:10:00 AM
Lab ID: 1307552-005 **Matrix:** SOIL **Received Date:** 7/11/2013 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	510	10		mg/Kg	1	7/16/2013 1:45:56 AM	8347
Surr: DNOP	82.5	63-147		%REC	1	7/16/2013 1:45:56 AM	8347
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	1400	230		mg/Kg	50	7/15/2013 12:54:03 PM	8356
Surr: BFB	164	80-120	S	%REC	50	7/15/2013 12:54:03 PM	8356
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	2.3		mg/Kg	50	7/15/2013 12:54:03 PM	8356
Toluene	ND	2.3		mg/Kg	50	7/15/2013 12:54:03 PM	8356
Ethylbenzene	8.5	2.3		mg/Kg	50	7/15/2013 12:54:03 PM	8356
Xylenes, Total	110	4.7		mg/Kg	50	7/15/2013 12:54:03 PM	8356
Surr: 4-Bromofluorobenzene	108	80-120		%REC	50	7/15/2013 12:54:03 PM	8356

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-07 @ 7.5'-9'
Project: GCU #215
Collection Date: 7/8/2013 2:25:00 PM
Lab ID: 1307552-006
Matrix: SOIL
Received Date: 7/11/2013 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	730	10		mg/Kg	1	7/16/2013 2:07:32 AM	8347
Surr: DNOP	87.8	63-147		%REC	1	7/16/2013 2:07:32 AM	8347
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	1900	480		mg/Kg	100	7/15/2013 1:22:41 PM	8356
Surr: BFB	165	80-120	S	%REC	100	7/15/2013 1:22:41 PM	8356
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	4.8		mg/Kg	100	7/15/2013 1:22:41 PM	8356
Toluene	ND	4.8		mg/Kg	100	7/15/2013 1:22:41 PM	8356
Ethylbenzene	9.7	4.8		mg/Kg	100	7/15/2013 1:22:41 PM	8356
Xylenes, Total	120	9.6		mg/Kg	100	7/15/2013 1:22:41 PM	8356
Surr: 4-Bromofluorobenzene	107	80-120		%REC	100	7/15/2013 1:22:41 PM	8356

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-08 @ 10.5'-12'
Project: GCU #215
Collection Date: 7/8/2013 2:55:00 PM
Lab ID: 1307552-007
Matrix: SOIL
Received Date: 7/11/2013 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/16/2013 2:29:25 AM	8347
Surr: DNOP	84.2	63-147		%REC	1	7/16/2013 2:29:25 AM	8347
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	48		mg/Kg	10	7/15/2013 1:51:22 PM	8356
Surr: BFB	114	80-120		%REC	10	7/15/2013 1:51:22 PM	8356
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.48		mg/Kg	10	7/15/2013 1:51:22 PM	8356
Toluene	ND	0.48		mg/Kg	10	7/15/2013 1:51:22 PM	8356
Ethylbenzene	ND	0.48		mg/Kg	10	7/15/2013 1:51:22 PM	8356
Xylenes, Total	ND	0.95		mg/Kg	10	7/15/2013 1:51:22 PM	8356
Surr: 4-Bromofluorobenzene	99.7	80-120		%REC	10	7/15/2013 1:51:22 PM	8356

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

Qualifiers:

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

Analytical Report
Lab Order **1307465**
Date Reported: **7/12/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-10@7'-8'
Project: GCU # 215
Collection Date: 7/9/2013 9:38:00 AM
Lab ID: 1307465-001
Matrix: MEOH (SOIL)
Received Date: 7/11/2013 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	120	10		mg/Kg	1	7/11/2013 11:01:52 AM	8310
Surr: DNOP	79.7	63-147		%REC	1	7/11/2013 11:01:52 AM	8310
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	310	25		mg/Kg	5	7/11/2013 11:11:35 AM	R11852
Surr: BFB	693	80-120	S	%REC	5	7/11/2013 11:11:35 AM	R11852
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.12		mg/Kg	5	7/11/2013 11:11:35 AM	R11852
Toluene	ND	0.25		mg/Kg	5	7/11/2013 11:11:35 AM	R11852
Ethylbenzene	ND	0.25		mg/Kg	5	7/11/2013 11:11:35 AM	R11852
Xylenes, Total	4.5	0.50		mg/Kg	5	7/11/2013 11:11:35 AM	R11852
Surr: 4-Bromofluorobenzene	128	80-120	S	%REC	5	7/11/2013 11:11:35 AM	R11852

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

Qualifiers:

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

Analytical Report
Lab Order **1307553**
Date Reported: **7/17/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-14 @ 6'-7'
Project: GCU #215
Collection Date: 7/9/2013 12:58:00 PM
Lab ID: 1307553-001
Matrix: SOIL
Received Date: 7/11/2013 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	520	10		mg/Kg	1	7/16/2013 2:51:01 AM	8347
Surr: DNOP	92.0	63-147		%REC	1	7/16/2013 2:51:01 AM	8347
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	520	97		mg/Kg	20	7/15/2013 2:19:57 PM	8356
Surr: BFB	210	80-120	S	%REC	20	7/15/2013 2:19:57 PM	8356
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.97		mg/Kg	20	7/15/2013 2:19:57 PM	8356
Toluene	ND	0.97		mg/Kg	20	7/15/2013 2:19:57 PM	8356
Ethylbenzene	1.9	0.97		mg/Kg	20	7/15/2013 2:19:57 PM	8356
Xylenes, Total	28	1.9		mg/Kg	20	7/15/2013 2:19:57 PM	8356
Surr: 4-Bromofluorobenzene	107	80-120		%REC	20	7/15/2013 2:19:57 PM	8356

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-15 @ 6'-7'
Project: GCU #215
Collection Date: 7/9/2013 1:32:00 PM
Lab ID: 1307553-002 **Matrix:** SOIL **Received Date:** 7/11/2013 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/16/2013 3:12:54 AM	8347
Surr: DNOP	81.1	63-147		%REC	1	7/16/2013 3:12:54 AM	8347
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/15/2013 2:48:35 PM	8356
Surr: BFB	111	80-120		%REC	1	7/15/2013 2:48:35 PM	8356
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.047		mg/Kg	1	7/15/2013 2:48:35 PM	8356
Toluene	ND	0.047		mg/Kg	1	7/15/2013 2:48:35 PM	8356
Ethylbenzene	ND	0.047		mg/Kg	1	7/15/2013 2:48:35 PM	8356
Xylenes, Total	ND	0.095		mg/Kg	1	7/15/2013 2:48:35 PM	8356
Surr: 4-Bromofluorobenzene	98.8	80-120		%REC	1	7/15/2013 2:48:35 PM	8356

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-17 @ 7'-8'
Project: GCU #215
Collection Date: 7/9/2013 3:05:00 PM
Lab ID: 1307553-003
Matrix: SOIL
Received Date: 7/11/2013 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	130	10		mg/Kg	1	7/16/2013 3:34:38 AM	8347
Surr: DNOP	89.1	63-147		%REC	1	7/16/2013 3:34:38 AM	8347
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	220	23		mg/Kg	5	7/15/2013 3:17:14 PM	8356
Surr: BFB	402	80-120	S	%REC	5	7/15/2013 3:17:14 PM	8356
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.23		mg/Kg	5	7/15/2013 3:17:14 PM	8356
Toluene	ND	0.23		mg/Kg	5	7/15/2013 3:17:14 PM	8356
Ethylbenzene	0.45	0.23		mg/Kg	5	7/15/2013 3:17:14 PM	8356
Xylenes, Total	5.1	0.46		mg/Kg	5	7/15/2013 3:17:14 PM	8356
Surr: 4-Bromofluorobenzene	117	80-120		%REC	5	7/15/2013 3:17:14 PM	8356

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1307785**
Date Reported: **7/24/2013**

CLIENT: Blagg Engineering
Client Sample ID: GP-18 @ 7.5'-8'
Project: GCU #215
Collection Date: 7/10/2013 9:45:00 AM
Lab ID: 1307785-001 **Matrix:** SOIL **Received Date:** 7/17/2013 9:51:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/22/2013 1:13:23 PM	8425
Surr: DNOP	90.0	63-147		%REC	1	7/22/2013 1:13:23 PM	8425
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DAM**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/19/2013 12:51:27 PM	8446
Surr: BFB	93.9	80-120		%REC	1	7/19/2013 12:51:27 PM	8446

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-19 @ 7.5'-8.5'
Project: GCU #215
Collection Date: 7/10/2013 10:29:00 AM
Lab ID: 1307785-002 **Matrix:** SOIL **Received Date:** 7/17/2013 9:51:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/22/2013 2:40:50 PM	8425
Surr: DNOP	88.5	63-147		%REC	1	7/22/2013 2:40:50 PM	8425
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DAM**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/19/2013 1:20:01 PM	8446
Surr: BFB	94.2	80-120		%REC	1	7/19/2013 1:20:01 PM	8446

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-20 @ 9'-10'
Project: GCU #215
Collection Date: 7/10/2013 11:06:00 AM
Lab ID: 1307785-003 **Matrix:** SOIL **Received Date:** 7/17/2013 9:51:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/22/2013 3:02:46 PM	8425
Surr: DNOP	89.5	63-147		%REC	1	7/22/2013 3:02:46 PM	8425
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DAM**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/19/2013 1:48:42 PM	8446
Surr: BFB	94.4	80-120		%REC	1	7/19/2013 1:48:42 PM	8446

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-21 @ 6.5'-7.5'
Project: GCU #215
Collection Date: 7/10/2013 12:07:00 PM
Lab ID: 1307785-004
Matrix: SOIL
Received Date: 7/17/2013 9:51:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/22/2013 3:24:38 PM	8425
Surr: DNOP	93.1	63-147		%REC	1	7/22/2013 3:24:38 PM	8425
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DAM**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/19/2013 2:45:58 PM	8446
Surr: BFB	94.6	80-120		%REC	1	7/19/2013 2:45:58 PM	8446

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-26 @ 5.5'-6.5'
Project: GCU #215
Collection Date: 7/12/2013 9:00:00 AM
Lab ID: 1307785-005 **Matrix:** SOIL **Received Date:** 7/17/2013 9:51:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	480	9.9		mg/Kg	1	7/22/2013 3:46:39 PM	8425
Surr: DNOP	90.4	63-147		%REC	1	7/22/2013 3:46:39 PM	8425
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DAM**	
Gasoline Range Organics (GRO)	880	47		mg/Kg	10	7/19/2013 3:14:35 PM	8446
Surr: BFB	342	80-120	S	%REC	10	7/19/2013 3:14:35 PM	8446
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**	
Benzene	0.90	0.47		mg/Kg	10	7/19/2013 3:14:35 PM	8446
Toluene	ND	0.47		mg/Kg	10	7/19/2013 3:14:35 PM	8446
Ethylbenzene	4.6	0.47		mg/Kg	10	7/19/2013 3:14:35 PM	8446
Xylenes, Total	58	0.94		mg/Kg	10	7/19/2013 3:14:35 PM	8446
Surr: 4-Bromofluorobenzene	121	80-120	S	%REC	10	7/19/2013 3:14:35 PM	8446

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-26 @ 9'-10'
Project: GCU #215
Collection Date: 7/12/2013 9:08:00 AM
Lab ID: 1307785-006
Matrix: SOIL
Received Date: 7/17/2013 9:51:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/22/2013 4:30:25 PM	8425
Surr: DNOP	92.8	63-147		%REC	1	7/22/2013 4:30:25 PM	8425
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DAM**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/22/2013 1:01:05 PM	8446
Surr: BFB	96.8	80-120		%REC	1	7/22/2013 1:01:05 PM	8446

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-27 @ 8'-9'
Project: GCU #215
Collection Date: 7/12/2013 9:43:00 AM
Lab ID: 1307785-007
Matrix: SOIL
Received Date: 7/17/2013 9:51:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	76	10		mg/Kg	1	7/22/2013 4:52:14 PM	8425
Surr: DNOP	93.5	63-147		%REC	1	7/22/2013 4:52:14 PM	8425
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DAM**	
Gasoline Range Organics (GRO)	300	48		mg/Kg	10	7/19/2013 4:11:44 PM	8446
Surr: BFB	168	80-120	S	%REC	10	7/19/2013 4:11:44 PM	8446
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**	
Benzene	ND	0.48		mg/Kg	10	7/19/2013 4:11:44 PM	8446
Toluene	ND	0.48		mg/Kg	10	7/19/2013 4:11:44 PM	8446
Ethylbenzene	2.0	0.48		mg/Kg	10	7/19/2013 4:11:44 PM	8446
Xylenes, Total	21	0.96		mg/Kg	10	7/19/2013 4:11:44 PM	8446
Surr: 4-Bromofluorobenzene	107	80-120		%REC	10	7/19/2013 4:11:44 PM	8446

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-27 @ 10'-11'
Project: GCU #215
Collection Date: 7/12/2013 9:45:00 AM
Lab ID: 1307785-008
Matrix: SOIL
Received Date: 7/17/2013 9:51:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/22/2013 5:14:12 PM	8425
Surr: DNOP	89.1	63-147		%REC	1	7/22/2013 5:14:12 PM	8425
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DAM**	
Gasoline Range Organics (GRO)	5.8	4.9		mg/Kg	1	7/19/2013 4:40:16 PM	8446
Surr: BFB	111	80-120		%REC	1	7/19/2013 4:40:16 PM	8446

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-29 @ 7'-8'
Project: GCU #215
Collection Date: 7/12/2013 12:43:00 PM
Lab ID: 1307785-009
Matrix: SOIL
Received Date: 7/17/2013 9:51:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	370	10		mg/Kg	1	7/22/2013 5:36:03 PM	8425
Surr: DNOP	95.5	63-147		%REC	1	7/22/2013 5:36:03 PM	8425
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DAM**	
Gasoline Range Organics (GRO)	170	94		mg/Kg	20	7/19/2013 5:08:48 PM	8446
Surr: BFB	151	80-120	S	%REC	20	7/19/2013 5:08:48 PM	8446
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**	
Benzene	ND	0.94		mg/Kg	20	7/19/2013 5:08:48 PM	8446
Toluene	ND	0.94		mg/Kg	20	7/19/2013 5:08:48 PM	8446
Ethylbenzene	ND	0.94		mg/Kg	20	7/19/2013 5:08:48 PM	8446
Xylenes, Total	2.3	1.9		mg/Kg	20	7/19/2013 5:08:48 PM	8446
Surr: 4-Bromofluorobenzene	101	80-120		%REC	20	7/19/2013 5:08:48 PM	8446

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-29 @ 9'-10'
Project: GCU #215
Collection Date: 7/12/2013 12:45:00 PM
Lab ID: 1307785-010
Matrix: SOIL
Received Date: 7/17/2013 9:51:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/22/2013 5:57:58 PM	8425
Surr: DNOP	86.7	63-147		%REC	1	7/22/2013 5:57:58 PM	8425
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DAM**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/19/2013 5:37:31 PM	8446
Surr: BFB	104	80-120		%REC	1	7/19/2013 5:37:31 PM	8446

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: GP-31 @ 8'-9'
Project: GCU #215
Collection Date: 7/12/2013 1:38:00 PM
Lab ID: 1307785-011
Matrix: SOIL
Received Date: 7/17/2013 9:51:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	69	9.9		mg/Kg	1	7/22/2013 6:19:48 PM	8425
Surr: DNOP	88.0	63-147		%REC	1	7/22/2013 6:19:48 PM	8425
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DAM**	
Gasoline Range Organics (GRO)	210	48		mg/Kg	10	7/22/2013 1:29:42 PM	8446
Surr: BFB	138	80-120	S	%REC	10	7/22/2013 1:29:42 PM	8446
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**	
Benzene	0.50	0.48		mg/Kg	10	7/22/2013 1:29:42 PM	8446
Toluene	4.6	0.48		mg/Kg	10	7/22/2013 1:29:42 PM	8446
Ethylbenzene	1.4	0.48		mg/Kg	10	7/22/2013 1:29:42 PM	8446
Xylenes, Total	15	0.95		mg/Kg	10	7/22/2013 1:29:42 PM	8446
Surr: 4-Bromofluorobenzene	105	80-120		%REC	10	7/22/2013 1:29:42 PM	8446

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

Qualifiers:

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

GEOPROBE

LABORATORY

CHAIN-OF-CUSTODY

RECORDS

Chain of Custody Record

Client:	BLAGG ENGR. / BP AMERICA
Mailing Address:	P.O. BOX 87
	BLOOMFIELD, NM 87413
Phone #:	(505) 632-1199
email or Fax#:	
QA/QC Package:	☑ Standard ☐ Level 4 (Full Validation)
Accreditation:	☐ NELAP ☐ Other
☐ EDD (Type)	

☑ Standard ☐ Rush

Project Name: **GCU #215**

Project #:

Project Manager: **NELSON VELEZ**

Sampler: **NELSON VELEZ** NV

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.6

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1307552	BTEX + ~~MTBE~~ + TMB's (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / ~~MRO~~) NV	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)		Grab sample	5 pt. composite sample
7/8/13	0912	SOIL	GP-01 @ ~~5~~ 6 5'-7'	4 oz. - 1	Cool	-001	✓		✓											✓	
7/8/13	0945	SOIL	GP-02 @ 6.5'-7'	4 oz. - 1	Cool	-002	✓		✓											✓	
7/8/13	1007	SOIL	GP-03 @ 6'-6.5'	4 oz. - 1	Cool	-003	✓		✓											✓	
7/8/13	1031 ~~15~~	SOIL	GP-04 @ ~~7.5~~ 8'-9' NO 7/10	4 oz. - 1	Cool	-004	✓		✓											✓	
7/8/13	1110	SOIL	GP-05 @ 8'-9'	4 oz. - 1	Cool	-005	✓		✓											✓	
7/8/13	1430 25	SOIL	GP-07 @ 7.5'-9'	4 oz. - 1	Cool	-006	✓		✓											✓	
7/8/13	1455	SOIL	GP-08 @ 10.5'-12'	4 oz. - 1	Cool	-007	✓		✓											✓	

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/10/13	819		Christen Waeters	7/10/13	819
Date:	Time:	Relinquished by:	Received by:	Date	Time
7/10/13	1750	Christen Waeters		07/11/13	0945

Remarks: **TPH (8015B) - GRO & DRO ONLY.**

BILL DIRECTLY TO BP:
Jeff Peace, 200 Energy Court, Farmington, NM 87401

Work Order: N1557827 Paykey: ZEHV01BGT2

Verified Sample information with Nelson NV

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

Chain-of-Custody Record

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

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

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

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush COMPLETE BY 07/11/2013

Project Name: **GCU #215**

Project #:

Project Manager: **NELSON VELEZ**

Sampler: **NELSON VELEZ** NV

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1307465	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / ~~MRO~~) NV	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)		Grab sample	5 pt. composite sample	
7/9/13	0938	SOIL	GP-10 @ 7'-8'	4 oz. - 1	Cool	-001	√		√											√		

Date	Time	Relinquished by:	Received by:	Date	Time
7/10/13	819		Christine Walters	7/10/13	819
7/10/13	1756	Christine Walters		07/11/13	0945

Remarks: **TPH (8015B) - GRO & DRO ONLY.** Pg 1 of 2

BILL DIRECTLY TO BP:
Jeff Peace, 200 Energy Court, Farmington, NM 87401

Work Order: N1557827 Paykey: ZEHV01BGT2

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.

Chain-of-Custody Record

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

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

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

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: **GCU #215**

Project #:

Project Manager: **NELSON VELEZ**

Sampler: **NELSON VELEZ** NV

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1307553	BTEX + ~~MTBE~~ + TMB's (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / ~~MRO~~) NV	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)		Grab sample	5 pt. composite sample
7/9/13	1258	SOIL	GP-14 @ 6'-7'	4 oz. - 1	Cool	-001	✓		✓											✓	
7/9/13	1332	SOIL	GP-15 @ 6'-7'	4 oz. - 1	Cool	-002	✓		✓											✓	
7/9/13	1505	SOIL	GP-17 @ 7'-8'	4 oz. - 1	Cool	-003	✓		✓											✓	

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/10/13	819			7/10/13	819
7/10/13	1750			07/11/13	0945

Remarks: **TPH (8015B) - GRO & DRO ONLY.** pg. 2 of 2

BILL DIRECTLY TO BP:
Jeff Peace, 200 Energy Court, Farmington, NM 87401

Work Order: N1557827 Paykey: ZEHV01BGT2

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

Chain-of-Custody Record

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

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

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

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name:
GCU #215

Project #:

Project Manager:
NELSON VELEZ

Sampler: **NELSON VELEZ** NV

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1307785	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / ~~MRO~~) NV	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)		Grab sample	5 pt. composite sample
7/10/13	0945	SOIL	GP-18 @ 7.5'-8'	4 oz. - 1	Cool	-001			√											√	
7/10/13	1029	SOIL	GP-19 @ 7.5'-8.5'	4 oz. - 1	Cool	-002			√											√	
7/10/13	1106	SOIL	GP-20 @ 9'-10'	4 oz. - 1	Cool	-003			√											√	
7/10/13	1207	SOIL	GP-21 @ 6.5'-7.5'	4 oz. - 1	Cool	-004			√											√	
7/12/13	0900	SOIL	GP-26 @ 5.5'-6.5'	4 oz. - 1	Cool	-005	√		√											√	
7/12/13	0908	SOIL	GP-26 @ 9'-10'	4 oz. - 1	Cool	-006			√											√	
7/12/13	0943	SOIL	GP-27 @ 8'-9'	4 oz. - 1	Cool	-007	√		√											√	
7/12/13	0945	SOIL	GP-27 @ 10'-11'	4 oz. - 1	Cool	-008			√											√	
7/12/13	1243	SOIL	GP-29 @ 7'-8'	4 oz. - 1	Cool	-009	√		√											√	
7/12/13	1245	SOIL	GP-29 @ 9'-10'	4 oz. - 1	Cool	-010			√											√	
7/12/13	1338	SOIL	GP-31 @ 8'-9'	4 oz. - 1	Cool	-011	√		√											√	

Date	Time	Relinquished by:	Received by:	Date	Time
7/16/13	1315			7/16/13	1315
7/16/13	1740			07/17/13	0957

Remarks: **TPH (8015B) - GRO & DRO ONLY.**

BILL DIRECTLY TO BP:
Jeff Peace, 200 Energy Court, Farmington, NM 87401

Work Order: N1557827 Paykey: ZEHV01BGT2

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.

GEOPROBE LABORATORY QUALITY ASSURANCE / QUALITY CONTROL

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1307552**

17-Jul-13

Client: Blagg Engineering
Project: GCU #215

Sample ID	**MB-8347**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**8347**		RunNo:	**11922**				
Prep Date:	**7/12/2013**	Analysis Date:	**7/15/2013**		SeqNo:	**339456**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.6		10.00		85.7	63	147			

Sample ID	**LCS-8347**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**8347**		RunNo:	**11922**				
Prep Date:	**7/12/2013**	Analysis Date:	**7/15/2013**		SeqNo:	**339457**	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	83.6	77.1	128			
Surr: DNOP	4.1		5.000		81.9	63	147			

Sample ID	**MB-8407**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**8407**		RunNo:	**11995**				
Prep Date:	**7/16/2013**	Analysis Date:	**7/17/2013**		SeqNo:	**341200**	Units:	**%REC**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		114	63	147			

Sample ID	**LCS-8407**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**8407**		RunNo:	**11995**				
Prep Date:	**7/16/2013**	Analysis Date:	**7/17/2013**		SeqNo:	**341201**	Units:	**%REC**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.8		5.000		116	63	147			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1307552**

17-Jul-13

Client: Blagg Engineering
Project: GCU #215

Sample ID	**MB-8356**	SampType: **MBLK**			TestCode: **EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID: **8356**			RunNo: **11954**				
Prep Date:	**7/12/2013**	Analysis Date: **7/15/2013**			SeqNo: **339700**	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	950		1000		95.1	80	120			

Sample ID	**LCS-8356**	SampType: **LCS**			TestCode: **EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID: **8356**			RunNo: **11954**				
Prep Date:	**7/12/2013**	Analysis Date: **7/15/2013**			SeqNo: **339701**	Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	62.6	136			
Surr: BFB	1000		1000		102	80	120			

Sample ID	**MB-8345**	SampType: **MBLK**			TestCode: **EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID: **8345**			RunNo: **11935**				
Prep Date:	**7/12/2013**	Analysis Date: **7/15/2013**			SeqNo: **339766**	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	950		1000		95.3	80	120			

Sample ID	**LCS-8345**	SampType: **LCS**			TestCode: **EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID: **8345**			RunNo: **11935**				
Prep Date:	**7/12/2013**	Analysis Date: **7/15/2013**			SeqNo: **339767**	Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	90.6	62.6	136			
Surr: BFB	1000		1000		104	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1307552**

17-Jul-13

Client: Blagg Engineering
Project: GCU #215

Sample ID	**MB-8356**	SampType: **MBLK**			TestCode: **EPA Method 8021B: Volatiles**				
Client ID:	**PBS**	Batch ID: **8356**			RunNo: **11954**				
Prep Date:	**7/12/2013**	Analysis Date: **7/15/2013**			SeqNo: **339736**	Units: **mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.99		1.000		99.4	80	120			

Sample ID	**LCS-8356**	SampType: **LCS**			TestCode: **EPA Method 8021B: Volatiles**				
Client ID:	**LCSS**	Batch ID: **8356**			RunNo: **11954**				
Prep Date:	**7/12/2013**	Analysis Date: **7/15/2013**			SeqNo: **339737**	Units: **mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.050	1.000	0	97.9	80	120			
Toluene	0.99	0.050	1.000	0	99.2	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.2	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.5	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	**MB-8345**	SampType: **MBLK**			TestCode: **EPA Method 8021B: Volatiles**				
Client ID:	**PBS**	Batch ID: **8345**			RunNo: **11935**				
Prep Date:	**7/12/2013**	Analysis Date: **7/15/2013**			SeqNo: **339795**	Units: **mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Sample ID	**LCS-8345**	SampType: **LCS**			TestCode: **EPA Method 8021B: Volatiles**				
Client ID:	**LCSS**	Batch ID: **8345**			RunNo: **11935**				
Prep Date:	**7/12/2013**	Analysis Date: **7/15/2013**			SeqNo: **339796**	Units: **mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.050	1.000	0	95.8	80	120			
Toluene	0.95	0.050	1.000	0	95.3	80	120			
Ethylbenzene	0.95	0.050	1.000	0	94.6	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.8	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		117	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1307552 | RcptNo: 1

Received by/date: AT 07/11/13

Logged By: **Lindsay Mangin** 7/11/2013 9:45:00 AM

Completed By: **Lindsay Mangin** 7/12/2013 10:57:27 AM

Reviewed By: MG AT 07/12/13

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1307465**

12-Jul-13

Client: Blagg Engineering
Project: GCU # 215

Sample ID	**1307372-005AMS**	SampType: **MS**		TestCode: **EPA Method 8015D: Diesel Range Organics**					
Client ID:	**BatchQC**	Batch ID: **8268**		RunNo: **11842**					
Prep Date:	**7/8/2013**	Analysis Date: **7/11/2013**		SeqNo: **337064**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.8		5.005		76.7	63	147			

Sample ID	**1307372-005AMSD**	SampType: **MSD**		TestCode: **EPA Method 8015D: Diesel Range Organics**					
Client ID:	**BatchQC**	Batch ID: **8268**		RunNo: **11842**					
Prep Date:	**7/8/2013**	Analysis Date: **7/11/2013**		SeqNo: **337065**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.8		5.005		75.4	63	147	0	0	

Sample ID	**MB-8310**	SampType: **MBLK**		TestCode: **EPA Method 8015D: Diesel Range Organics**					
Client ID:	**PBS**	Batch ID: **8310**		RunNo: **11842**					
Prep Date:	**7/10/2013**	Analysis Date: **7/11/2013**		SeqNo: **337066**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.0		10.00		80.2	63	147			

Sample ID	**LCS-8310**	SampType: **LCS**		TestCode: **EPA Method 8015D: Diesel Range Organics**					
Client ID:	**LCSS**	Batch ID: **8310**		RunNo: **11842**					
Prep Date:	**7/10/2013**	Analysis Date: **7/11/2013**		SeqNo: **337069**		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	86.9	77.1	128			
Surr: DNOP	3.9		5.000		77.4	63	147			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1307465**

12-Jul-13

Client: Blagg Engineering
Project: GCU # 215

Sample ID	**MB-8305**	SampType: **MBLK**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID: **R11852**			RunNo: **11852**					
Prep Date:	**7/10/2013**	Analysis Date: **7/11/2013**			SeqNo: **337676**		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	920		1000		92.3	80	120			

Sample ID	**LCS-8305**	SampType: **LCS**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID: **R11852**			RunNo: **11852**					
Prep Date:	**7/10/2013**	Analysis Date: **7/11/2013**			SeqNo: **337677**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.2	62.6	136			
Surr: BFB	1200		1000		115	80	120			

Sample ID	**MB-8305**	SampType: **MBLK**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID: **8305**			RunNo: **11852**					
Prep Date:	**7/10/2013**	Analysis Date: **7/11/2013**			SeqNo: **337682**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	920		1000		92.3	80	120			

Sample ID	**LCS-8305**	SampType: **LCS**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID: **8305**			RunNo: **11852**					
Prep Date:	**7/10/2013**	Analysis Date: **7/11/2013**			SeqNo: **337683**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1200		1000		115	80	120			

Sample ID	**1307372-005AMS**	SampType: **MS**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**BatchQC**	Batch ID: **8305**			RunNo: **11852**					
Prep Date:	**7/10/2013**	Analysis Date: **7/11/2013**			SeqNo: **337685**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		961.5		105	80	120			

Sample ID	**1307372-005AMSD**	SampType: **MSD**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**BatchQC**	Batch ID: **8305**			RunNo: **11852**					
Prep Date:	**7/10/2013**	Analysis Date: **7/11/2013**			SeqNo: **337686**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	990		960.6		103	80	120	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1307465**

12-Jul-13

Client: Blagg Engineering
Project: GCU # 215

Sample ID **MB-8305**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R11852**	RunNo: **11852**
Prep Date: **7/10/2013**	Analysis Date: **7/11/2013**	SeqNo: **337689** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.96		1.000		95.5	80	120			

Sample ID **LCS-8305**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R11852**	RunNo: **11852**
Prep Date: **7/10/2013**	Analysis Date: **7/11/2013**	SeqNo: **337690** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	99.9	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.1	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.8	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID **1307467-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R11852**	RunNo: **11852**
Prep Date:	Analysis Date: **7/11/2013**	SeqNo: **337694** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.60	0.050	0.6345	0	94.8	67.3	145			
Toluene	0.61	0.050	0.6345	0.005178	95.1	66.8	144			
Ethylbenzene	0.61	0.050	0.6345	0	96.4	61.9	153			
Xylenes, Total	1.8	0.10	1.904	0.02470	95.2	65.8	149			
Surr: 4-Bromofluorobenzene	0.66		0.6345		103	80	120			

Sample ID **1307467-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R11852**	RunNo: **11852**
Prep Date:	Analysis Date: **7/11/2013**	SeqNo: **337695** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.58	0.050	0.6345	0	92.0	67.3	145	2.98	20	
Toluene	0.59	0.050	0.6345	0.005178	91.7	66.8	144	3.62	20	
Ethylbenzene	0.59	0.050	0.6345	0	92.3	61.9	153	4.36	20	
Xylenes, Total	1.8	0.10	1.904	0.02470	91.3	65.8	149	4.20	20	
Surr: 4-Bromofluorobenzene	0.67		0.6345		106	80	120	0	0	

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1307465 RcptNo: 1

Received by/date: AR 07/11/13

Logged By: **Lindsay Mangin** 7/11/2013 9:45:00 AM

Completed By: **Lindsay Mangin** 7/11/2013 10:00:19 AM

Reviewed By: AR 07/11/13

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1307553**

17-Jul-13

Client: Blagg Engineering
Project: GCU #215

Sample ID	**MB-8347**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**8347**		RunNo:	**11922**				
Prep Date:	**7/12/2013**	Analysis Date:	**7/15/2013**		SeqNo:	**339456**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.6		10.00		85.7	63	147			

Sample ID	**LCS-8347**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**8347**		RunNo:	**11922**				
Prep Date:	**7/12/2013**	Analysis Date:	**7/15/2013**		SeqNo:	**339457**	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	83.6	77.1	128			
Surr: DNOP	4.1		5.000		81.9	63	147			

Sample ID	**MB-8407**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**8407**		RunNo:	**11995**				
Prep Date:	**7/16/2013**	Analysis Date:	**7/17/2013**		SeqNo:	**341200**	Units:	**%REC**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		114	63	147			

Sample ID	**LCS-8407**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**8407**		RunNo:	**11995**				
Prep Date:	**7/16/2013**	Analysis Date:	**7/17/2013**		SeqNo:	**341201**	Units:	**%REC**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.8		5.000		116	63	147			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1307553**

17-Jul-13

Client: Blagg Engineering

Project: GCU #215

Sample ID	**MB-8356**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**8356**		RunNo:	**11954**				
Prep Date:	**7/12/2013**	Analysis Date:	**7/15/2013**		SeqNo:	**339700**	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	950		1000		95.1	80	120			

Sample ID	**LCS-8356**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**8356**		RunNo:	**11954**				
Prep Date:	**7/12/2013**	Analysis Date:	**7/15/2013**		SeqNo:	**339701**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	62.6	136			
Surr: BFB	1000		1000		102	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1307553**

17-Jul-13

Client: Blagg Engineering
Project: GCU #215

Sample ID **MB-8356**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **8356**	RunNo: **11954**
Prep Date: **7/12/2013**	Analysis Date: **7/15/2013**	SeqNo: **339736** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.99		1.000		99.4	80	120			

Sample ID **LCS-8356**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **8356**	RunNo: **11954**
Prep Date: **7/12/2013**	Analysis Date: **7/15/2013**	SeqNo: **339737** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.050	1.000	0	97.9	80	120			
Toluene	0.99	0.050	1.000	0	99.2	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.2	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.5	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Qualifiers:

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

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: 1307553 RcptNo: 1

Received by/date: AG 07/11/13

Logged By: **Lindsay Mangin** 7/11/2013 9:45:00 AM

Completed By: **Lindsay Mangin** 7/12/2013 11:02:32 AM

Reviewed By: MG 07/12/13

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1307785**

24-Jul-13

Client: Blagg Engineering
Project: GCU #215

Sample ID	**MB-8425**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**8425**		RunNo:	**12041**				
Prep Date:	**7/17/2013**	Analysis Date:	**7/18/2013**		SeqNo:	**342321**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.6		10.00		96.2	63	147			

Sample ID	**LCS-8425**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**8425**		RunNo:	**12041**				
Prep Date:	**7/17/2013**	Analysis Date:	**7/18/2013**		SeqNo:	**342322**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	90.9	77.1	128			
Surr: DNOP	5.5		5.000		110	63	147			

Sample ID	**LCS-8486**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**8486**		RunNo:	**12083**				
Prep Date:	**7/22/2013**	Analysis Date:	**7/22/2013**		SeqNo:	**343712**	Units:	**%REC**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.2		5.000		84.9	63	147			

Sample ID	**MB-8486**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**8486**		RunNo:	**12083**				
Prep Date:	**7/22/2013**	Analysis Date:	**7/22/2013**		SeqNo:	**343713**	Units:	**%REC**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.0		10.00		89.5	63	147			

Sample ID	**1307785-001AMS**	SampType:	**MS**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**GP-18 @ 7.5'-8'**	Batch ID:	**8425**		RunNo:	**12083**				
Prep Date:	**7/17/2013**	Analysis Date:	**7/22/2013**		SeqNo:	**343907**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	49.75	0	85.9	61.3	138			
Surr: DNOP	4.3		4.975		87.4	63	147			

Sample ID	**1307785-001AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**GP-18 @ 7.5'-8'**	Batch ID:	**8425**		RunNo:	**12083**				
Prep Date:	**7/17/2013**	Analysis Date:	**7/22/2013**		SeqNo:	**343911**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.30	0	85.0	61.3	138	0.0595	20	
Surr: DNOP	4.4		5.030		87.0	63	147	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1307785**

24-Jul-13

Client: Blagg Engineering
Project: GCU #215

Sample ID	**MB-8446**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**8446**		RunNo:	**12078**				
Prep Date:	**7/18/2013**	Analysis Date:	**7/19/2013**		SeqNo:	**343370**	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	930		1000		93.4	80	120			

Sample ID	**LCS-8446**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**8446**		RunNo:	**12078**				
Prep Date:	**7/18/2013**	Analysis Date:	**7/19/2013**		SeqNo:	**343371**	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	62.6	136			
Surr: BFB	1000		1000		100	80	120			

Sample ID	**1307785-001AMS**	SampType:	**MS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**GP-18 @ 7.5'-8'**	Batch ID:	**8446**		RunNo:	**12078**				
Prep Date:	**7/18/2013**	Analysis Date:	**7/19/2013**		SeqNo:	**343372**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	35	4.7	23.54	0	148	76	156			
Surr: BFB	1400		941.6		147	80	120			S

Sample ID	**1307785-001AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**GP-18 @ 7.5'-8'**	Batch ID:	**8446**		RunNo:	**12078**				
Prep Date:	**7/18/2013**	Analysis Date:	**7/19/2013**		SeqNo:	**343373**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	4.7	23.54	0	125	76	156	16.9	17.7	
Surr: BFB	1100		941.6		112	80	120	0	0	

Sample ID	**MB-8464**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**R12092**		RunNo:	**12092**				
Prep Date:	**7/19/2013**	Analysis Date:	**7/22/2013**		SeqNo:	**344474**	Units:	**%REC**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	930		1000		92.6	80	120			

Sample ID	**LCS-8464**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**R12092**		RunNo:	**12092**				
Prep Date:	**7/19/2013**	Analysis Date:	**7/22/2013**		SeqNo:	**344475**	Units:	**%REC**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		101	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1307785**

24-Jul-13

Client: Blagg Engineering
Project: GCU #215

Sample ID	**MB-8446**	SampType: **MBLK**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID: **8446**		RunNo: **12078**					
Prep Date:	**7/18/2013**	Analysis Date: **7/19/2013**		SeqNo: **343544**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.98		1.000		97.7	80	120			

Sample ID	**LCS-8446**	SampType: **LCS**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID: **8446**		RunNo: **12078**					
Prep Date:	**7/18/2013**	Analysis Date: **7/19/2013**		SeqNo: **343552**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	101	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID	**1307801-003AMS**	SampType: **MS**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**BatchQC**	Batch ID: **8446**		RunNo: **12078**					
Prep Date:	**7/18/2013**	Analysis Date: **7/19/2013**		SeqNo: **343556**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3.4	0.48	9.699	3.466	-0.238	67.3	145			S
Toluene	25	0.48	9.699	35.90	-108	66.8	144			S
Ethylbenzene	7.0	0.48	9.699	8.386	-14.7	61.9	153			S
Xylenes, Total	70	0.97	29.10	90.26	-70.9	65.8	149			S
Surr: 4-Bromofluorobenzene	12		9.699		121	80	120			S

Sample ID	**1307801-003AMSD**	SampType: **MSD**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**BatchQC**	Batch ID: **8446**		RunNo: **12078**					
Prep Date:	**7/18/2013**	Analysis Date: **7/19/2013**		SeqNo: **343557**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3.4	0.48	9.690	3.466	-1.12	67.3	145	2.51	20	S
Toluene	26	0.48	9.690	35.90	-98.4	66.8	144	3.52	20	S
Ethylbenzene	7.5	0.48	9.690	8.386	-9.42	61.9	153	7.13	20	S
Xylenes, Total	74	0.97	29.07	90.26	-56.3	65.8	149	5.95	20	S
Surr: 4-Bromofluorobenzene	12		9.690		126	80	120	0	0	S

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1307785**

24-Jul-13

Client: Blagg Engineering
Project: GCU #215

Sample ID	**MB-8464**	SampType: **MBLK**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID: **R12092**		RunNo: **12092**					
Prep Date:	**7/19/2013**	Analysis Date: **7/22/2013**		SeqNo: **344523**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.96		1.000		96.3	80	120			

Sample ID	**LCS-8464**	SampType: **LCS**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID: **R12092**		RunNo: **12092**					
Prep Date:	**7/19/2013**	Analysis Date: **7/22/2013**		SeqNo: **344524**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1307785 RcptNo: 1

Received by/date: 07/17/13

Logged By: Ashley Gallegos 7/17/2013 9:51:00 AM

Completed By: Ashley Gallegos 7/17/2013 4:37:11 PM

Reviewed By: DF 7/17/2013 07/17/13

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

SOIL

REMEDIATION

APRIL–AUGUST 2014


BP America: GCU 215 Excavation
MW-5
Remaining Off-Site Impacts
(About 260' x 60' x 4' +/-)
(2,300 CY)
T
R
U
Z
MW-4
Q
Y
S
P
EX2
X
GCU 215
O
G
N
A
Final Impact Excavation:
355' x 220 x 7'+/-
(20,400 CY)
M
MW-2
B
355 Feet
H
L
C
K
MW-3
D
J
E
I
MW-1
EX1
W
F
V
220 Feet
N
300 ft
Google earth

BP AMERICA PRODUCTION COMPANY

GCU # 215

Unit M, Sec. 16, T29N, R12W

Clean Up of Historical Release Discovered Beneath 95 bbl Below-grade Tank

SAMPLE ID	SAMPLE DATE	SAMPLE TIME	GRAB / COMPOSITE	TPH - gasoline range (ppm)	TPH - diesel range (ppm)	TPH - cumulative (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl - benzene (ppm)	Total Xylenes (ppm)	BTEX - cumulative (ppm)	
300' S2E @ 6'	04/28/14	1340	Grab	1,300	630	1,930	ND	ND	10.0	110	120	Excavated
129' S46E @ 8'	05/05/14	0855	Grab	ND	ND	ND	ND	ND	ND	ND	ND	
159' S32E @ 8'	05/05/14	0859	Grab	ND	ND	ND	ND	ND	ND	ND	ND	
172' S24E @ 8'	05/05/14	0903	Grab	ND	ND	ND	ND	ND	ND	ND	ND	
196' S18E @ 8'	05/05/14	0906	Grab	ND	ND	ND	ND	ND	ND	ND	ND	
228' S11E @ 8'	05/05/14	0910	Grab	ND	ND	ND	ND	ND	ND	ND	ND	
250' S7.5E @ 8'	05/05/14	0913	Grab	ND	ND	ND	ND	ND	ND	ND	ND	
109' S60E @ 8'	05/05/14	0919	Grab	ND	ND	ND	ND	ND	ND	ND	ND	
80' Due E @ 6'	05/05/14	0924	Grab	3,600	2,000	5,600	4.1	6.6	26	300	337	Excavated
210' S58W	05/16/14	0900	Grab	ND	ND	ND	ND	ND	ND	ND	ND	
252' S17W @8'	06/05/14	0846	Grab	ND	ND	ND	ND	ND	ND	ND	ND	
253' S25W @ 8'	06/05/14	0853	Grab	ND	ND	ND	ND	ND	ND	ND	ND	
241' S37W @ 10'	06/05/14	0900	Grab	ND	ND	ND	ND	ND	ND	ND	ND	
210' S48W @ 11'	06/05/14	0906	Grab	ND	ND	ND	ND	ND	ND	ND	ND	
170' S63W @ 11'	06/05/14	0911	Grab	ND	ND	ND	ND	ND	ND	ND	ND	
141' S72W @ 11'	06/05/14	0916	Grab	ND	ND	ND	ND	ND	ND	ND	ND	
121' S88W @ 11'	06/05/14	0920	Grab	ND	ND	ND	ND	ND	ND	ND	ND	
113' N73W @ 10'	06/05/14	0925	Grab	ND	ND	ND	ND	ND	ND	ND	ND	
NSW-EAST END @ 6' (150' N14E) from W.H.	08/05/14	1015	Grab	ND	ND	ND	NA	NA	NA	NA	NA	
NSW-WEST END @ 6' (147' N4E) from W.H.	08/05/14	1045	Grab	ND	ND	ND	NA	NA	NA	NA	NA	
160' N34E @ 8'	08/06/14	1105	Grab	ND	ND	ND	ND	ND	ND	ND	ND	
141' N14W @ 10'	08/06/14	1121	Grab	ND	ND	ND	ND	ND	ND	ND	ND	
NMOCD RELEASE CLOSURE STANDARDS -				-	-	**100**	**10**	-	-	-	**50**	

Notes:

OVM - Organic vapor meter or photo-ionization detector (PID).
TPH - Total petroleum hydrocarbons by US EPA Method 8015B.
BTEX - Benzene, toluene, ethylbenzene, total xylenes by US EPA Method 8021B.
ppm - Parts per million or milligram per kilogram (mg/Kg).
NA - Not available or applicable.
NMOCD - New Mexico Oil Conservation Division.

BP AMERICA PRODUCTION COMPANY

GCU # 215

Unit M, Sec. 16, T29N, R12W

Clean Up of Historical Release Discovered Beneath 95 bbl Below-grade Tank

SAMPLE ID	Map ID	SAMPLE DATE	SAMPLE TIME	SAMPLE TYPE	TPH (GRO) (ppm)	TPH (DRO) (ppm)	TPH Total (DRO+GR0) (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl - benzene (ppm)	Total Xylenes (ppm)	BTEX - Cumulative (ppm)
300' S2E @ 6'	EX1	04/28/14	1340	Grab	1,300	630	1,930	ND	ND	10.0	110	120
129' S46E @ 8'	A	05/05/14	0855	Grab	ND	ND	ND	ND	ND	ND	ND	ND
159' S32E @ 8'	B	05/05/14	0859	Grab	ND	ND	ND	ND	ND	ND	ND	ND
172' S24E @ 8'	C	05/05/14	0903	Grab	ND	ND	ND	ND	ND	ND	ND	ND
196' S18E @ 8'	D	05/05/14	0906	Grab	ND	ND	ND	ND	ND	ND	ND	ND
228' S11E @ 8'	E	05/05/14	0910	Grab	ND	ND	ND	ND	ND	ND	ND	ND
250' S7.5E @ 8'	F	05/05/14	0913	Grab	ND	ND	ND	ND	ND	ND	ND	ND
109' S60E @ 8'	G	05/05/14	0919	Grab	ND	ND	ND	ND	ND	ND	ND	ND
80' Due E @ 6'	EX2	05/05/14	0924	Grab	3,600	2,000	5,600	4.1	6.6	26	300	337
210' S58W	H	05/16/14	0900	Grab	ND	ND	ND	ND	ND	ND	ND	ND
252' S17W @8'	I	06/05/14	0846	Grab	ND	ND	ND	ND	ND	ND	ND	ND
253' S25W @ 8'	J	06/05/14	0853	Grab	ND	ND	ND	ND	ND	ND	ND	ND
241' S37W @ 10'	K	06/05/14	0900	Grab	ND	ND	ND	ND	ND	ND	ND	ND
210' S48W @ 11'	L	06/05/14	0906	Grab	ND	ND	ND	ND	ND	ND	ND	ND
170' S63W @ 11'	M	06/05/14	0911	Grab	ND	ND	ND	ND	ND	ND	ND	ND
141' S72W @ 11'	N	06/05/14	0916	Grab	ND	ND	ND	ND	ND	ND	ND	ND
121' S88W @ 11'	O	06/05/14	0920	Grab	ND	ND	ND	ND	ND	ND	ND	ND
113' N73W @ 10'	P	06/05/14	0925	Grab	ND	ND	ND	ND	ND	ND	ND	ND
NSW-EAST END @ 6' (150' N14E) from W.H.	Q	08/05/14	1015	Grab	ND	ND	ND	NA	NA	NA	NA	NA
NSW-WEST END @ 6' (147' N4E) from W.H.	R	08/05/14	1045	Grab	ND	ND	ND	NA	NA	NA	NA	NA
160' N34E @ 8'	S	08/06/14	1105	Grab	ND	ND	ND	ND	ND	ND	ND	ND
141' N14W @ 10'	T	08/06/14	1121	Grab	ND	ND	ND	ND	ND	ND	ND	ND
96' N41W @ 10'	U	08/14/14	1503	Grab	ND	ND	ND	ND	ND	ND	ND	ND
South 1 @ 10'	V	08/14/14	1439	Grab	ND	ND	ND	ND	ND	ND	ND	ND
South 2 @ 10'	W	08/14/14	1443	Grab	ND	ND	ND	ND	ND	ND	ND	ND
93' Due East @ 8'	X	08/14/14	1450	Grab	ND	ND	ND	ND	ND	ND	ND	ND
105' N54E @ 8'	Y	08/14/14	1452	Grab	ND	ND	ND	ND	ND	ND	ND	ND
114' N17W @ 10'	Z	08/14/14	1459	Grab	ND	ND	ND	ND	ND	ND	ND	ND
NMOCD RELEASE CLOSURE STANDARDS -					-	-	100	10	-	-	-	50

Notes:

TPH -	Total petroleum hydrocarbons by US EPA Method 8015B.
BTEX -	Benzene, toluene, ethylbenzene, total xylenes by US EPA Method 8021B.
ppm -	Parts per million or milligram per kilogram (mg/Kg).
NA -	Not available or applicable.
NMOCD -	New Mexico Oil Conservation Division.

REMEDIATION

LABORATORY

RESULTS

Analytical Report
Lab Order **1405301**
Date Reported: **5/14/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 129' S46E @ 8'
Project: GCU 215
Collection Date: 5/5/2014 8:55:00 AM
Lab ID: 1405301-001
Matrix: SOIL
Received Date: 5/7/2014 10:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/9/2014 5:35:13 PM	13058
Surr: DNOP	94.8	57.9-140		%REC	1	5/9/2014 5:35:13 PM	13058
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/9/2014 2:15:16 PM	13069
Surr: BFB	97.9	74.5-129		%REC	1	5/9/2014 2:15:16 PM	13069
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.046		mg/Kg	1	5/9/2014 2:15:16 PM	13069
Toluene	ND	0.046		mg/Kg	1	5/9/2014 2:15:16 PM	13069
Ethylbenzene	ND	0.046		mg/Kg	1	5/9/2014 2:15:16 PM	13069
Xylenes, Total	ND	0.092		mg/Kg	1	5/9/2014 2:15:16 PM	13069
Surr: 4-Bromofluorobenzene	109	80-120		%REC	1	5/9/2014 2:15:16 PM	13069
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	ND	30		mg/Kg	20	5/9/2014 1:19:10 PM	13092

Sample ID: A

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 159' S32E @ 8'
Project: GCU 215
Collection Date: 5/5/2014 8:59:00 AM
Lab ID: 1405301-002 **Matrix:** SOIL **Received Date:** 5/7/2014 10:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/9/2014 7:08:24 PM	13058
Surr: DNOP	102	57.9-140		%REC	1	5/9/2014 7:08:24 PM	13058
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/9/2014 3:41:07 PM	13069
Surr: BFB	91.1	74.5-129		%REC	1	5/9/2014 3:41:07 PM	13069
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.049		mg/Kg	1	5/9/2014 3:41:07 PM	13069
Toluene	ND	0.049		mg/Kg	1	5/9/2014 3:41:07 PM	13069
Ethylbenzene	ND	0.049		mg/Kg	1	5/9/2014 3:41:07 PM	13069
Xylenes, Total	ND	0.098		mg/Kg	1	5/9/2014 3:41:07 PM	13069
Surr: 4-Bromofluorobenzene	109	80-120		%REC	1	5/9/2014 3:41:07 PM	13069
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	ND	30		mg/Kg	20	5/9/2014 1:31:35 PM	13092

Sample ID: B

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 172' S24E @ 8'
Project: GCU 215
Collection Date: 5/5/2014 9:03:00 AM
Lab ID: 1405301-003 **Matrix:** SOIL **Received Date:** 5/7/2014 10:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/9/2014 7:39:23 PM	13058
Surr: DNOP	97.6	57.9-140		%REC	1	5/9/2014 7:39:23 PM	13058
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/9/2014 9:52:38 PM	13069
Surr: BFB	89.4	74.5-129		%REC	1	5/9/2014 9:52:38 PM	13069
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.047		mg/Kg	1	5/9/2014 9:52:38 PM	13069
Toluene	ND	0.047		mg/Kg	1	5/9/2014 9:52:38 PM	13069
Ethylbenzene	ND	0.047		mg/Kg	1	5/9/2014 9:52:38 PM	13069
Xylenes, Total	ND	0.094		mg/Kg	1	5/9/2014 9:52:38 PM	13069
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	5/9/2014 9:52:38 PM	13069
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	ND	30		mg/Kg	20	5/9/2014 1:43:59 PM	13092

Sample ID: C

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 196' S18E @ 8'
Project: GCU 215
Collection Date: 5/5/2014 9:06:00 AM
Lab ID: 1405301-004 **Matrix:** SOIL **Received Date:** 5/7/2014 10:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/9/2014 8:10:14 PM	13058
Surr: DNOP	98.4	57.9-140		%REC	1	5/9/2014 8:10:14 PM	13058
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/9/2014 10:21:17 PM	13069
Surr: BFB	86.9	74.5-129		%REC	1	5/9/2014 10:21:17 PM	13069
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.046		mg/Kg	1	5/9/2014 10:21:17 PM	13069
Toluene	ND	0.046		mg/Kg	1	5/9/2014 10:21:17 PM	13069
Ethylbenzene	ND	0.046		mg/Kg	1	5/9/2014 10:21:17 PM	13069
Xylenes, Total	ND	0.092		mg/Kg	1	5/9/2014 10:21:17 PM	13069
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	5/9/2014 10:21:17 PM	13069
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	ND	30		mg/Kg	20	5/9/2014 2:21:13 PM	13092

Sample ID: D

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 228' S11E @ 8'
Project: GCU 215
Collection Date: 5/5/2014 9:10:00 AM
Lab ID: 1405301-005 **Matrix:** SOIL **Received Date:** 5/7/2014 10:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/9/2014 9:12:22 PM	13058
Surr: DNOP	100	57.9-140		%REC	1	5/9/2014 9:12:22 PM	13058
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/9/2014 10:49:53 PM	13069
Surr: BFB	86.9	74.5-129		%REC	1	5/9/2014 10:49:53 PM	13069
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.047		mg/Kg	1	5/9/2014 10:49:53 PM	13069
Toluene	ND	0.047		mg/Kg	1	5/9/2014 10:49:53 PM	13069
Ethylbenzene	ND	0.047		mg/Kg	1	5/9/2014 10:49:53 PM	13069
Xylenes, Total	ND	0.095		mg/Kg	1	5/9/2014 10:49:53 PM	13069
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	5/9/2014 10:49:53 PM	13069
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	ND	30		mg/Kg	20	5/9/2014 2:33:38 PM	13092

Sample ID: E

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 250' S7 1/2 E @ 8'
Project: GCU 215
Collection Date: 5/5/2014 9:13:00 AM
Lab ID: 1405301-006
Matrix: SOIL
Received Date: 5/7/2014 10:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/9/2014 9:43:18 PM	13058
Surr: DNOP	101	57.9-140		%REC	1	5/9/2014 9:43:18 PM	13058
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/9/2014 11:18:30 PM	13069
Surr: BFB	87.8	74.5-129		%REC	1	5/9/2014 11:18:30 PM	13069
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.047		mg/Kg	1	5/9/2014 11:18:30 PM	13069
Toluene	ND	0.047		mg/Kg	1	5/9/2014 11:18:30 PM	13069
Ethylbenzene	ND	0.047		mg/Kg	1	5/9/2014 11:18:30 PM	13069
Xylenes, Total	ND	0.094		mg/Kg	1	5/9/2014 11:18:30 PM	13069
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	5/9/2014 11:18:30 PM	13069
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	ND	30		mg/Kg	20	5/9/2014 2:46:02 PM	13092

Sample ID: F

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 109' S60E @ 8'
Project: GCU 215
Collection Date: 5/5/2014 9:19:00 AM
Lab ID: 1405301-007
Matrix: SOIL
Received Date: 5/7/2014 10:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/9/2014 10:14:04 PM	13058
Surr: DNOP	95.3	57.9-140		%REC	1	5/9/2014 10:14:04 PM	13058
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/9/2014 11:47:04 PM	13069
Surr: BFB	87.6	74.5-129		%REC	1	5/9/2014 11:47:04 PM	13069
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.049		mg/Kg	1	5/9/2014 11:47:04 PM	13069
Toluene	ND	0.049		mg/Kg	1	5/9/2014 11:47:04 PM	13069
Ethylbenzene	ND	0.049		mg/Kg	1	5/9/2014 11:47:04 PM	13069
Xylenes, Total	ND	0.098		mg/Kg	1	5/9/2014 11:47:04 PM	13069
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	5/9/2014 11:47:04 PM	13069
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	ND	30		mg/Kg	20	5/9/2014 2:58:27 PM	13092

Sample ID: G

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 210' S58W
Project: GCU 215
Collection Date: 5/16/2014 9:00:00 AM
Lab ID: 1405976-001
Matrix: SOIL
Received Date: 5/22/2014 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/23/2014 6:27:01 PM	13321
Surr: DNOP	92.6	57.9-140		%REC	1	5/23/2014 6:27:01 PM	13321
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/23/2014 7:46:11 PM	13319
Surr: BFB	81.8	80-120		%REC	1	5/23/2014 7:46:11 PM	13319
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.048		mg/Kg	1	5/23/2014 7:46:11 PM	13319
Toluene	ND	0.048		mg/Kg	1	5/23/2014 7:46:11 PM	13319
Ethylbenzene	ND	0.048		mg/Kg	1	5/23/2014 7:46:11 PM	13319
Xylenes, Total	ND	0.095		mg/Kg	1	5/23/2014 7:46:11 PM	13319
Surr: 4-Bromofluorobenzene	93.7	80-120		%REC	1	5/23/2014 7:46:11 PM	13319
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	ND	30		mg/Kg	20	5/23/2014 5:32:33 PM	13335

Sample ID: H

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 252' S17W @ 8'
Project: GCU 215
Collection Date: 6/5/2014 8:46:00 AM
Lab ID: 1406321-001
Matrix: SOIL
Received Date: 6/6/2014 10:09:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/9/2014 10:51:13 PM	13570
Surr: DNOP	126	57.9-140		%REC	1	6/9/2014 10:51:13 PM	13570
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/7/2014 7:23:36 PM	13564
Surr: BFB	88.4	80-120		%REC	1	6/7/2014 7:23:36 PM	13564
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.049		mg/Kg	1	6/7/2014 7:23:36 PM	13564
Toluene	ND	0.049		mg/Kg	1	6/7/2014 7:23:36 PM	13564
Ethylbenzene	ND	0.049		mg/Kg	1	6/7/2014 7:23:36 PM	13564
Xylenes, Total	ND	0.099		mg/Kg	1	6/7/2014 7:23:36 PM	13564
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	6/7/2014 7:23:36 PM	13564
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	ND	30		mg/Kg	20	6/9/2014 3:54:57 PM	13585

Sample ID: I

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 253' S25W @ 8'
Project: GCU 215
Collection Date: 6/5/2014 8:53:00 AM
Lab ID: 1406321-002
Matrix: SOIL
Received Date: 6/6/2014 10:09:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/9/2014 11:20:43 PM	13570
Surr: DNOP	138	57.9-140		%REC	1	6/9/2014 11:20:43 PM	13570
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/7/2014 9:46:26 PM	13564
Surr: BFB	89.1	80-120		%REC	1	6/7/2014 9:46:26 PM	13564
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.048		mg/Kg	1	6/7/2014 9:46:26 PM	13564
Toluene	ND	0.048		mg/Kg	1	6/7/2014 9:46:26 PM	13564
Ethylbenzene	ND	0.048		mg/Kg	1	6/7/2014 9:46:26 PM	13564
Xylenes, Total	ND	0.097		mg/Kg	1	6/7/2014 9:46:26 PM	13564
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	6/7/2014 9:46:26 PM	13564
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	54	30		mg/Kg	20	6/9/2014 4:07:21 PM	13585

Sample ID: J

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 241' S37W @ 10'
Project: GCU 215
Collection Date: 6/5/2014 9:00:00 AM
Lab ID: 1406321-003
Matrix: SOIL
Received Date: 6/6/2014 10:09:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/9/2014 11:50:29 PM	13570
Surr: DNOP	130	57.9-140		%REC	1	6/9/2014 11:50:29 PM	13570
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/9/2014 9:31:40 PM	13564
Surr: BFB	93.4	80-120		%REC	1	6/9/2014 9:31:40 PM	13564
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.047		mg/Kg	1	6/9/2014 9:31:40 PM	13564
Toluene	ND	0.047		mg/Kg	1	6/9/2014 9:31:40 PM	13564
Ethylbenzene	ND	0.047		mg/Kg	1	6/9/2014 9:31:40 PM	13564
Xylenes, Total	ND	0.093		mg/Kg	1	6/9/2014 9:31:40 PM	13564
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	6/9/2014 9:31:40 PM	13564
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	ND	30		mg/Kg	20	6/9/2014 4:19:45 PM	13585

Sample ID: K

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 210' S48W @ 11'
Project: GCU 215
Collection Date: 6/5/2014 9:06:00 AM
Lab ID: 1406321-004 **Matrix:** SOIL **Received Date:** 6/6/2014 10:09:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/10/2014 12:49:38 AM	13570
Surr: DNOP	117	57.9-140		%REC	1	6/10/2014 12:49:38 AM	13570
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/9/2014 10:01:42 PM	13564
Surr: BFB	88.5	80-120		%REC	1	6/9/2014 10:01:42 PM	13564
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.049		mg/Kg	1	6/9/2014 10:01:42 PM	13564
Toluene	ND	0.049		mg/Kg	1	6/9/2014 10:01:42 PM	13564
Ethylbenzene	ND	0.049		mg/Kg	1	6/9/2014 10:01:42 PM	13564
Xylenes, Total	ND	0.098		mg/Kg	1	6/9/2014 10:01:42 PM	13564
Surr: 4-Bromofluorobenzene	99.4	80-120		%REC	1	6/9/2014 10:01:42 PM	13564
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	ND	30		mg/Kg	20	6/9/2014 4:32:10 PM	13585

Sample ID: L

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 170' S63W @ 11'
Project: GCU 215
Collection Date: 6/5/2014 9:11:00 AM
Lab ID: 1406321-005
Matrix: SOIL
Received Date: 6/6/2014 10:09:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/10/2014 1:19:24 AM	13570
Surr: DNOP	133	57.9-140		%REC	1	6/10/2014 1:19:24 AM	13570
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/7/2014 11:12:05 PM	13564
Surr: BFB	85.6	80-120		%REC	1	6/7/2014 11:12:05 PM	13564
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.049		mg/Kg	1	6/7/2014 11:12:05 PM	13564
Toluene	ND	0.049		mg/Kg	1	6/7/2014 11:12:05 PM	13564
Ethylbenzene	ND	0.049		mg/Kg	1	6/7/2014 11:12:05 PM	13564
Xylenes, Total	ND	0.099		mg/Kg	1	6/7/2014 11:12:05 PM	13564
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	6/7/2014 11:12:05 PM	13564
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	ND	30		mg/Kg	20	6/9/2014 5:09:24 PM	13585

Sample ID: M

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 141' S72W @ 11'
Project: GCU 215
Collection Date: 6/5/2014 9:16:00 AM
Lab ID: 1406321-006
Matrix: SOIL
Received Date: 6/6/2014 10:09:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/10/2014 1:48:50 AM	13570
Surr: DNOP	123	57.9-140		%REC	1	6/10/2014 1:48:50 AM	13570
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/7/2014 11:40:34 PM	13564
Surr: BFB	86.5	80-120		%REC	1	6/7/2014 11:40:34 PM	13564
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.049		mg/Kg	1	6/7/2014 11:40:34 PM	13564
Toluene	ND	0.049		mg/Kg	1	6/7/2014 11:40:34 PM	13564
Ethylbenzene	ND	0.049		mg/Kg	1	6/7/2014 11:40:34 PM	13564
Xylenes, Total	ND	0.097		mg/Kg	1	6/7/2014 11:40:34 PM	13564
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	6/7/2014 11:40:34 PM	13564
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	ND	30		mg/Kg	20	6/9/2014 5:21:48 PM	13585

Sample ID: N

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 121' S88W @ 11'
Project: GCU 215
Collection Date: 6/5/2014 9:20:00 AM
Lab ID: 1406321-007
Matrix: SOIL
Received Date: 6/6/2014 10:09:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/10/2014 2:18:30 AM	13570
Surr: DNOP	129	57.9-140		%REC	1	6/10/2014 2:18:30 AM	13570
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/8/2014 12:09:05 AM	13564
Surr: BFB	88.4	80-120		%REC	1	6/8/2014 12:09:05 AM	13564
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.047		mg/Kg	1	6/8/2014 12:09:05 AM	13564
Toluene	ND	0.047		mg/Kg	1	6/8/2014 12:09:05 AM	13564
Ethylbenzene	ND	0.047		mg/Kg	1	6/8/2014 12:09:05 AM	13564
Xylenes, Total	ND	0.093		mg/Kg	1	6/8/2014 12:09:05 AM	13564
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	6/8/2014 12:09:05 AM	13564
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	ND	30		mg/Kg	20	6/9/2014 5:34:13 PM	13585

Sample ID: O

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 113' N73W @ 10'
Project: GCU 215
Collection Date: 6/5/2014 9:25:00 AM
Lab ID: 1406321-008
Matrix: SOIL
Received Date: 6/6/2014 10:09:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/10/2014 2:48:16 AM	13570
Surr: DNOP	120	57.9-140		%REC	1	6/10/2014 2:48:16 AM	13570
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/9/2014 10:31:51 PM	13564
Surr: BFB	91.1	80-120		%REC	1	6/9/2014 10:31:51 PM	13564
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.049		mg/Kg	1	6/9/2014 10:31:51 PM	13564
Toluene	ND	0.049		mg/Kg	1	6/9/2014 10:31:51 PM	13564
Ethylbenzene	ND	0.049		mg/Kg	1	6/9/2014 10:31:51 PM	13564
Xylenes, Total	ND	0.097		mg/Kg	1	6/9/2014 10:31:51 PM	13564
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	6/9/2014 10:31:51 PM	13564
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	ND	30		mg/Kg	20	6/9/2014 5:46:37 PM	13585

Sample ID: P

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

Qualifiers:

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

Analytical Report
Lab Order **1408263**
Date Reported: **8/13/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU # 215
Lab ID: 1408263-001 **Matrix:** SOIL

Client Sample ID: NSW-EAST END @ 6' - (150',
Collection Date: 8/5/2014 10:15:00 AM
Received Date: 8/6/2014 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/8/2014 10:38:46 PM	14641
Surr: DNOP	106	57.9-140		%REC	1	8/8/2014 10:38:46 PM	14641
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/8/2014 3:03:50 PM	14652
Surr: BFB	92.8	80-120		%REC	1	8/8/2014 3:03:50 PM	14652

Sample ID: Q

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Project: GCU # 215
Lab ID: 1408263-002 **Matrix:** SOIL

Client Sample ID: NSW - WEST END @ 6' - (147',
Collection Date: 8/5/2014 10:45:00 AM
Received Date: 8/6/2014 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/8/2014 11:43:04 PM	14641
Surr: DNOP	103	57.9-140		%REC	1	8/8/2014 11:43:04 PM	14641
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/8/2014 5:55:57 PM	14652
Surr: BFB	92.4	80-120		%REC	1	8/8/2014 5:55:57 PM	14652

Sample ID: R

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

Qualifiers:

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

Analytical Report
Lab Order **1408322**
Date Reported: **8/13/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 160' N34E @ 8'
Project: GCU 215
Collection Date: 8/6/2014 11:05:00 AM
Lab ID: 1408322-001
Matrix: SOIL
Received Date: 8/7/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/9/2014 2:13:30 AM	14641
Surr: DNOP	102	57.9-140		%REC	1	8/9/2014 2:13:30 AM	14641
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/8/2014 9:45:08 PM	14652
Surr: BFB	90.7	80-120		%REC	1	8/8/2014 9:45:08 PM	14652
EPA METHOD 8021B: VOLATILES						Analyst: **DJF**	
Benzene	ND	0.049		mg/Kg	1	8/8/2014 9:45:08 PM	14652
Toluene	ND	0.049		mg/Kg	1	8/8/2014 9:45:08 PM	14652
Ethylbenzene	ND	0.049		mg/Kg	1	8/8/2014 9:45:08 PM	14652
Xylenes, Total	ND	0.098		mg/Kg	1	8/8/2014 9:45:08 PM	14652
Surr: 4-Bromofluorobenzene	98.7	80-120		%REC	1	8/8/2014 9:45:08 PM	14652
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	ND	30		mg/Kg	20	8/8/2014 3:30:47 PM	14668

Sample ID: S

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: 141' N14W @ 10'
Project: GCU 215
Collection Date: 8/6/2014 11:21:00 AM
Lab ID: 1408322-002 **Matrix:** SOIL **Received Date:** 8/7/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/9/2014 2:34:54 AM	14641
Surr: DNOP	66.3	57.9-140		%REC	1	8/9/2014 2:34:54 AM	14641
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/8/2014 10:13:48 PM	14652
Surr: BFB	90.1	80-120		%REC	1	8/8/2014 10:13:48 PM	14652
EPA METHOD 8021B: VOLATILES						Analyst: **DJF**	
Benzene	ND	0.049		mg/Kg	1	8/8/2014 10:13:48 PM	14652
Toluene	ND	0.049		mg/Kg	1	8/8/2014 10:13:48 PM	14652
Ethylbenzene	ND	0.049		mg/Kg	1	8/8/2014 10:13:48 PM	14652
Xylenes, Total	ND	0.097		mg/Kg	1	8/8/2014 10:13:48 PM	14652
Surr: 4-Bromofluorobenzene	97.5	80-120		%REC	1	8/8/2014 10:13:48 PM	14652
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	57	30		mg/Kg	20	8/8/2014 3:18:22 PM	14668

Sample ID: T

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

Qualifiers:

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

envirotech
Analytical Laboratory

Blagg Engineering	Project Name:	GCU 215	
PO Box 87	Project Number:	94034-0011	**Reported:**
Bloomfield NM, 87413	Project Manager:	Jeff Blagg	18-Aug-14 10:05

96' N41W @ 10'

P408058-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1433025	08/15/14	08/15/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1433025	08/15/14	08/15/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1433025	08/15/14	08/15/14	EPA 8021B	
p,m-Xylene	ND	0.10	mg/kg	1	1433025	08/15/14	08/15/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1433025	08/15/14	08/15/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1433025	08/15/14	08/15/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1433025	08/15/14	08/15/14	EPA 8021B	
Surrogate: Bromochlorobenzene		*102 %*		*50-150*	*1433025*	*08/15/14*	*08/15/14*	*EPA 8021B*	
Surrogate: 1,3-Dichlorobenzene		*102 %*		*50-150*	*1433025*	*08/15/14*	*08/15/14*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1433025	08/15/14	08/15/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	34.9	mg/kg	1	1433022	08/15/14	08/15/14	EPA 8015D	
Surrogate: Benzo[a]pyrene		*96.6 %*		*50-200*	*1433022*	*08/15/14*	*08/15/14*	*EPA 8015D*	
Cation/Anion Analysis									
Chloride	**22.4**	9.87	mg/kg	1	1433029	08/15/14	08/15/14	EPA 300.0	

Sample ID: U

envirotech
Analytical Laboratory

Blagg Engineering	Project Name:	GCU 215	
PO Box 87	Project Number:	94034-0011	**Reported:**
Bloomfield NM, 87413	Project Manager:	Jeff Blagg	26-Aug-14 09:58

South 1 @ 10'

P408071-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
p,m-Xylene	ND	0.10	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Surrogate: Bromochlorobenzene		*94.5 %*		*50-150*	*1434020*	*08/20/14*	*08/25/14*	*EPA 8021B*	
Surrogate: 1,3-Dichlorobenzene		*94.6 %*		*50-150*	*1434020*	*08/20/14*	*08/25/14*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	34.9	mg/kg	1	1434018	08/20/14	08/21/14	EPA 8015D	
Surrogate: Benzo[a]pyrene		*119 %*		*50-200*	*1434018*	*08/20/14*	*08/21/14*	*EPA 8015D*	
Cation/Anion Analysis									
Chloride	**20.6**	9.84	mg/kg	1	1434012	08/19/14	08/19/14	EPA 300.0	

Sample ID: V

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Analytical Laboratory

Blagg Engineering	Project Name:	GCU 215	
PO Box 87	Project Number:	94034-0011	**Reported:**
Bloomfield NM, 87413	Project Manager:	Jeff Blagg	26-Aug-14 09:58

South 2 @ 10'

P408071-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
p,m-Xylene	ND	0.10	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		*99.8 %*		*50-150*	*1434020*	*08/20/14*	*08/25/14*	*EPA 8021B*	
Surrogate: Bromochlorobenzene		*102 %*		*50-150*	*1434020*	*08/20/14*	*08/25/14*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	34.9	mg/kg	1	1434018	08/20/14	08/21/14	EPA 8015D	
Surrogate: Benzo[a]pyrene		*117 %*		*50-200*	*1434018*	*08/20/14*	*08/21/14*	*EPA 8015D*	
Cation/Anion Analysis									
Chloride	**20.8**	9.53	mg/kg	1	1434012	08/19/14	08/19/14	EPA 300.0	

Sample ID: W

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

envirotech
Analytical Laboratory

Blagg Engineering	Project Name:	GCU 215	
PO Box 87	Project Number:	94034-0011	**Reported:**
Bloomfield NM, 87413	Project Manager:	Jeff Blagg	26-Aug-14 09:58

93' Due East @ 8'

P408071-03 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
p,m-Xylene	ND	0.10	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		*97.3 %*		*50-150*	*1434020*	*08/20/14*	*08/25/14*	*EPA 8021B*	
Surrogate: Bromochlorobenzene		*98.6 %*		*50-150*	*1434020*	*08/20/14*	*08/25/14*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	35.0	mg/kg	1	1434018	08/20/14	08/21/14	EPA 8015D	
Surrogate: Benzo[a]pyrene		*99.1 %*		*50-200*	*1434018*	*08/20/14*	*08/21/14*	*EPA 8015D*	
Cation/Anion Analysis									
Chloride	ND	9.85	mg/kg	1	1434012	08/19/14	08/19/14	EPA 300.0	

Sample ID: X

envirotech
Analytical Laboratory

Blagg Engineering	Project Name:	GCU 215	
PO Box 87	Project Number:	94034-0011	**Reported:**
Bloomfield NM, 87413	Project Manager:	Jeff Blagg	26-Aug-14 09:58

105' N 54 E @ 8'

P408071-04 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
p,m-Xylene	ND	0.10	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		*96.2 %*		*50-150*	*1434020*	*08/20/14*	*08/25/14*	*EPA 8021B*	
Surrogate: Bromochlorobenzene		*98.4 %*		*50-150*	*1434020*	*08/20/14*	*08/25/14*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	34.9	mg/kg	1	1434018	08/20/14	08/21/14	EPA 8015D	
Surrogate: Benzo[a]pyrene		*101 %*		*50-200*	*1434018*	*08/20/14*	*08/21/14*	*EPA 8015D*	
Cation/Anion Analysis									
Chloride	**11.3**	9.82	mg/kg	1	1434012	08/19/14	08/19/14	EPA 300.0	

Sample ID: Y

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Blagg Engineering	Project Name:	GCU 215	
PO Box 87	Project Number:	94034-0011	**Reported:**
Bloomfield NM, 87413	Project Manager:	Jeff Blagg	26-Aug-14 09:58

114' N 17 W @10'

P408071-05 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
p,m-Xylene	ND	0.10	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8021B	
Surrogate: Bromochlorobenzene		*91.4 %*		*50-150*	*1434020*	*08/20/14*	*08/25/14*	*EPA 8021B*	
Surrogate: 1,3-Dichlorobenzene		*93.4 %*		*50-150*	*1434020*	*08/20/14*	*08/25/14*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1434020	08/20/14	08/25/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	34.9	mg/kg	1	1434018	08/20/14	08/21/14	EPA 8015D	
Surrogate: Benzo[a]pyrene		*124 %*		*50-200*	*1434018*	*08/20/14*	*08/21/14*	*EPA 8015D*	
Cation/Anion Analysis									
Chloride	**29.0**	9.85	mg/kg	1	1434012	08/19/14	08/19/14	EPA 300.0	

Sample ID: Z

REMEDIATION

LABORATORY

CHAIN-OF-CUSTODY

RECORDS

Blagg Engineering, Inc.

BP America

Mailing Address: P.O. Box 87
Bloomfield, NM 87413

Phone #: (505)320-1183

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

☒ Standard ☐ Rush

Project Name: GCU 215

Project #:

Project Manager: Jeff Blagg

Sampler: Jeff Blagg
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1405301	BTEX (8021)	TPH 8015B (GRO / DRO)	Chloride	Air Bubbles (Y or N)
05/05/2014	8:55	Soil	129' S46E @ 8'	4oz x 1	cool	-001	x	x	x	
05/05/2014	8:59	Soil	159' S32E @ 8'	4oz x 1	cool	-002	x	x	x	
05/05/2014	9:03	Soil	172' S24E @ 8'	4oz x 1	cool	-003	x	x	x	
05/05/2014	9:06	Soil	196' S18E @ 8'	4oz x 1	cool	-004	x	x	x	
05/05/2014	9:10	Soil	228' S11E @ 8'	4oz x 1	cool	-005	x	x	x	
05/05/2014	9:13	Soil	250' S7 1/2 E @ 8'	4oz x 1	cool	-006	x	x	x	
05/05/2014	9:19	Soil	109' S60E @ 8'	4oz x 1	cool	-007	x	x	x	
05/05/2014	9:24	Soil	80' Due E @ 6'	4oz x 1	cool	-008	x	x	x	

Date	Time	Relinquished by	Received by	Date	Time
5/6/2014	810	Jeff Blagg	Christine Walters	5/6/14	810
5/6/14	1800	Christine Walters			
			Received by:	05/07/14	0008

Remarks: Bill Blagg
BP Contact: Jeff Peace
peace.jeffrey@bp.com
Please copy results to:

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.

Client:	Blagg Engineering, Inc.
	BP America
Mailing Address:	P.O. Box 87
	Bloomfield, NM 87413
Phone #:	(505)320-1183
email or Fax#:	
QA/QC Package:	
☐ Standard	☐ Level 4 (Full Validation)
☐ Other	
☐ EDD (Type)	

☒ Standard ☐ Rush

Project Name: GCU 215

Project #:

Project Manager: Jeff Blagg

Sampler: Jeff Blagg

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.1

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1405971	BTEX (8021)		TPH 8015B (GRO / DRO)								Chloride		Air Bubbles (Y or N)
05/16/2014	9:00	Soil	210' S58W	4oz x 1	cool	-001	x		x								x		

Date: 5/21/2014	Time: 820	Relinquished by: Jeff Blagg	Received by: Christine Walters	Date: 5/21/2014	Time: 820
Date: 5/21/14	Time: 1800	Relinquished by: Christine Walters	Received by:	Date: 05/22/14	Time: 1000

Remarks: Bill Blagg
BP Contact: Jeff Peace Please copy results to:
peace.jeffrey@bp.com

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.

Chain-of-Custody Record

Client:	Blagg Engineering, Inc.
	BP America
Mailing Address:	P.O. Box 87
	Bloomfield, NM 87413
Phone #:	(505)320-1183
email or Fax#:	
QA/QC Package:	
☒ Standard	☐ Level 4 (Full Validation)
☐ Other	
☐ EDD (Type)	

☒ Standard ☐ Rush

Project Name: GCU 215

Project #:

Project Manager: Jeff Blagg

Sampler: Jeff Blagg

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.7°

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1406321	BTEX (8021)		TPH 8015B (GRO / DRO)								Chloride		Air Bubbles (Y or N)
							Analysis Request												
06/05/2014	8:46	Soil	252' S17W @ 8'	4oz x 1	cool	-001	x		x								x		
06/05/2014	8:53	Soil	253' S25W @ 8'	4oz x 1	cool	-002	x		x								x		
06/05/2014	9:00	Soil	241' S37W @ 10'	4oz x 1	cool	-003	x		x								x		
06/05/2014	9:06	Soil	210' S48W @ 11'	4oz x 1	cool	-004	x		x								x		
06/05/2014	9:11	Soil	170' S63W @ 11'	4oz x 1	cool	-005	x		x								x		
06/05/2014	9:16	Soil	141' S72W @ 11'	4oz x 1	cool	-006	x		x								x		
06/05/2014	9:20	Soil	121' S88W @ 11'	4oz x 1	cool	-007	x		x								x		
06/05/2014	9:25	Soil	113' N73W @ 10'	4oz x 1	cool	-008	x		x								x		

Date:	Time:	Relinquished by:	Received by:	Date	Time
6/5/2014	1250	Jeff Blagg	Christine Walker	6/5/14	1250
Date:	Time:	Relinquished by:	Received by:	Date	Time
6/5/14	1730	Christine Walker	[illegible]	06/06/14	10:09

Remarks: Bill Blagg
BP Contact: Jeff Peace
peace.jeffrey@bp.com

Please copy results to:

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.

Chain-of-Custody Record

Client: BLAGG ENGR. / BP AMERICA

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

Phone #: (505) 632-1199

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: GCU #215

Project #:

Project Manager: NELSON VELEZ

Sampler: NELSON VELEZ NV

On Ice: ☑ Yes ☐ No

Sample Temperature: 4

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1408263	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / ~~MRO~~) NV	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water - 300.1)		Grab sample	5 pt. composite sample
8/5/14	1015	SOIL	NSW - EAST END @ 6' -	4 oz. - 1	Cool	-001			✓											✓	
			(150', N14E) from W.H.																		
8/5/14	1045	SOIL	NSW - WEST END @ 6' -	4 oz. - 1	Cool	-002			✓											✓	
			(147', N4E) from W.H.																		

Date:	Time:	Relinquished by:	Received by:	Date	Time
8/5/14	1707			8/5/14	1707
Date:	Time:	Relinquished by:	Received by:	Date	Time
8/5/14	1910			08/06/14	0735

Remarks: **TPH (8015B) - GRO & DRO ONLY.**

Send invoice to :
Blagg Engineering, Inc.
P.O. Box 87
Bloomfield, NM 87413

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

Client: Blagg Engineering, Inc.
BP America
Mailing Address: P.O. Box 87
Bloomfield, NM 87413
Phone #: (505)320-1183
email or Fax#:
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

☒ Standard ☐ Rush
Project Name: GCU 215
Project #:
Project Manager: Jeff Blagg
Sampler: Jeff Blagg
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1408322	BTEX (8021)		TPH 8015B (GRO / DRO)									Chloride		Air Bubbles (Y or N)
08/06/2014	11:05	Soil	160' N34E @ 8'	4oz x 1	cool	-001	x		x									x		
08/06/2014	11:21	Soil	141' N14W @ 10'	4oz x 1	cool	-002	x		x									x		

Date:	Time:	Relinquished by:	Received by:	Date	Time
8/6/2014	1510			8/6/14	1510
8/6/14	1920			08/07/14	0745

Remarks: Bill Blagg
BP Contact: Jeff Peace
peace.jeffrey@bp.com
Please copy results to:

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.

CHAIN OF CUSTODY RECORD

17330

Client: Blagg Engineering Inc. BP America	Project Name / Location: GCU 215
Email results to: jeffcblagg@AOL.com Peace.jeffrey@BP.com	Sampler Name: J. Blagg
Client Phone No.: 505-320-1193	Client No.: 94034-0011

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative HNO_3	Preservative HCl	Preservative	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
96' N41W @ 10'	8/14/14	1503	P408058-01	1 x 4oz				X	X								X				Y	Y
										RUSH ASAP												
										BILL BLAGG												

	Date	Time		Date	Time
Relinquished by: (Signature) Jeff Blagg	8/14/2014	1555	Received by: (Signature)	8/14/14	1555
Relinquished by: (Signature)			Received by: (Signature)		

Sample Matrix

Soil ☒ Solid ☐ Sludge ☐ Aqueous ☐ Other ☐ _____

☐ Sample(s) dropped off after hours to secure drop off area.

8.1 7.9

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CHAIN OF CUSTODY RECORD

17334

Client:	Project Name / Location:
BLAGG ENGINEERING INC.	GCU 215
Email results to: jeffcblagg@AOL.com peace.jeffrey@BP.com	Sampler Name: J. BLAGG
Client Phone No.: 505-320-1183	Client No.: 94034-0011

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative HNO_3	Preservative HCl	Preservative	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
SOUTH 1 @ 10'	9/14/2014	1439	P408071-01	1 x 4oz				X	X								X				✓	✓
SOUTH 2 @ 10'	"	1443	P408071-02	"				X	X								X				✓	✓
93' DUE EAST @ 8'	"	1450	P408071-03	"				X	X								X				✓	✓
105' N54E @ 8'	"	1452	P408071-04	"				X	X								X				✓	✓
114' N17W @ 10'	"	1459	P408071-05	"				X	X								X				✓	✓
									BILL BLAGG													

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Jeff Blagg	9/15/2014	1221		8/15/14	1221
Relinquished by: (Signature)			Received by: (Signature)		

Sample Matrix
Soil ☒ Solid ☐ Sludge ☐ Aqueous ☐ Other ☐ _____

☐ Sample(s) dropped off after hours to secure drop off area.

9.7 9.5 10.3

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REMEDIATION LABORATORY QUALITY ASSURANCE / QUALITY CONTROL

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1209275**

14-Sep-12

Client: Blagg Engineering
Project: GCU #215

Sample ID	**MB-3668**	SampType:	**MBLK**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**3668**	RunNo:	**5415**					
Prep Date:	**9/10/2012**	Analysis Date:	**9/10/2012**	SeqNo:	**154533**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-3668**	SampType:	**LCS**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**3668**	RunNo:	**5415**					
Prep Date:	**9/10/2012**	Analysis Date:	**9/10/2012**	SeqNo:	**154534**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.2	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1209275**

14-Sep-12

Client: Blagg Engineering
Project: GCU #215

Sample ID	**MB-3669**	SampType:	**MBLK**	TestCode:	**EPA Method 8015B: Diesel Range Organics**
Client ID:	**PBS**	Batch ID:	**3669**	RunNo:	**5402**
Prep Date:	**9/10/2012**	Analysis Date:	**9/10/2012**	SeqNo:	**154019** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	11		10.00		111	77.6	140			

Sample ID	**LCS-3669**	SampType:	**LCS**	TestCode:	**EPA Method 8015B: Diesel Range Organics**
Client ID:	**LCSS**	Batch ID:	**3669**	RunNo:	**5402**
Prep Date:	**9/10/2012**	Analysis Date:	**9/10/2012**	SeqNo:	**154022** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	36	10	50.00	0	71.9	52.6	130			
Surr: DNOP	4.4		5.000		88.3	77.6	140			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1209275**

14-Sep-12

Client: Blagg Engineering
Project: GCU #215

Sample ID	**MB-3703**	SampType:	**MBLK**	TestCode:	**EPA Method 8015B: Diesel Range**					
Client ID:	**PBW**	Batch ID:	**3703**	RunNo:	**5423**					
Prep Date:	**9/11/2012**	Analysis Date:	**9/11/2012**	SeqNo:	**154966**	Units:	**%REC**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	1.2		1.000		118	79.5	166			

Sample ID	**LCS-3703**	SampType:	**LCS**	TestCode:	**EPA Method 8015B: Diesel Range**					
Client ID:	**LCSW**	Batch ID:	**3703**	RunNo:	**5423**					
Prep Date:	**9/11/2012**	Analysis Date:	**9/11/2012**	SeqNo:	**155418**	Units:	**%REC**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.49		0.5000		97.1	79.5	166			

Sample ID	**LCSD-3703**	SampType:	**LCSD**	TestCode:	**EPA Method 8015B: Diesel Range**					
Client ID:	**LCSS02**	Batch ID:	**3703**	RunNo:	**5423**					
Prep Date:	**9/11/2012**	Analysis Date:	**9/11/2012**	SeqNo:	**155419**	Units:	**%REC**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.42		0.5000		84.4	79.5	166	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1209275**

14-Sep-12

Client: Blagg Engineering
Project: GCU #215

Sample ID	**MB-3657**	SampType:	**MBLK**		TestCode:	**EPA Method 8015B: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**3657**		RunNo:	**5409**				
Prep Date:	**9/7/2012**	Analysis Date:	**9/10/2012**		SeqNo:	**154770**	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	1000		1000		102	84	116			

Sample ID	**LCS-3657**	SampType:	**LCS**		TestCode:	**EPA Method 8015B: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**3657**		RunNo:	**5409**				
Prep Date:	**9/7/2012**	Analysis Date:	**9/10/2012**		SeqNo:	**154771**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	74	117			
Surr: BFB	1100		1000		106	84	116			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1209275**

14-Sep-12

Client: Blagg Engineering
Project: GCU #215

Sample ID	**MB-3657**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID:	**3657**	RunNo:	**5409**					
Prep Date:	**9/7/2012**	Analysis Date:	**9/10/2012**	SeqNo:	**154791**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	**LCS-3657**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID:	**3657**	RunNo:	**5409**					
Prep Date:	**9/7/2012**	Analysis Date:	**9/10/2012**	SeqNo:	**154792**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.050	1.000	0	94.4	76.3	117			
Toluene	0.97	0.050	1.000	0	96.9	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	77	116			
Xylenes, Total	3.1	0.10	3.000	0	102	76.7	117			
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1209275

Received by/date: AT 09/08/12

Logged By: **Anne Thorne** 9/8/2012 11:15:00 AM Anne Thorne

Completed By: **Anne Thorne** 9/10/2012 Anne Thorne

Reviewed By: MG 09/10/12

Chain of Custody

1. Were seals intact? Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.8	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1209930**

01-Oct-12

Client: Blagg Engineering

Project: GCU 215

Sample ID **MB-3882**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID:	Batch ID: **3882**	RunNo: **5697**
Prep Date: **9/22/2012**	Analysis Date: **9/23/2012**	SeqNo: **163829** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
DNOP	11	0	10.00	0	109	77.6	140			

Sample ID **LCS-3882**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID:	Batch ID: **3882**	RunNo: **5697**
Prep Date: **9/22/2012**	Analysis Date: **9/23/2012**	SeqNo: **163830** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	35	10	50.00	0	69.6	52.6	130			
DNOP	4.7	0	5.000	0	93.5	77.6	140			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1209930**

01-Oct-12

Client: Blagg Engineering

Project: GCU 215

Sample ID **MB-3881**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID:	Batch ID: **3881**	RunNo: **5824**
Prep Date: **9/22/2012**	Analysis Date: **9/27/2012**	SeqNo: **167530** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
BFB	990	0	1000	0	99.3	84	116			

Sample ID **LCS-3881**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID:	Batch ID: **3881**	RunNo: **5824**
Prep Date: **9/22/2012**	Analysis Date: **9/27/2012**	SeqNo: **167531** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	74	117			
BFB	1000	0	1000	0	104	84	116			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1209930**

01-Oct-12

Client: Blagg Engineering

Project: GCU 215

Sample ID **MB-3881**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID:	Batch ID: **3881**	RunNo: **5783**
Prep Date: **9/22/2012**	Analysis Date: **9/26/2012**	SeqNo: **166796** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
4-Bromofluorobenzene	1.0	0	1.000	0	99.7	80	120			
m,p-Xylene	ND	0.050								
o-Xylene	ND	0.050								
1,2,4-Trimethylbenzene	0.0097	0.050								
1,3,5-Trimethylbenzene	0.0078	0.050								

Sample ID **LCS-3881**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID:	Batch ID: **3881**	RunNo: **5783**
Prep Date: **9/22/2012**	Analysis Date: **9/26/2012**	SeqNo: **166797** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.050	1.000	0	95.3	76.3	117			
Toluene	0.98	0.050	1.000	0	97.8	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	77	116			
Xylenes, Total	3.1	0.10	3.000	0	102	76.7	117			
4-Bromofluorobenzene	1.0	0	1.000	0	104	80	120			
m,p-Xylene	2.1	0.050								
o-Xylene	1.0	0.050								
1,2,4-Trimethylbenzene	1.0	0.050								
1,3,5-Trimethylbenzene	1.0	0.050								

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1209930

Received by/date: LM 09/21/12

Logged By: **Michelle Garcia** 9/21/2012 10:00:00 AM Michelle Garcia

Completed By: **Michelle Garcia** 9/21/2012 10:57:33 AM Michelle Garcia

Reviewed By: TO 09/21/12

Chain of Custody

1. Were seals intact? Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1405301**

14-May-14

Client: Blagg Engineering

Project: GCU 215

Sample ID	**MB-13092**	SampType:	**MBLK**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**13092**	RunNo:	**18523**					
Prep Date:	**5/9/2014**	Analysis Date:	**5/9/2014**	SeqNo:	**534804**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-13092**	SampType:	**LCS**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**13092**	RunNo:	**18523**					
Prep Date:	**5/9/2014**	Analysis Date:	**5/9/2014**	SeqNo:	**534805**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.5	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1405301**

14-May-14

Client: Blagg Engineering

Project: GCU 215

Sample ID	**MB-13058**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Diesel Range Organics**					
Client ID:	**PBS**	Batch ID:	**13058**	RunNo:	**18502**					
Prep Date:	**5/7/2014**	Analysis Date:	**5/9/2014**	SeqNo:	**534315**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.2		10.00		91.6	57.9	140			

Sample ID	**LCS-13058**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Diesel Range Organics**					
Client ID:	**LCSS**	Batch ID:	**13058**	RunNo:	**18502**					
Prep Date:	**5/7/2014**	Analysis Date:	**5/9/2014**	SeqNo:	**534338**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	101	60.8	145			
Surr: DNOP	4.4		5.000		87.9	57.9	140			

Sample ID	**1405301-001AMS**	SampType:	**MS**	TestCode:	**EPA Method 8015D: Diesel Range Organics**					
Client ID:	**129' S46E @ 8'**	Batch ID:	**13058**	RunNo:	**18502**					
Prep Date:	**5/8/2014**	Analysis Date:	**5/9/2014**	SeqNo:	**534863**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	9.9	49.60	0	96.0	40.1	152			
Surr: DNOP	4.9		4.960		98.1	57.9	140			

Sample ID	**1405301-001AMSD**	SampType:	**MSD**	TestCode:	**EPA Method 8015D: Diesel Range Organics**					
Client ID:	**129' S46E @ 8'**	Batch ID:	**13058**	RunNo:	**18502**					
Prep Date:	**5/8/2014**	Analysis Date:	**5/9/2014**	SeqNo:	**534864**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	10	50.20	0	110	40.1	152	14.6	32.1	
Surr: DNOP	5.2		5.020		103	57.9	140	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1405301**

14-May-14

Client: Blagg Engineering

Project: GCU 215

Sample ID	**MB-13069**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**13069**		RunNo:	**18509**				
Prep Date:	**5/8/2014**	Analysis Date:	**5/9/2014**		SeqNo:	**534514**	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		88.3	74.5	129			

Sample ID	**LCS-13069**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**13069**		RunNo:	**18509**				
Prep Date:	**5/8/2014**	Analysis Date:	**5/9/2014**		SeqNo:	**534515**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.1	71.7	134			
Surr: BFB	970		1000		97.3	74.5	129			

Sample ID	**1405301-001AMS**	SampType:	**MS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**129' S46E @ 8'**	Batch ID:	**13069**		RunNo:	**18509**				
Prep Date:	**5/8/2014**	Analysis Date:	**5/9/2014**		SeqNo:	**534518**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.6	22.98	0	106	69.5	145			
Surr: BFB	900		919.1		97.6	74.5	129			

Sample ID	**1405301-001AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**129' S46E @ 8'**	Batch ID:	**13069**		RunNo:	**18509**				
Prep Date:	**5/8/2014**	Analysis Date:	**5/9/2014**		SeqNo:	**534519**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.6	22.96	0	103	69.5	145	2.43	20	
Surr: BFB	900		918.3		97.6	74.5	129	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1405301**

14-May-14

Client: Blagg Engineering

Project: GCU 215

Sample ID	**MB-13069**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID:	**13069**	RunNo:	**18509**					
Prep Date:	**5/8/2014**	Analysis Date:	**5/9/2014**	SeqNo:	**534548**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		105	80	120			

Sample ID	**LCS-13069**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID:	**13069**	RunNo:	**18509**					
Prep Date:	**5/8/2014**	Analysis Date:	**5/9/2014**	SeqNo:	**534549**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	109	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.4	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.5	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Sample ID	**1405301-002AMS**	SampType:	**MS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**159' S32E @ 8'**	Batch ID:	**13069**	RunNo:	**18509**					
Prep Date:	**5/8/2014**	Analysis Date:	**5/9/2014**	SeqNo:	**534553**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.049	0.9747	0	110	67.4	135			
Toluene	1.0	0.049	0.9747	0.008535	103	72.6	135			
Ethylbenzene	1.0	0.049	0.9747	0	104	69.4	143			
Xylenes, Total	3.0	0.097	2.924	0.01300	102	70.8	144			
Surr: 4-Bromofluorobenzene	1.1		0.9747		115	80	120			

Sample ID	**1405301-002AMSD**	SampType:	**MSD**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**159' S32E @ 8'**	Batch ID:	**13069**	RunNo:	**18509**					
Prep Date:	**5/8/2014**	Analysis Date:	**5/9/2014**	SeqNo:	**534554**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.049	0.9737	0	95.2	67.4	135	14.1	20	
Toluene	0.87	0.049	0.9737	0.008535	88.1	72.6	135	15.5	20	
Ethylbenzene	0.87	0.049	0.9737	0	89.4	69.4	143	15.7	20	
Xylenes, Total	2.6	0.097	2.921	0.01300	86.9	70.8	144	16.1	20	
Surr: 4-Bromofluorobenzene	1.1		0.9737		112	80	120	0	0	

Qualifiers:

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

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: **1405301** RcptNo: 1

Received by/date: AG 05/07/14

Logged By: **Celina Sessa** **5/7/2014 10:08:00 AM**

Completed By: **Celina Sessa** **5/7/2014 4:49:07 PM**

Reviewed By: 05/08/14 @ 10:00

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1405976**

27-May-14

Client: Blagg Engineering

Project: GCU 215

Sample ID	**MB-13335**	SampType:	**MBLK**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**13335**	RunNo:	**18847**					
Prep Date:	**5/23/2014**	Analysis Date:	**5/23/2014**	SeqNo:	**544228**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-13335**	SampType:	**LCS**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**13335**	RunNo:	**18847**					
Prep Date:	**5/23/2014**	Analysis Date:	**5/23/2014**	SeqNo:	**544229**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.2	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1405976**

27-May-14

Client: Blagg Engineering

Project: GCU 215

Sample ID	**MB-13321**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Diesel Range Organics**
Client ID:	**PBS**	Batch ID:	**13321**	RunNo:	**18820**
Prep Date:	**5/22/2014**	Analysis Date:	**5/23/2014**	SeqNo:	**543460** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.5		10.00		95.1	57.9	140			

Sample ID	**LCS-13321**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Diesel Range Organics**
Client ID:	**LCSS**	Batch ID:	**13321**	RunNo:	**18820**
Prep Date:	**5/22/2014**	Analysis Date:	**5/23/2014**	SeqNo:	**543509** Units: **mg/Kg**

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	60.8	145			
Surr: DNOP	4.7		5.000		94.3	57.9	140			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1405976**

27-May-14

Client: Blagg Engineering
Project: GCU 215

Sample ID	**MB-13319**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**13319**		RunNo:	**18829**				
Prep Date:	**5/22/2014**	Analysis Date:	**5/23/2014**		SeqNo:	**543975**	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	810		1000		81.3	80	120			

Sample ID	**LCS-13319**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**13319**		RunNo:	**18829**				
Prep Date:	**5/22/2014**	Analysis Date:	**5/23/2014**		SeqNo:	**543976**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	25.00	0	80.0	71.7	134			
Surr: BFB	890		1000		88.7	80	120			

Sample ID	**MB-13327**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**13327**		RunNo:	**18829**				
Prep Date:	**5/22/2014**	Analysis Date:	**5/23/2014**		SeqNo:	**543996**	Units:	**%REC**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	850		1000		84.5	80	120			

Sample ID	**LCS-13327**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**13327**		RunNo:	**18829**				
Prep Date:	**5/22/2014**	Analysis Date:	**5/23/2014**		SeqNo:	**543997**	Units:	**%REC**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	900		1000		90.3	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1405976**

27-May-14

Client: Blagg Engineering

Project: GCU 215

Sample ID **MB-13319**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **13319**	RunNo: **18829**
Prep Date: **5/22/2014**	Analysis Date: **5/23/2014**	SeqNo: **544018** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.95		1.000		94.8	80	120			

Sample ID **LCS-13319**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **13319**	RunNo: **18829**
Prep Date: **5/22/2014**	Analysis Date: **5/23/2014**	SeqNo: **544019** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	109	80	120			
Toluene	1.0	0.050	1.000	0	99.5	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.1	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.8	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1405976 | RcptNo: 1

Received by/date: 05/22/14

Logged By: **Lindsay Mangin** 5/22/2014 10:00:00 AM

Completed By: **Lindsay Mangin** 5/22/2014 1:09:41 PM

Reviewed By: CS 05/22/14

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Not Present			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1406321**

11-Jun-14

Client: Blagg Engineering

Project: GCU 215

Sample ID	**MB-13585**	SampType:	**MBLK**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**13585**	RunNo:	**19158**					
Prep Date:	**6/9/2014**	Analysis Date:	**6/9/2014**	SeqNo:	**553664**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-13585**	SampType:	**LCS**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**13585**	RunNo:	**19158**					
Prep Date:	**6/9/2014**	Analysis Date:	**6/9/2014**	SeqNo:	**553665**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.6	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1406321**

11-Jun-14

Client: Blagg Engineering
Project: GCU 215

Sample ID	**MB-13570**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**13570**		RunNo:	**19120**				
Prep Date:	**6/6/2014**	Analysis Date:	**6/9/2014**		SeqNo:	**553331**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.1		10.00		81.4	57.9	140			

Sample ID	**LCS-13570**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**13570**		RunNo:	**19120**				
Prep Date:	**6/6/2014**	Analysis Date:	**6/9/2014**		SeqNo:	**553332**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	10	50.00	0	109	60.8	145			
Surr: DNOP	5.2		5.000		104	57.9	140			

Sample ID	**1406222-001AMS**	SampType:	**MS**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**BatchQC**	Batch ID:	**13570**		RunNo:	**19120**				
Prep Date:	**6/6/2014**	Analysis Date:	**6/9/2014**		SeqNo:	**553344**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	10	50.51	0	111	40.1	152			
Surr: DNOP	4.5		5.051		90.0	57.9	140			

Sample ID	**1406222-001AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**BatchQC**	Batch ID:	**13570**		RunNo:	**19120**				
Prep Date:	**6/6/2014**	Analysis Date:	**6/9/2014**		SeqNo:	**553350**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	100	10	50.25	0	207	40.1	152	59.6	32.1	RS
Surr: DNOP	4.7		5.025		93.8	57.9	140	0	0	

Sample ID	**MB-13578**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**13578**		RunNo:	**19152**				
Prep Date:	**6/9/2014**	Analysis Date:	**6/10/2014**		SeqNo:	**553568**	Units:	**%REC**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	12		10.00		116	57.9	140			

Sample ID	**LCS-13578**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**13578**		RunNo:	**19152**				
Prep Date:	**6/9/2014**	Analysis Date:	**6/10/2014**		SeqNo:	**553571**	Units:	**%REC**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.8		5.000		95.5	57.9	140			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1406321**

11-Jun-14

Client: Blagg Engineering

Project: GCU 215

Sample ID	**1406344-001AMS**	SampType: **MS**			TestCode: **EPA Method 8015D: Diesel Range Organics**					
Client ID:	**BatchQC**	Batch ID: **13578**			RunNo: **19152**					
Prep Date:	**6/9/2014**	Analysis Date: **6/10/2014**			SeqNo: **553574**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.6		4.916		113	57.9	140			

Sample ID	**1406344-001AMSD**	SampType: **MSD**			TestCode: **EPA Method 8015D: Diesel Range Organics**					
Client ID:	**BatchQC**	Batch ID: **13578**			RunNo: **19152**					
Prep Date:	**6/9/2014**	Analysis Date: **6/10/2014**			SeqNo: **553635**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	6.1		4.990		123	57.9	140	0	0	

Sample ID	**1406239-001AMS**	SampType: **MS**			TestCode: **EPA Method 8015D: Diesel Range Organics**					
Client ID:	**BatchQC**	Batch ID: **13555**			RunNo: **19152**					
Prep Date:	**6/5/2014**	Analysis Date: **6/10/2014**			SeqNo: **554431**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.040		85.5	57.9	140			

Sample ID	**1406239-001AMSD**	SampType: **MSD**			TestCode: **EPA Method 8015D: Diesel Range Organics**					
Client ID:	**BatchQC**	Batch ID: **13555**			RunNo: **19152**					
Prep Date:	**6/5/2014**	Analysis Date: **6/10/2014**			SeqNo: **554432**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.1		4.916		84.1	57.9	140	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1406321**

11-Jun-14

Client: Blagg Engineering
Project: GCU 215

Sample ID	**MB-13564**	SampType: **MBLK**		TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID: **13564**		RunNo: **19108**					
Prep Date:	**6/6/2014**	Analysis Date: **6/7/2014**		SeqNo: **552282**		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		87.8	80	120			

Sample ID	**LCS-13564**	SampType: **LCS**		TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID: **13564**		RunNo: **19108**					
Prep Date:	**6/6/2014**	Analysis Date: **6/7/2014**		SeqNo: **552283**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	90.8	71.7	134			
Surr: BFB	930		1000		93.0	80	120			

Sample ID	**1406239-001AMS**	SampType: **MS**		TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**BatchQC**	Batch ID: **13564**		RunNo: **19108**					
Prep Date:	**6/6/2014**	Analysis Date: **6/7/2014**		SeqNo: **552288**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.9	24.39	0	104	69.5	145			
Surr: BFB	950		975.6		97.5	80	120			

Sample ID	**1406239-001AMSD**	SampType: **MSD**		TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**BatchQC**	Batch ID: **13564**		RunNo: **19108**					
Prep Date:	**6/6/2014**	Analysis Date: **6/7/2014**		SeqNo: **552289**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.9	24.49	0	106	69.5	145	2.40	20	
Surr: BFB	940		979.4		96.0	80	120	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1406321**

11-Jun-14

Client: Blagg Engineering

Project: GCU 215

Sample ID	**1406314-001AMS**	SampType: **MS**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**BatchQC**	Batch ID: **13564**		RunNo: **19108**					
Prep Date:	**6/6/2014**	Analysis Date: **6/7/2014**		SeqNo: **552315**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.049	0.9852	0	120	67.4	135			
Toluene	1.1	0.049	0.9852	0	113	72.6	135			
Ethylbenzene	1.1	0.049	0.9852	0	113	69.4	143			
Xylenes, Total	3.3	0.099	2.956	0.01331	111	70.8	144			
Surr: 4-Bromofluorobenzene	1.1		0.9852		115	80	120			

Sample ID	**1406314-001AMSD**	SampType: **MSD**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**BatchQC**	Batch ID: **13564**		RunNo: **19108**					
Prep Date:	**6/6/2014**	Analysis Date: **6/7/2014**		SeqNo: **552316**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.049	0.9833	0	111	67.4	135	8.44	20	
Toluene	1.0	0.049	0.9833	0	104	72.6	135	8.15	20	
Ethylbenzene	1.0	0.049	0.9833	0	104	69.4	143	8.32	20	
Xylenes, Total	3.0	0.098	2.950	0.01331	102	70.8	144	8.92	20	
Surr: 4-Bromofluorobenzene	1.1		0.9833		114	80	120	0	0	

Sample ID	**LCS-13564**	SampType: **LCS**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID: **13564**		RunNo: **19108**					
Prep Date:	**6/6/2014**	Analysis Date: **6/7/2014**		SeqNo: **552328**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	107	80	120			
Toluene	0.99	0.050	1.000	0	98.7	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.9	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.7	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		116	80	120			

Sample ID	**MB-13564**	SampType: **MBLK**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID: **13564**		RunNo: **19108**					
Prep Date:	**6/6/2014**	Analysis Date: **6/7/2014**		SeqNo: **552329**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1406321 | RcptNo: 1

Received by/date: CS 06/06/14

Logged By: **Michelle Garcia** 6/6/2014 10:09:00 AM Michelle Garcia

Completed By: **Michelle Garcia** 6/6/2014 11:59:47 AM Michelle Garcia

Reviewed By: 06/06/14

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.7	Good	Not Present			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408263**

13-Aug-14

Client: Blagg Engineering
Project: GCU # 215

Sample ID	**MB-14641**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Diesel Range Organics**
Client ID:	**PBS**	Batch ID:	**14641**	RunNo:	**20418**
Prep Date:	**8/7/2014**	Analysis Date:	**8/7/2014**	SeqNo:	**594027** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.5		10.00		95.4	57.9	140			

Sample ID	**LCS-14641**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Diesel Range Organics**
Client ID:	**LCSS**	Batch ID:	**14641**	RunNo:	**20418**
Prep Date:	**8/7/2014**	Analysis Date:	**8/7/2014**	SeqNo:	**594028** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	102	68.6	130			
Surr: DNOP	4.6		5.000		91.8	57.9	140			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408263**

13-Aug-14

Client: Blagg Engineering
Project: GCU # 215

Sample ID	**MB-14652**	SampType: **MBLK**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID: **14652**			RunNo: **20463**					
Prep Date:	**8/7/2014**	Analysis Date: **8/8/2014**			SeqNo: **595435**		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		900		1000		90.2	80	120			

Sample ID	**LCS-14652**	SampType: **LCS**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID: **14652**			RunNo: **20463**					
Prep Date:	**8/7/2014**	Analysis Date: **8/8/2014**			SeqNo: **595436**		Units: **mg/Kg**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		30	5.0	25.00	0	120	65.8	139			
Surr: BFB		1000		1000		99.6	80	120			

Sample ID	**MB-14669**	SampType: **MBLK**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID: **14669**			RunNo: **20505**					
Prep Date:	**8/8/2014**	Analysis Date: **8/11/2014**			SeqNo: **596079**		Units: **%REC**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		930		1000		92.6	80	120			

Sample ID	**LCS-14669**	SampType: **LCS**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID: **14669**			RunNo: **20505**					
Prep Date:	**8/8/2014**	Analysis Date: **8/11/2014**			SeqNo: **596080**		Units: **%REC**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		1000		1000		102	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: **1408263** | RcptNo: 1

Received by/date: AT 08/06/14

Logged By: **Lindsay Mangin** **8/6/2014 7:35:00 AM**

Completed By: **Lindsay Mangin** **8/6/2014 1:09:55 PM**

Reviewed By: 08/07/14

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.6	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408322**

13-Aug-14

Client: Blagg Engineering

Project: GCU 215

Sample ID	**MB-14668**	SampType:	**MBLK**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**14668**	RunNo:	**20492**					
Prep Date:	**8/8/2014**	Analysis Date:	**8/8/2014**	SeqNo:	**595856**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-14668**	SampType:	**LCS**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**14668**	RunNo:	**20492**					
Prep Date:	**8/8/2014**	Analysis Date:	**8/8/2014**	SeqNo:	**595857**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.0	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408322**

13-Aug-14

Client: Blagg Engineering

Project: GCU 215

Sample ID	**MB-14641**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Diesel Range Organics**
Client ID:	**PBS**	Batch ID:	**14641**	RunNo:	**20418**
Prep Date:	**8/7/2014**	Analysis Date:	**8/7/2014**	SeqNo:	**594027** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.5		10.00		95.4	57.9	140			

Sample ID	**LCS-14641**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Diesel Range Organics**
Client ID:	**LCSS**	Batch ID:	**14641**	RunNo:	**20418**
Prep Date:	**8/7/2014**	Analysis Date:	**8/7/2014**	SeqNo:	**594028** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	102	68.6	130			
Surr: DNOP	4.6		5.000		91.8	57.9	140			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408322**

13-Aug-14

Client: Blagg Engineering
Project: GCU 215

Sample ID	**MB-14652**	SampType: **MBLK**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID: **14652**			RunNo: **20463**					
Prep Date:	**8/7/2014**	Analysis Date: **8/8/2014**			SeqNo: **595435**		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		900		1000		90.2	80	120			

Sample ID	**LCS-14652**	SampType: **LCS**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID: **14652**			RunNo: **20463**					
Prep Date:	**8/7/2014**	Analysis Date: **8/8/2014**			SeqNo: **595436**		Units: **mg/Kg**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		30	5.0	25.00	0	120	65.8	139			
Surr: BFB		1000		1000		99.6	80	120			

Sample ID	**MB-14669**	SampType: **MBLK**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID: **14669**			RunNo: **20505**					
Prep Date:	**8/8/2014**	Analysis Date: **8/11/2014**			SeqNo: **596079**		Units: **%REC**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		930		1000		92.6	80	120			

Sample ID	**LCS-14669**	SampType: **LCS**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID: **14669**			RunNo: **20505**					
Prep Date:	**8/8/2014**	Analysis Date: **8/11/2014**			SeqNo: **596080**		Units: **%REC**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		1000		1000		102	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408322**

13-Aug-14

Client: Blagg Engineering
Project: GCU 215

Sample ID	**MB-14652**	SampType: **MBLK**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID: **14652**		RunNo: **20463**					
Prep Date:	**8/7/2014**	Analysis Date: **8/8/2014**		SeqNo: **595792**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID	**LCS-14652**	SampType: **LCS**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID: **14652**		RunNo: **20463**					
Prep Date:	**8/7/2014**	Analysis Date: **8/8/2014**		SeqNo: **595793**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	100	80	120			
Toluene	0.98	0.050	1.000	0	98.1	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID	**MB-14669**	SampType: **MBLK**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID: **14669**		RunNo: **20505**					
Prep Date:	**8/8/2014**	Analysis Date: **8/11/2014**		SeqNo: **596101**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		105	80	120			

Sample ID	**LCS-14669**	SampType: **LCS**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID: **14669**		RunNo: **20505**					
Prep Date:	**8/8/2014**	Analysis Date: **8/11/2014**		SeqNo: **596102**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1408322 | RcptNo: 1

Received by/date: AG 08/07/14

Logged By: **Michelle Garcia** 8/7/2014 7:45:00 AM Michelle Garcia

Completed By: **Michelle Garcia** 8/7/2014 11:36:30 AM Michelle Garcia

Reviewed By: 08/07/14

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

envirotech
Analytical Laboratory

Analytical Report

Report Summary

Client: Blagg Engineering

Chain Of Custody Number: 17330

Samples Received: 8/14/2014 3:55:00PM

Job Number: 94034-0011

Work Order: P408058

Project Name/Location: GCU 215

Entire Report Reviewed By:  Date: 8/18/14

Tim Cain, Laboratory Manager

Supplement to analytical report generated on: 8/18/14 9:49 am

envirotech
Analytical Laboratory

Blagg Engineering	Project Name:	GCU 215	
PO Box 87	Project Number:	94034-0011	**Reported:**
Bloomfield NM, 87413	Project Manager:	Jeff Blagg	18-Aug-14 10:05

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
96' N41W @ 10'	P408058-01A	Soil	08/14/14	08/14/14	Glass Jar, 4 oz.

envirotech
Analytical Laboratory

Blagg Engineering	Project Name:	GCU 215	
PO Box 87	Project Number:	94034-0011	**Reported:**
Bloomfield NM, 87413	Project Manager:	Jeff Blagg	18-Aug-14 10:05

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1433025 - Purge and Trap EPA 5030A										
Blank (1433025-BLK1)				Prepared: 14-Aug-14 Analyzed: 15-Aug-14						
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
p,m-Xylene	ND	0.10	"							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
Surrogate: 1,3-Dichlorobenzene	*50.2*		*ug/L*	*50.0*		*100*	*50-150*			
Surrogate: Bromochlorobenzene	*50.0*		*"*	*50.0*		*100*	*50-150*			
Duplicate (1433025-DUP1)			**Source: P408041-01**	Prepared: 14-Aug-14 Analyzed: 15-Aug-14						
Benzene	ND	0.05	mg/kg		ND				30	
Toluene	ND	0.05	"		ND				30	
Ethylbenzene	ND	0.05	"		ND				30	
p,m-Xylene	ND	0.10	"		ND				30	
o-Xylene	ND	0.05	"		ND				30	
Surrogate: 1,3-Dichlorobenzene	*50.9*		*ug/L*	*50.0*		*102*	*50-150*			
Surrogate: Bromochlorobenzene	*51.1*		*"*	*50.0*		*102*	*50-150*			
Matrix Spike (1433025-MS1)			**Source: P408041-01**	Prepared: 14-Aug-14 Analyzed: 15-Aug-14						
Benzene	49.9		ug/L	50.0	ND	99.8	39-150			
Toluene	50.6		"	50.0	ND	101	46-148			
Ethylbenzene	48.7		"	50.0	ND	97.5	32-160			
p,m-Xylene	97.9		"	100	ND	97.9	46-148			
o-Xylene	48.9		"	50.0	ND	97.9	46-148			
Surrogate: 1,3-Dichlorobenzene	*50.5*		*"*	*50.0*		*101*	*50-150*			
Surrogate: Bromochlorobenzene	*50.1*		*"*	*50.0*		*100*	*50-150*			

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Analytical Laboratory

Blagg Engineering	Project Name:	GCU 215	
PO Box 87	Project Number:	94034-0011	**Reported:**
Bloomfield NM, 87413	Project Manager:	Jeff Blagg	18-Aug-14 10:05

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1433022 - DRO Extraction EPA 3550M										
Blank (1433022-BLK1)				Prepared & Analyzed: 14-Aug-14						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Surrogate: Benzo[a]pyrene	*16.9*		*"*	*20.0*		*84.5*	*50-200*			
LCS (1433022-BS1)				Prepared & Analyzed: 14-Aug-14						
Diesel Range Organics (C10-C28)	574	25.0	mg/kg	499		115	38-132			
Surrogate: Benzo[a]pyrene	*19.9*		*"*	*20.0*		*99.5*	*50-200*			
Matrix Spike (1433022-MS1)	**Source: P408053-01**			Prepared: 14-Aug-14 Analyzed: 15-Aug-14						
Diesel Range Organics (C10-C28)	9110	349	mg/kg	499	9020	19.2	38-132			SPK1
Surrogate: Benzo[a]pyrene	*16.3*		*"*	*20.0*		*81.9*	*50-200*			
Matrix Spike Dup (1433022-MSD1)	**Source: P408053-01**			Prepared: 14-Aug-14 Analyzed: 15-Aug-14						
Diesel Range Organics (C10-C28)	9220	349	mg/kg	498	9020	40.1	38-132	1.14	20	
Surrogate: Benzo[a]pyrene	*16.6*		*"*	*19.9*		*83.5*	*50-200*			

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Analytical Laboratory

Blagg Engineering	Project Name:	GCU 215	
PO Box 87	Project Number:	94034-0011	**Reported:**
Bloomfield NM, 87413	Project Manager:	Jeff Blagg	18-Aug-14 10:05

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1433025 - Purge and Trap EPA 5030A										
Blank (1433025-BLK1)				Prepared: 14-Aug-14 Analyzed: 15-Aug-14						
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg							
Duplicate (1433025-DUP1)		**Source: P408041-01**		Prepared: 14-Aug-14 Analyzed: 15-Aug-14						
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg		ND				30	
Matrix Spike (1433025-MS1)		**Source: P408041-01**		Prepared: 14-Aug-14 Analyzed: 15-Aug-14						
Gasoline Range Organics (C6-C10)	0.46		mg/L	0.450	ND	103	75-125			

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Analytical Laboratory

Blagg Engineering	Project Name:	GCU 215	
PO Box 87	Project Number:	94034-0011	**Reported:**
Bloomfield NM, 87413	Project Manager:	Jeff Blagg	18-Aug-14 10:05

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1433029 - Anion Extraction EPA 300.0										
Blank (1433029-BLK1)				Prepared & Analyzed: 15-Aug-14						
Chloride	ND	9.90	mg/kg							
LCS (1433029-BS1)				Prepared & Analyzed: 15-Aug-14						
Chloride	495	9.99	mg/kg	500		99.1	90-110			
Matrix Spike (1433029-MS1)	**Source: P408057-01**			Prepared & Analyzed: 15-Aug-14						
Chloride	505	9.94	mg/kg	497	ND	102	80-120			
Matrix Spike Dup (1433029-MSD1)	**Source: P408057-01**			Prepared & Analyzed: 15-Aug-14						
Chloride	506	9.96	mg/kg	498	ND	102	80-120	0.301	20	

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Analytical Laboratory

Blagg Engineering	Project Name:	GCU 215	
PO Box 87	Project Number:	94034-0011	**Reported:**
Bloomfield NM, 87413	Project Manager:	Jeff Blagg	18-Aug-14 10:05

Notes and Definitions

SPK1	The spike recovery for this QC sample is outside of control limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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Analytical Laboratory

Analytical Report

Report Summary

Client: Blagg Engineering

Chain Of Custody Number: 17334

Samples Received: 8/15/2014 12:21:00PM

Job Number: 94034-0011

Work Order: P408071

Project Name/Location: GCU 215

Entire Report Reviewed By:  Date: 8/26/14

Tim Cain, Laboratory Manager

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Analytical Laboratory

Blagg Engineering	Project Name:	GCU 215	
PO Box 87	Project Number:	94034-0011	**Reported:**
Bloomfield NM, 87413	Project Manager:	Jeff Blagg	26-Aug-14 09:58

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
South 1 @ 10'	P408071-01A	Soil	08/14/14	08/15/14	Glass Jar, 4 oz.
South 2 @ 10'	P408071-02A	Soil	08/14/14	08/15/14	Glass Jar, 4 oz.
93' Due East @ 8'	P408071-03A	Soil	08/14/14	08/15/14	Glass Jar, 4 oz.
105' N 54 E @ 8'	P408071-04A	Soil	08/14/14	08/15/14	Glass Jar, 4 oz.
114' N 17 W @10'	P408071-05A	Soil	08/14/14	08/15/14	Glass Jar, 4 oz.

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Analytical Laboratory

Blagg Engineering	Project Name:	GCU 215	
PO Box 87	Project Number:	94034-0011	**Reported:**
Bloomfield NM, 87413	Project Manager:	Jeff Blagg	26-Aug-14 09:58

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1434020 - Purge and Trap EPA 5030A										
Blank (1434020-BLK1)				Prepared: 20-Aug-14 Analyzed: 21-Aug-14						
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
p,m-Xylene	ND	0.10	"							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
Surrogate: 1,3-Dichlorobenzene	*0.0505*		*"*	*0.0498*		*101*	*50-150*			
Surrogate: Bromochlorobenzene	*0.0501*		*"*	*0.0498*		*101*	*50-150*			
Duplicate (1434020-DUP1)			**Source: P408075-01**	Prepared: 20-Aug-14 Analyzed: 22-Aug-14						
Benzene	ND	0.05	mg/kg		ND				30	
Toluene	ND	0.05	"		ND				30	
Ethylbenzene	ND	0.05	"		ND				30	
p,m-Xylene	ND	0.10	"		ND				30	
o-Xylene	ND	0.05	"		ND				30	
Surrogate: 1,3-Dichlorobenzene	*0.0568*		*"*	*0.0499*		*114*	*50-150*			
Surrogate: Bromochlorobenzene	*0.0578*		*"*	*0.0499*		*116*	*50-150*			
Matrix Spike (1434020-MS1)			**Source: P408075-01**	Prepared: 20-Aug-14 Analyzed: 22-Aug-14						
Benzene	58.4		ug/L	50.0	ND	117	39-150			
Toluene	58.4		"	50.0	ND	117	46-148			
Ethylbenzene	58.1		"	50.0	ND	116	32-160			
p,m-Xylene	116		"	100	ND	116	46-148			
o-Xylene	57.4		"	50.0	ND	115	46-148			
Surrogate: 1,3-Dichlorobenzene	*0.0541*		*mg/kg*	*0.0500*		*108*	*50-150*			
Surrogate: Bromochlorobenzene	*0.0521*		*"*	*0.0500*		*104*	*50-150*			

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Analytical Laboratory

Blagg Engineering	Project Name:	GCU 215	
PO Box 87	Project Number:	94034-0011	**Reported:**
Bloomfield NM, 87413	Project Manager:	Jeff Blagg	26-Aug-14 09:58

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1434018 - DRO Extraction EPA 3550M										
Blank (1434018-BLK1)				Prepared: 20-Aug-14 Analyzed: 21-Aug-14						
Diesel Range Organics (C10-C28)	ND	24.9	mg/kg							
Surrogate: Benzo[a]pyrene	*19.7*		*"*	*19.9*		*99.0*	*50-200*			
LCS (1434018-BS1)				Prepared: 20-Aug-14 Analyzed: 21-Aug-14						
Diesel Range Organics (C10-C28)	514	25.0	mg/kg	499		103	38-132			
Surrogate: Benzo[a]pyrene	*20.2*		*"*	*20.0*		*101*	*50-200*			
Matrix Spike (1434018-MS1)	**Source: P408075-01**			Prepared: 20-Aug-14 Analyzed: 21-Aug-14						
Diesel Range Organics (C10-C28)	474	29.9	mg/kg	498	276	39.7	38-132			
Surrogate: Benzo[a]pyrene	*18.3*		*"*	*19.9*		*91.7*	*50-200*			
Matrix Spike Dup (1434018-MSD1)	**Source: P408075-01**			Prepared: 20-Aug-14 Analyzed: 21-Aug-14						
Diesel Range Organics (C10-C28)	508	30.0	mg/kg	500	276	46.4	38-132	6.89	20	
Surrogate: Benzo[a]pyrene	*19.6*		*"*	*20.0*		*98.1*	*50-200*			

envirotech
Analytical Laboratory

Blagg Engineering	Project Name:	GCU 215	
PO Box 87	Project Number:	94034-0011	**Reported:**
Bloomfield NM, 87413	Project Manager:	Jeff Blagg	26-Aug-14 09:58

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1434020 - Purge and Trap EPA 5030A										
Blank (1434020-BLK1)				Prepared: 20-Aug-14 Analyzed: 21-Aug-14						
Gasoline Range Organics (C6-C10)	ND	4.98	mg/kg							
Duplicate (1434020-DUP1)		**Source: P408075-01**		Prepared: 20-Aug-14 Analyzed: 22-Aug-14						
Gasoline Range Organics (C6-C10)	ND	0.10	mg/kg		ND				30	
Matrix Spike (1434020-MS1)		**Source: P408075-01**		Prepared: 20-Aug-14 Analyzed: 22-Aug-14						
Gasoline Range Organics (C6-C10)	0.43		mg/L	0.450	ND	96.4	75-125			

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Analytical Laboratory

Blagg Engineering	Project Name:	GCU 215	
PO Box 87	Project Number:	94034-0011	**Reported:**
Bloomfield NM, 87413	Project Manager:	Jeff Blagg	26-Aug-14 09:58

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1434012 - Anion Extraction EPA 300.0										
Blank (1434012-BLK1)				Prepared & Analyzed: 19-Aug-14						
Chloride	ND	9.99	mg/kg							
LCS (1434012-BS1)				Prepared & Analyzed: 19-Aug-14						
Chloride	479	9.89	mg/kg	495		96.9	90-110			
Matrix Spike (1434012-MS1)	**Source: P408076-01**			Prepared & Analyzed: 19-Aug-14						
Chloride	487	9.91	mg/kg	496	ND	98.2	80-120			
Matrix Spike Dup (1434012-MSD1)	**Source: P408076-01**			Prepared & Analyzed: 19-Aug-14						
Chloride	493	9.98	mg/kg	499	ND	98.8	80-120	1.32	20	

envirotech
Analytical Laboratory

Blagg Engineering	Project Name:	GCU 215	
PO Box 87	Project Number:	94034-0011	**Reported:**
Bloomfield NM, 87413	Project Manager:	Jeff Blagg	26-Aug-14 09:58

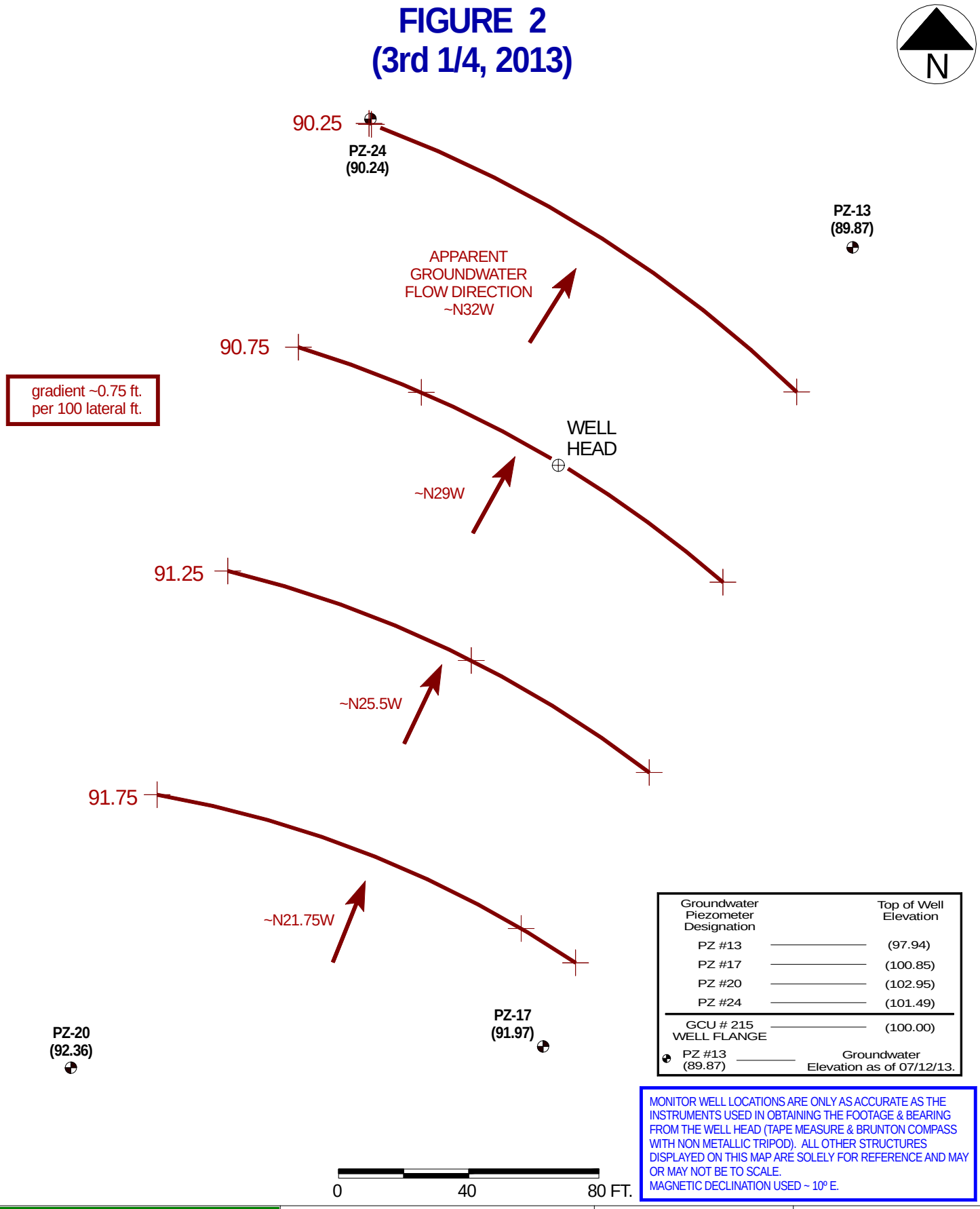
Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

GROUNDWATER

DATA

FIGURE 2
(3rd 1/4, 2013)



Groundwater Piezometer Designation		Top of Well Elevation
PZ #13		(97.94)
PZ #17		(100.85)
PZ #20		(102.95)
PZ #24		(101.49)
GCU # 215 WELL FLANGE		(100.00)

PZ #13 (89.87) — Groundwater Elevation as of 07/12/13.

MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE & BEARING FROM THE WELL HEAD (TAPE MEASURE & BRUNTON COMPASS WITH NON METALLIC TRIPOD). ALL OTHER STRUCTURES DISPLAYED ON THIS MAP ARE SOLELY FOR REFERENCE AND MAY OR MAY NOT BE TO SCALE.
MAGNETIC DECLINATION USED ~ 10° E.

BP AMERICA PRODUCTION COMPANY

GCU # 215

SW/4 SW/4 SEC. 16, T29N, R12W

SAN JUAN COUNTY, NEW MEXICO

B LAGG ENGINEERING, I NC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1199

PROJECT: RELEASE INVESTIGATION

DRAWN BY: NJV

FILENAME: GCU 215-GW 07-12-13.SKF

DRAFTED: 07/12/13 NJV

GROUNDWATER GRADIENT MAP

07/13

BP AMERICA PRODUCTION COMPANY

GCU # 215 - (Release beneath 95 BGT)

Unit Letter M, Section 16, T29N, R12W - API Number: 30-045-11622

Field & Laboratory Data from Groundwater Monitor Wells

	FIELD PARAMETERS							
SAMPLE ID	**SAMPLE DATE**	**SAMPLE TIME**	**DEPTH TO WATER (feet)**	**TOTAL MW LENGTH (feet)**	**pH**	**Conductivity (µmhos/cm)**	**Temperature (°Celcius)**	**Volume Purged (gallons)**
MW # 1 (up gradient)	05/20/15	0825	10.47	18.00	7.07	2,400	12.3	3.75
"	09/26/17	1310	11.43		7.19	2,900	18.4	3.50
MW # 2 (source area)	01/28/15	1415	10.21	18.60	7.65	NA	14.9	3.25
"	09/26/17	1700	10.99		6.90	2,500	18.9	3.75
MW # 3 (source area)	01/28/15	1245	9.34	20.00	7.98	NA	15.2	4.00
"	09/26/17	1605	10.10		6.97	1,900	17.9	4.75
MW # 4 (source area)	01/28/15	1110	8.88	18.75	8.29	NA	14.2	3.25
"	09/26/17	1510	9.49		7.29	2,300	18.9	4.50
MW # 5 (down gradient)	02/12/15	1245	11.47	17.60	8.11	2,500	15.6	3.00
"	09/26/17	1415	12.21		7.03	2,100	18.8	2.75
LP AGT PRODUCED WATER	02/12/15	1150	NA	NA	NA	NA	NA	NA
				NMWQCC STANDARDS -	**6 - 9**			

	LABORATORY PARAMETERS								
SAMPLE ID	**Fluoride (mg/L)**	**Chloride (mg/L)**	**Sulfate (mg/L)**	**Nitrate-Nitrite as N (mg/L)**	**TDS (mg/L)**	**Benzene (µg/L)**	**Toluene (µg/L)**	**Ethyl - benzene (µg/L)**	**Total Xylenes (µg/L)**
MW # 1 (up gradient)	**1.9**	61	**960**	ND	**1,760**	ND	ND	ND	ND
"	**2.5**	83	**1300**	ND	**3,090**	ND	ND	ND	ND
MW # 2 (source area)	1.5	120	**1400**	ND	**2,950**	ND	ND	7.9	2.8
"	0.86	85	**1400**	ND	**3,100**	ND	ND	ND	ND
MW # 3 (source area)	1.3	65	**1000**	ND	**1,990**	ND	ND	ND	ND
"	0.84	62	**860**	ND	**1,820**	ND	ND	1.5	ND
MW # 4 (source area)	**2.0**	61	**640**	ND	**1,760**	**13**	ND	23	10
"	**1.3**	64	**960**	ND	**2,010**	ND	ND	ND	ND
MW # 5 (down gradient)	**3.5**	87	**650**	ND	**1,860**	3.1	ND	4.0	ND
"	**2.1**	84	**880**	ND	**1,980**	ND	ND	ND	ND
LP AGT PRODUCED WATER	**4.8**	NA	ND	ND	**11,800**	NA	NA	NA	NA
NMWQCC STANDARDS -	**1.6**	**250**	**600**	**10**	**1,000**	**10**	**750**	**750**	**620**

Notes: **Groundwater standards are applied to values assigned in blue highlighted boxes or confirmed background levels, which ever is higher.**
Depth to water measured from casing top of monitor well.

MW - Monitor well
µmhos/cm - Micromhos per centimeter
TDS - Total dissolved solids
mg/L - Milligram per Liter
µg/L - **Microgram per liter**
ND - Not detected at Reporting Limit
NMWQCC - New Mexico Water Quality Control Commission

BP AMERICA PRODUCTION COMPANY

GROUNDWATER FIELD DATA & LAB BTEX RESULTS

GCU # 215 - 95 BGT (Tank ID: A)
UNIT M, SEC. 16, T29N, R12W

REVISED DATE: October 11 , 2017
Submitted by Blagg Engineering, Inc.

SAMPLE DATE	WELL NAME / NUMBER	DEPTH TO WATER (ft)	WELL DEPTH (ft)	TDS (mg/L)	CONDUCT. (umhos)	pH	FREE PHASE PRODUCT (ft)	BTEX US EPA METHOD 8021B or 8260B BENZENE (ppb)	TOLUENE (ppb)	ETHYL BENZENE (ppb)	TOTAL XYLENES (ppb)
05/20/15	MW #1	10.47	18.00	1,760	2,400	7.07		ND	ND	ND	ND
09/26/17		11.43		3,090	2,900	7.19		ND	ND	ND	ND
01/28/15	MW #2	10.21	18.60	2,950	-	7.65		ND	ND	7.9	2.8
09/26/17		10.99		3,100	2,500	6.90		ND	ND	ND	ND
01/28/15	MW #3	9.34	20.00	1,990	-	7.98		ND	ND	ND	ND
09/26/17		10.10		1,820	1,900	6.97		ND	ND	1.5	ND
01/28/15	MW #4	8.88	18.75	1,760	-	8.29		**13**	ND	23	10
05/20/15		8.53			2,300	6.91		**6.1**	ND	26	3.0
08/24/15		9.25			2,200	7.23		**1.2**	ND	8.6	ND
12/02/15		9.03			2,300	7.08		**ND**	ND	ND	ND
02/23/16		8.75			2,300	6.84		**ND**	ND	1.1	2.3
05/25/16		6.80			2,400	7.41		**ND**	ND	ND	ND
08/18/16		9.31			2,200	7.25		**ND**	ND	ND	ND
12/06/16		9.03			2,300	-		**ND**	ND	ND	ND
02/23/17		8.73			2,400	7.43		**ND**	ND	ND	ND
09/26/17		9.49		2,010	2,300	7.29		**ND**	ND	ND	ND
02/12/15	MW #5	11.47	17.60	1,860	2,500	8.11		3.1	ND	4.0	ND
12/02/15		11.75			2,500	7.00		ND	ND	1.3	ND
02/23/16		11.51			2,400	6.73		ND	ND	ND	ND
05/25/16		11.51			2,300	7.25		ND	ND	ND	ND
08/18/16		12.04			2,000	7.13		ND	ND	ND	ND
12/06/16		11.80			2,200	-		ND	ND	ND	ND
02/23/17		11.50			2,300	7.28		ND	ND	ND	ND
06/27/17		12.51			2,400	7.24		ND	ND	ND	5.3
09/26/17		12.21		1,980	2,100	7.03		ND	ND	ND	ND
							NMWQCC GROUNDWATER STANDARDS	10	750	750	620

NOTES :

1) **RESULTS IN BOLD RED TYPE INDICATE EXCEEDING NMWQCC STANDARDS .**
2) **RESULTS IN BOLD BLUE TYPE INDICATE BELOW NMWQCC STANDARDS AFTER PREVIOUS RESULTS IN BOLD RED TYPE EXCEEDED .**
3) **ND INDICATES NOT DETECTED AT THE REPORTING LIMITS (less than regulatory standards of at least a magnitude of 10) .**
4) **NMWQCC INDICATES NEW MEXICO WATER QUALITY CONTROL COMMISSION.**

MONITOR WELL

BORE HOLE LOGS

MW #1 through MW #5

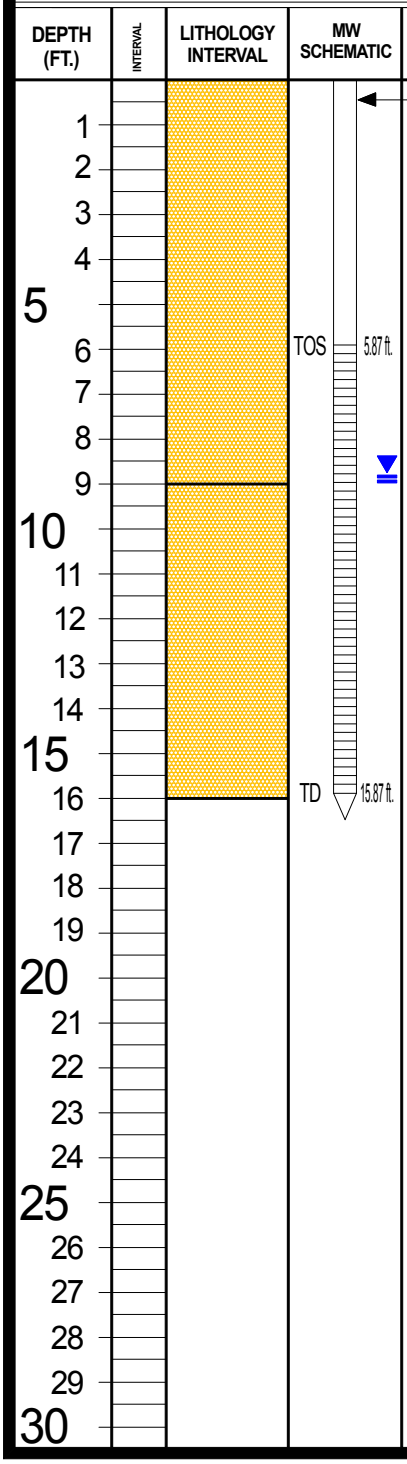
BLAGG ENGINEERING, INC.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW # 1

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION CO.
LOCATION NAME:	GCU # 215 API #: 3004511622 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED:	MOBILE DRILL RIG
BORING LOCATION:	312 FEET, S13W FROM WELL HEAD (up gradient of impacted area).

BORING #.....	BH - 1
MW #.....	1
PAGE #.....	1
DATE STARTED	10/20/14
DATE FINISHED	10/20/14
OPERATOR.....	KP
LOGGED BY.....	JCB



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 2.13 FT. ABOVE GRADE.

DARK YELLOWISH ORANGE SILTY SAND, NON COHESIVE, DRY TO SLIGHTLY MOIST, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 9.0 FEET BELOW GRADE).

GROUNDWATER ~ 8.74 ft. BELOW GRADE ; MEASURED 01/16/15.

SAME AS ABOVE EXCEPT SATURATED, LOOSE (9.0 - 16.0 FEET BELOW GRADE)

TOTAL LENGTH OF PIPE - 18.00 FEET

NOTES:
- SILTY SAND.
- **TOS** - Top of screen of monitor well.
- **TD** - Total depth/bottom extent of monitor well.

Monitor well consist of 2 inch PVC piping - casing from 2.13 feet above grade to 5.87 feet below grade, 0.020 slotted screen between 5.87 to 15.87 feet below grade, sand packed annular to 5.0 feet below grade, bentonite grout between 3.0 to 5.0 feet below grade, grout to surface. Steel well protector encompassing exposed casing top, concreted at base and secured hinged lid with padlock.

DRAWING: GCU 215 MW-1 2015-10-20.SKF | DATE: 10/30/15 | DWN BY: NJV

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

MW # 2

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION CO.
LOCATION NAME:	GCU # 215 API #: 3004511622 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED:	MOBILE DRILL RIG
BORING LOCATION:	153 FEET, S46W FROM WELL HEAD (former 95 bbl BGT location).

BORING #.....	BH - 2
MW #.....	2
PAGE #.....	2
DATE STARTED	10/20/14
DATE FINISHED	10/20/14
OPERATOR.....	KP
LOGGED BY.....	JCB

DEPTH (FT.) | INTERVAL | LITHOLOGY INTERVAL | MW SCHEMATIC

FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 2.08 FT. ABOVE GRADE.

DARK YELLOWISH ORANGE SILTY SAND (fill material), NON COHESIVE, DRY TO SLIGHTLY MOIST, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 10.0 FEET BELOW GRADE).

TOS 6.52 ft.

GROUNDWATER ~ 8.19 ft. BELOW GRADE ; MEASURED 01/16/15.

SAME AS ABOVE EXCEPT SATURATED, LOOSE (10.0 - 18.0 FEET BELOW GRADE)

TD 16.52 ft.

TOTAL LENGTH OF PIPE - 18.60 FEET

NOTES:
- SILTY SAND.
- **TOS** - Top of screen of monitor well.
- **TD** - Total depth/bottom extent of monitor well.

Monitor well consist of 2 inch PVC piping - casing from 2.08 feet above grade to 6.52 feet below grade, 0.020 slotted screen between 6.52 to 16.52 feet below grade, sand packed annular to 5.0 feet below grade, bentonite grout between 3.0 to 5.0 feet below grade, grout to surface. Steel well protector encompassing exposed casing top, concreted at base and secured hinged lid with padlock.

DRAWING: GCU 215 MW-2 2015-10-20.SKF | DATE: 10/30/15 | DWN BY: NJV

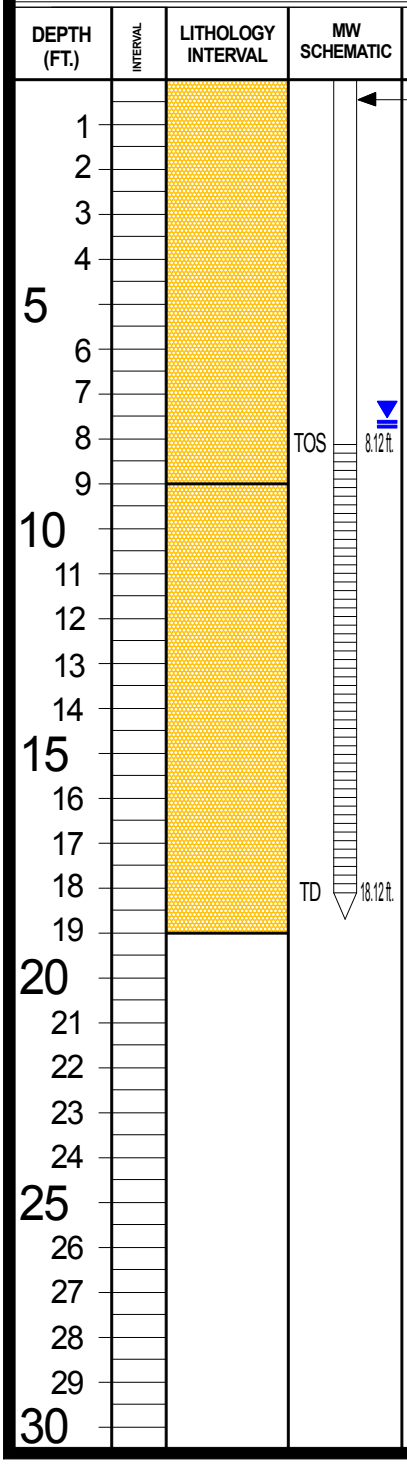
BLAGG ENGINEERING, INC.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW # 3

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION CO.
LOCATION NAME:	GCU # 215 API #: 3004511622 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED:	MOBILE DRILL RIG
BORING LOCATION:	179 FEET, S1.5W FROM WELL HEAD (former 300 bbl production tank location).

BORING #.....	BH - 3
MW #.....	3
PAGE #.....	3
DATE STARTED	10/20/14
DATE FINISHED	10/20/14
OPERATOR.....	KP
LOGGED BY.....	JCB



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 1.88 FT. ABOVE GRADE.

DARK YELLOWISH ORANGE SILTY SAND (fill material), NON COHESIVE, DRY TO SLIGHTLY MOIST, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 9.0 FEET BELOW GRADE).

GROUNDWATER ~ 7.53 ft. BELOW GRADE ; MEASURED 01/16/15.

SAME AS ABOVE EXCEPT SATURATED, LOOSE (9.0 - 19.0 FEET BELOW GRADE)

TOTAL LENGTH OF PIPE - 20.00 FEET

NOTES:
- SILTY SAND.

TOS - Top of screen of monitor well.
TD - Total depth/bottom extent of monitor well.

Monitor well consist of 2 inch PVC piping - casing from 1.88 feet above grade to 8.12 feet below grade, 0.020 slotted screen between 8.12 to 18.12 feet below grade, sand packed annular to 7.0 feet below grade, bentonite grout between 5.0 to 7.0 feet below grade, grout to surface. Steel well protector encompassing exposed casing top, concreted at base and secured hinged lid with padlock.

DRAWING: GCU 215 MW-3 2015-10-20.SKF | DATE: 10/30/15 | DWN BY: NJV

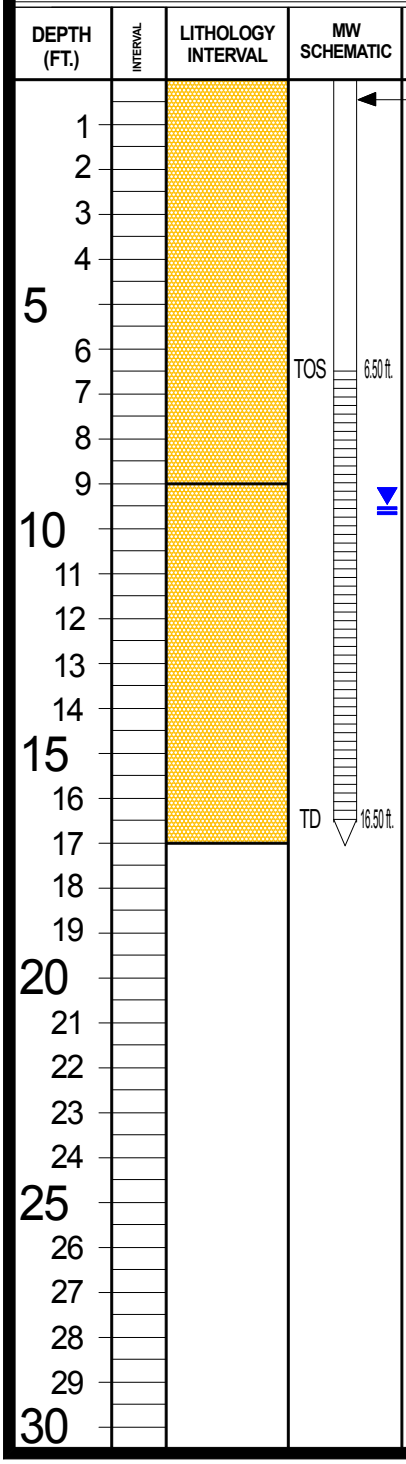
BLAGG ENGINEERING, INC.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW # 4

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION CO.
LOCATION NAME:	GCU # 215 API #: 3004511622 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED:	MOBILE DRILL RIG
BORING LOCATION:	127 FEET, N12.25EW FROM WELL HEAD (down gradient end of impacted area).

BORING #.....	BH - 4
MW #.....	4
PAGE #.....	4
DATE STARTED	10/21/14
DATE FINISHED	10/21/14
OPERATOR.....	KP
LOGGED BY.....	JCB



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 2.25 FT. ABOVE GRADE.

DARK YELLOWISH ORANGE SILTY SAND (fill material), NON COHESIVE, DRY TO SLIGHTLY MOIST, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 9.0 FEET BELOW GRADE).

GROUNDWATER ~ 9.44 ft. BELOW GRADE; MEASURED 01/16/15.

SAME AS ABOVE EXCEPT SATURATED, LOOSE (9.0 - 17.0 FEET BELOW GRADE)

TOTAL LENGTH OF PIPE - 18.75 FEET

NOTES:
- SILTY SAND.
- **TOS** - Top of screen of monitor well.
- **TD** - Total depth/bottom extent of monitor well.

Monitor well consist of 2 inch PVC piping - casing from 2.25 feet above grade to 6.50 feet below grade, 0.020 slotted screen between 6.50 to 16.50 feet below grade, sand packed annular to 5.0 feet below grade, bentonite grout between 3.0 to 5.0 feet below grade, grout to surface. Steel well protector encompassing exposed casing top, concreted at base and secured hinged lid with padlock.

DRAWING: GCU 215 MW-4 2015-10-21.SKF | DATE: 10/30/15 | DWN BY: NJV

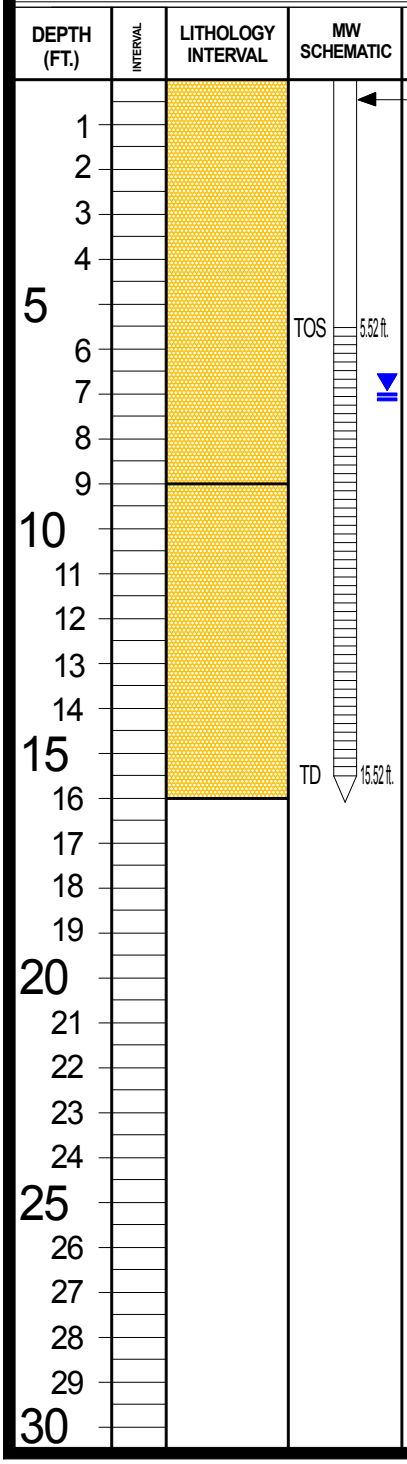
BLAGG ENGINEERING, INC.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

MW # 5

BORE / TEST HOLE REPORT

CLIENT:	BP AMERICA PRODUCTION CO.
LOCATION NAME:	GCU # 215 API #: 3004511622 UNIT M, SEC. 16, T29N, R12W
CONTRACTOR:	BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.
EQUIPMENT USED:	MOBILE DRILL RIG
BORING LOCATION:	323.5 FEET, N12E FROM WELL HEAD.

BORING #.....	BH - 5
MW #.....	5
PAGE #.....	5
DATE STARTED	10/21/14
DATE FINISHED	10/21/14
OPERATOR.....	KP
LOGGED BY.....	JCB



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 2.08 FT. ABOVE GRADE.

DARK YELLOWISH ORANGE SILTY SAND, NON COHESIVE, DRY TO SLIGHTLY MOIST, FIRM, NO APPARENT HYDROCARBON ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (0.0 - 9.0 FEET BELOW GRADE).

GROUNDWATER ~ 6.83 ft. BELOW GRADE ; MEASURED 01/16/15.

SAME AS ABOVE EXCEPT SATURATED, LOOSE (9.0 - 16.0 FEET BELOW GRADE)

TOTAL LENGTH OF PIPE - 17.60 FEET

NOTES:
- SILTY SAND.
- **TOS** - Top of screen of monitor well.
- **TD** - Total depth/bottom extent of monitor well.

Monitor well consist of 2 inch PVC piping - casing from 2.08 feet above grade to 5.52 feet below grade, 0.020 slotted screen between 5.52 to 15.52 feet below grade, sand packed annular to 4.0 feet below grade, bentonite grout between 2.0 to 4.0 feet below grade, grout to surface. Steel well protector encompassing exposed casing top, concreted at base and secured hinged lid with padlock.

DRAWING: GCU 215 MW-5 2015-10-21.SKF | DATE: 10/30/15 | DWN BY: NJV

MONITOR WELL

FIELD LOGS

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : **BP AMERICA PROD. CO.**

CHAIN-OF-CUSTODY # : N / A

GCU # 215 - 95 BGT (Tank ID: A)
UNIT M, SEC. 16, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : January 28, 2015
Filename : GCU 215 mw log 2015-01-28.xls

DEVELOPER / SAMPLER : N J V
PROJECT MANAGER : J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	-	-	-	18.00	-	-	-	-	-
2	-	-	10.21	18.60	1415	7.65	-	14.9	3.25
3	-	-	9.34	20.00	1245	7.98	-	15.2	4.00
4	-	-	8.88	18.75	1110	8.29	-	14.2	3.25
5	-	-	-	17.60	-	-	-	-	-
			INSTRUMENT CALIBRATIONS =			4.01/7.00/10.00	-		
			DATE & TIME =			01/26/15	1000		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes: 2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2 ".

All monitor wells initially developed on 01/16/15 to evaluate purging, recovery rate, & for sediment removal. Excellent recovery in all monitor wells except MW # 2 (fair/good). Collected samples from MW #2, #3, #4 for BTEX & general chemistry parameters. Purged wells using 2 inch submersible electrical pump, new/clear vinyl tubing, and with brass adjustable flow valve attachment added near sampling end of tubing.

MW #1 - 312 ft., S13W, MW #2 - 153 ft., S46W, MW #3 - 179 ft., S1.5W, MW #4 - 127 ft., N12.5W, MW #5 - 323.5 ft., N12E. (all measurements reference from well head).

Top of casing MW # 1 ~ 2.13 ft., MW # 2 ~ 2.08 ft., MW # 3 ~ 1.88 ft., MW # 4 ~ 2.25 ft., MW # 5 ~ 2.08 ft. above grade.

on-site	**9:45 AM**	temp	**40 F**
off-site	**2:45 PM**	temp	**54 F**
sky cond.		**Sunny**	
wind speed	**0 - 10**	direct.	**E - W**

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : **BP AMERICA PROD. CO.**

CHAIN-OF-CUSTODY # : N / A

GCU # 215 - 95 BGT (Tank ID: A)
UNIT M, SEC. 16, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : February 12, 2015
Filename : GCU 215 mw log 2015-02-12.xls

DEVELOPER / SAMPLER : N J V
PROJECT MANAGER : J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	-	-	-	18.00	-	-	-	-	-
2	-	-	-	18.60	-	-	-	-	-
3	-	-	-	20.00	-	-	-	-	-
4	-	-	-	18.75	-	-	-	-	-
5	-	-	11.47	17.60	1245	8.11	2,500	15.6	3.00
			INSTRUMENT CALIBRATIONS =			4.01/7.00/10.00	-		
			DATE & TIME =			02/12/15	0900		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes: 2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2 ".

All monitor wells initially developed on 01/16/15 to evaluate purging, recovery rate, & for sediment removal. Excellent recovery in MW # 5. Collected samples from MW #5 for BTEX & general chemistry parameters, also from low profile above-grade tank for general chemistry only. Purged wells using 2 inch submersible electrical pump, new/clear vinyl tubing, and with brass adjustable flow valve attachment added near sampling end of tubing.

Top of casing MW # 1 ~ 2.13 ft., MW # 2 ~ 2.08 ft., MW # 3 ~ 1.88 ft., MW # 4 ~ 2.25 ft., MW # 5 ~ 2.08 ft. above grade.

on-site	**11:35 AM**	temp	**47 F**
off-site	**1:00 PM**	temp	**51 F**
sky cond.		**Sunny**	
wind speed	**0 - 10**	direct.	**NNW**

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : **BP AMERICA PROD. CO.**

CHAIN-OF-CUSTODY # : N / A

GCU # 215 - 95 BGT (Tank ID: A)
UNIT M, SEC. 16, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : May 20, 2015

Filename : GCU 215 mw log 2015-05-20.xls

DEVELOPER / SAMPLER : N J V

PROJECT MANAGER : J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	-	-	10.47	18.00	0825	7.07	2,400	12.3	3.75
2	-	-	-	18.60	-	-	-	-	-
3	-	-	-	20.00	-	-	-	-	-
4	-	-	8.53	18.75	0920	6.91	2,300	13.2	5.00
5	-	-	-	17.60	-	-	-	-	-
			INSTRUMENT CALIBRATIONS =			4.01/7.00/10.00	-		
			DATE & TIME =			05/11/15	0600		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes: 2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in MW #1 & #4. Collected samples from MW #1 for general chemistry parameters & BTEX, collected sample from MW #4 for BTEX only. Purged wells using 2 inch submersible electrical pump, new/clear vinyl tubing , and with brass adjustable flow valve attachment added near sampling end of tubing .

Top of casing MW # 1 ~ 2.13 ft., MW # 2 ~ 2.08 ft., MW # 3 ~ 1.88 ft., MW # 4 ~ 2.25 ft., MW # 5 ~ 2.08 ft. above grade.

on-site	**7:30 AM**	temp	**47 F**
off-site	**9:30 AM**	temp	**56 F**
sky cond.		**Sunny**	
wind speed	**5 - 10**	direct.	**E - ESE**

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : **BP AMERICA PROD. CO.**

CHAIN-OF-CUSTODY # : N / A

GCU # 215 - 95 BGT (Tank ID: A)
UNIT M, SEC. 16, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : August 24, 2015

Filename : GCU 215 mw log 2015-08-24.xls

DEVELOPER / SAMPLER : N J V

PROJECT MANAGER : J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	-	-	-	18.00	-	-	-	-	-
2	-	-	10.73	18.60	-	-	-	-	-
3	-	-	9.83	20.00	-	-	-	-	-
4	-	-	9.25	18.75	0805	7.23	2,200	16.6	3.75
5	-	-	-	17.60	-	-	-	-	-
			INSTRUMENT CALIBRATIONS =			4.01/7.00/10.00	-		
			DATE & TIME =			08/19/15	0600		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes: 2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in MW #4. Collected sample from MW #4 for BTEX only. Purged wells using 2 inch submersible electrical pump, new/clear vinyl tubing , and with brass adjustable flow valve attachment added near sampling end of tubing .

Top of casing MW # 1 ~ 2.13 ft., MW # 2 ~ 2.08 ft., MW # 3 ~ 1.88 ft., MW # 4 ~ 2.25 ft., MW # 5 ~ 2.08 ft. above grade.

on-site	**7:15 AM**	temp	**59 F**
off-site	**8:15 AM**	temp	**64 F**
sky cond.		**Sunny**	
wind speed	**0 - 10**	direct.	**ENE - ESE**

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : **BP AMERICA PROD. CO.**

CHAIN-OF-CUSTODY # : N / A

GCU # 215 - 95 BGT (Tank ID: A)
UNIT M, SEC. 16, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : December 2, 2015

Filename : GCU 215 mw log 2015-12-02.xls

DEVELOPER / SAMPLER : N J V

PROJECT MANAGER : J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	103.70	-	-	18.00	-	-	-	-	-
2	102.37	91.91	10.46	18.60	-	-	-	-	-
3	101.51	92.00	9.51	20.00	-	-	-	-	-
4	98.52	89.49	9.03	18.75	1055	7.08	2,300	14.7	4.50
5	99.23	87.48	11.75	17.60	1150	7.00	2,500	15.2	2.75

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	-
DATE & TIME =	12/02/15	0600

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes: 2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in MW #4 & #5. Collected sample from MW #4 & #5 for BTEX only. Purged wells using 2 inch submersible electrical pump, new/clear vinyl tubing , and with brass adjustable flow valve attachment added near sampling end of tubing .

Top of casing MW # 1 ~ 2.13 ft., MW # 2 ~ 2.08 ft., MW # 3 ~ 1.88 ft., MW # 4 ~ 2.25 ft., MW # 5 ~ 2.08 ft. above grade.

on-site	**10:00 AM**	temp	**27 F**
off-site	**12:00 PM**	temp	**34 F**
sky cond.		**Sunny**	
wind speed	**0 - 5**	direct.	**E**

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : **BP AMERICA PROD. CO.**

CHAIN-OF-CUSTODY # : N / A

GCU # 215 - 95 BGT (Tank ID: A)
UNIT M, SEC. 16, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : May 25, 2016

Filename : GCU 215 mw log 2016-05-25.xls

DEVELOPER / SAMPLER : N J V

PROJECT MANAGER : J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	103.70	-	-	18.00	-	-	-	-	-
2	102.37	92.12	10.25	18.60	-	-	-	-	-
3	101.51	92.20	9.31	20.00	-	-	-	-	-
4	98.52	91.72	6.80	18.75	1130	7.41	2,400	15.7	5.00
5	99.23	87.72	11.51	17.60	1045	7.25	2,300	15.2	3.00
				INSTRUMENT CALIBRATIONS =		4.01/7.00/10.00	-		
				DATE & TIME =		05/23/16	0600		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes: 2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in MW #4 & #5. Collected sample from MW #4 & #5 for BTEX only. Purged wells using 2 inch submersible electrical pump, new/clear vinyl tubing , and with brass adjustable flow valve attachment added near sampling end of tubing .

Top of casing MW # 1 ~ 2.13 ft., MW # 2 ~ 2.08 ft., MW # 3 ~ 1.88 ft., MW # 4 ~ 2.25 ft., MW # 5 ~ 2.08 ft. above grade.

on-site	**10:00 AM**	temp	**61 F**
off-site	**11:50 AM**	temp	**67 F**
sky cond.		**Sunny**	
wind speed	**0 - 10**	direct.	**SSE**

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : **BP AMERICA PROD. CO.**

CHAIN-OF-CUSTODY # : N / A

GCU # 215 - 95 BGT (Tank ID: A)
UNIT M, SEC. 16, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : August 18, 2016

Filename : GCU 215 mw log 2016-08-18.xls

DEVELOPER / SAMPLER : N J V

PROJECT MANAGER : J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	103.70	-	-	18.00	-	-	-	-	-
2	102.37	91.57	10.80	18.60	-	-	-	-	-
3	101.51	91.61	9.90	20.00	-	-	-	-	-
4	98.52	89.21	9.31	18.75	1120	7.25	2,200	18.7	7.75
5	99.23	87.19	12.04	17.60	1020	7.13	2,000	17.4	2.75
				INSTRUMENT CALIBRATIONS =		4.01/7.00/10.00	-		
				DATE & TIME =		08/18/16	0630		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes: 2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in MW #4 & #5. Collected sample from MW #4 & #5 for BTEX only. Purged wells using 2 inch submersible electrical pump, new/clear vinyl tubing , and with brass adjustable flow valve attachment added near sampling end of tubing .

Top of casing MW # 1 ~ 2.13 ft., MW # 2 ~ 2.08 ft., MW # 3 ~ 1.88 ft., MW # 4 ~ 2.25 ft., MW # 5 ~ 2.08 ft. above grade.

on-site	**11:00 AM**	temp	**70 F**
off-site	**1:00 PM**	temp	**78 F**
sky cond.	**Mostly cloudy**		
wind speed	**5 - 15**	direct.	**SE - W**

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : **BP AMERICA PROD. CO.**

CHAIN-OF-CUSTODY # : N / A

GCU # 215 - 95 BGT (Tank ID: A)
UNIT M, SEC. 16, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : December 6, 2016

Filename : GCU 215 mw log 2016-12-06.xls

DEVELOPER / SAMPLER : N J V

PROJECT MANAGER : J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	103.70	-	-	18.00	-	-	-	-	-
2	102.37	91.92	10.45	18.60	-	-	-	-	-
3	101.51	92.00	9.51	20.00	-	-	-	-	-
4	98.52	89.49	9.03	18.75	1225	-	2,300	15.4	4.75
5	99.23	87.43	11.80	17.60	1120	-	2,200	15.0	2.75
				INSTRUMENT CALIBRATIONS =		4.01/7.00/10.00	-		
				DATE & TIME =		12/06/16	0600		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes: 2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in MW #4 & #5. Collected sample from MW #4 & #5 for BTEX only. Purged wells using 2 inch submersible electrical pump, new/clear vinyl tubing , and with brass adjustable flow valve attachment added near sampling end of tubing .

Top of casing MW # 1 ~ 2.13 ft., MW # 2 ~ 2.08 ft., MW # 3 ~ 1.88 ft., MW # 4 ~ 2.25 ft., MW # 5 ~ 2.08 ft. above grade.

on-site	**10:30 AM**	temp	**36 F**
off-site	**12:30 PM**	temp	**42 F**
sky cond.	**Mostly cloudy**		
wind speed	**0 - 10**	direct.	**ENE - E**

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : **BP AMERICA PROD. CO.**

CHAIN-OF-CUSTODY # : N / A

GCU # 215 - 95 BGT (Tank ID: A)
UNIT M, SEC. 16, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : February 23, 2017

Filename : GCU 215 mw log 2017-02-23.xls

DEVELOPER / SAMPLER : N J V

PROJECT MANAGER : J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	103.70	-	-	18.00	-	-	-	-	-
2	102.37	92.19	10.18	18.60	-	-	-	-	-
3	101.51	92.26	9.25	20.00	-	-	-	-	-
4	98.52	89.79	8.73	18.75	1335	7.43	2,400	12.3	5.00
5	99.23	87.73	11.50	17.60	1240	7.28	2,300	12.5	3.00
				INSTRUMENT CALIBRATIONS =		4.01/7.00/10.00	-		
				DATE & TIME =		02/23/17	0600		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes: 2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in MW #4 & #5. Collected sample from MW #4 & #5 for BTEX only. Purged wells using 2 inch submersible electrical pump, new/clear vinyl tubing , and with brass adjustable flow valve attachment added near sampling end of tubing .

Top of casing MW # 1 ~ 2.13 ft., MW # 2 ~ 2.08 ft., MW # 3 ~ 1.88 ft., MW # 4 ~ 2.25 ft., MW # 5 ~ 2.08 ft. above grade.

on-site	**11:45 AM**	temp	**39 F**
off-site	**1:45 PM**	temp	**42 F**
sky cond.	**Mostly cloudy**		
wind speed	**15 - 25**	direct.	**West**

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : **BP AMERICA PROD. CO.**

CHAIN-OF-CUSTODY # : N / A

GCU # 215 - 95 BGT (Tank ID: A)
UNIT M, SEC. 16, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : June 27, 2017

Filename : GCU 215 mw log 2017-06-27.xls

DEVELOPER / SAMPLER : N J V

PROJECT MANAGER : J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	103.70	-	-	18.00	-	-	-	-	-
2	102.37	-	-	18.60	-	-	-	-	-
3	101.51	-	-	20.00	-	-	-	-	-
4	98.52	-	-	18.75	-	-	-	-	-
5	99.23		12.51	17.60	1120	7.24	2,400	16.3	2.50
					INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	-		
					DATE & TIME =	06/27/17	0600		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes: 2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in MW #5. Collected sample from MW #5 for BTEX only. Purged wells using 2 inch submersible electrical pump, new/clear vinyl tubing , and with brass adjustable flow valve attachment added near sampling end of tubing .

Top of casing MW # 1 ~ 2.13 ft., MW # 2 ~ 2.08 ft., MW # 3 ~ 1.88 ft., MW # 4 ~ 2.25 ft., MW # 5 ~ 2.08 ft. above grade.

on-site	**10:23 AM**	temp	**78 F**
off-site	**11:30 AM**	temp	**83 F**
sky cond.		**Sunny**	
wind speed	**0 - 5**	direct.	**ESE**

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : **BP AMERICA PROD. CO.**

CHAIN-OF-CUSTODY # : N / A

GCU # 215 - 95 BGT (Tank ID: A)
UNIT M, SEC. 16, T29N, R12W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : September 26, 2017

Filename : GCU 215 mw log 2017-09-26.xls

DEVELOPER / SAMPLER : N J V

PROJECT MANAGER : J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	103.70	92.27	11.43	18.00	1310	7.19	2,900	18.4	3.50
2	102.37	91.38	10.99	18.60	1700	6.90	2,500	18.9	3.75
3	101.51	91.41	10.10	20.00	1605	6.97	1,900	17.9	4.75
4	98.52	89.03	9.49	18.75	1510	7.29	2,300	18.9	4.50
5	99.23	87.02	12.21	17.60	1415	7.03	2,100	18.8	2.75
					INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	-		
					DATE & TIME =	09/26/17	0700		

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes: 2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in all MWs. Collected sample from all MWs for BTEX & general chemistry. Purged wells using 2 inch submersible electrical pump, new/clear vinyl tubing, and with brass adjustable flow valve attachment added near sampling end of tubing

Top of casing MW # 1 ~ 2.13 ft., MW # 2 ~ 2.08 ft., MW # 3 ~ 1.88 ft., MW # 4 ~ 2.25 ft., MW # 5 ~ 2.08 ft. above grade.

on-site	**12:15 PM**	temp	**66 F**
off-site	**5:15 PM**	temp	**73 F**
sky cond.	**Mostly cloudy**		
wind speed	**0 - 10**	direct.	**E-SW-NW**

MONITOR WELL LABORATORY RESULTS

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW# 2
Project: GCU #215
Collection Date: 1/28/2015 2:15:00 PM
Lab ID: 1501A34-001
Matrix: AQUEOUS
Received Date: 1/29/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	1.0		µg/L	1	1/29/2015 5:12:32 PM	R23989
Toluene	ND	1.0		µg/L	1	1/29/2015 5:12:32 PM	R23989
Ethylbenzene	7.9	1.0		µg/L	1	1/29/2015 5:12:32 PM	R23989
Xylenes, Total	2.8	2.0		µg/L	1	1/29/2015 5:12:32 PM	R23989
Surr: 4-Bromofluorobenzene	120	66.6-167		%REC	1	1/29/2015 5:12:32 PM	R23989
EPA METHOD 300.0: ANIONS						Analyst:	**LGT**
Fluoride	1.5	0.50		mg/L	5	1/29/2015 6:29:35 PM	R23999
Chloride	120	10		mg/L	20	1/29/2015 6:41:59 PM	R23999
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	1/29/2015 6:29:35 PM	R23999
Sulfate	1400	25		mg/L	50	2/2/2015 11:21:03 PM	R24057
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst:	**KS**
Total Dissolved Solids	2950	40.0	*	mg/L	1	1/30/2015 5:17:00 PM	17468

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #3
Project: GCU #215
Collection Date: 1/28/2015 12:45:00 PM
Lab ID: 1501A34-002
Matrix: AQUEOUS
Received Date: 1/29/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	1/29/2015 6:07:09 PM	R23989
Toluene	ND	1.0		µg/L	1	1/29/2015 6:07:09 PM	R23989
Ethylbenzene	ND	1.0		µg/L	1	1/29/2015 6:07:09 PM	R23989
Xylenes, Total	ND	2.0		µg/L	1	1/29/2015 6:07:09 PM	R23989
Surr: 4-Bromofluorobenzene	109	66.6-167		%REC	1	1/29/2015 6:07:09 PM	R23989
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Fluoride	1.3	0.10		mg/L	1	1/29/2015 6:54:24 PM	R23999
Chloride	65	10		mg/L	20	1/29/2015 7:06:48 PM	R23999
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	1/29/2015 6:54:24 PM	R23999
Sulfate	1000	25		mg/L	50	2/2/2015 11:33:28 PM	R24057
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	1990	40.0	*	mg/L	1	1/30/2015 5:17:00 PM	17468

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW# 4
Project: GCU #215
Collection Date: 1/28/2015 11:10:00 AM
Lab ID: 1501A34-003
Matrix: AQUEOUS
Received Date: 1/29/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	13	1.0		µg/L	1	1/29/2015 6:34:26 PM	R23989
Toluene	ND	1.0		µg/L	1	1/29/2015 6:34:26 PM	R23989
Ethylbenzene	23	1.0		µg/L	1	1/29/2015 6:34:26 PM	R23989
Xylenes, Total	10	2.0		µg/L	1	1/29/2015 6:34:26 PM	R23989
Surr: 4-Bromofluorobenzene	122	66.6-167		%REC	1	1/29/2015 6:34:26 PM	R23989
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Fluoride	2.0	0.50		mg/L	5	1/29/2015 7:19:12 PM	R23999
Chloride	61	2.5		mg/L	5	1/29/2015 7:19:12 PM	R23999
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	1/29/2015 7:19:12 PM	R23999
Sulfate	640	10		mg/L	20	1/29/2015 7:31:36 PM	R23999
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	1760	100	*	mg/L	1	1/30/2015 5:17:00 PM	17468

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

Qualifiers:

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

Analytical Report
Lab Order **1502624**
Date Reported: **2/23/2015**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #5
Project: GCU #215
Collection Date: 2/12/2015 12:45:00 PM
Lab ID: 1502624-001
Matrix: AQUEOUS
Received Date: 2/13/2015 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	3.1	1.0		µg/L	1	2/16/2015 11:21:11 AM	R24332
Toluene	ND	1.0		µg/L	1	2/16/2015 11:21:11 AM	R24332
Ethylbenzene	4.0	1.0		µg/L	1	2/16/2015 11:21:11 AM	R24332
Xylenes, Total	ND	2.0		µg/L	1	2/16/2015 11:21:11 AM	R24332
Surr: 4-Bromofluorobenzene	102	66.6-167		%REC	1	2/16/2015 11:21:11 AM	R24332
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Fluoride	3.5	0.10		mg/L	1	2/14/2015 2:49:08 AM	R24319
Chloride	87	10		mg/L	20	2/14/2015 3:01:32 AM	R24319
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	2/14/2015 2:49:08 AM	R24319
Sulfate	650	10		mg/L	20	2/14/2015 3:01:32 AM	R24319
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	1860	20.0	*	mg/L	1	2/19/2015 10:52:00 AM	17789

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: LP AGT Produced Water
Project: GCU #215
Collection Date: 2/12/2015 11:50:00 AM
Lab ID: 1502624-002
Matrix: AQUEOUS
Received Date: 2/13/2015 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Fluoride	4.8	0.50	*	mg/L	5	2/14/2015 3:13:56 AM	R24319
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	2/14/2015 3:13:56 AM	R24319
Sulfate	ND	2.5		mg/L	5	2/14/2015 3:13:56 AM	R24319
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	11800	200	*	mg/L	1	2/19/2015 10:52:00 AM	17789

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1505941**
Date Reported: **5/29/2015**

CLIENT: Blagg Engineering
Client Sample ID: MW #1
Project: GCU #215
Collection Date: 5/20/2015 8:25:00 AM
Lab ID: 1505941-001
Matrix: AQUEOUS
Received Date: 5/21/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Fluoride	1.9	0.50		mg/L	5	5/22/2015 2:38:01 PM	R26388
Chloride	61	2.5		mg/L	5	5/22/2015 2:38:01 PM	R26388
Nitrogen, Nitrate (As N)	ND	0.50	H	mg/L	5	5/22/2015 2:38:01 PM	R26388
Sulfate	960	10		mg/L	20	5/22/2015 2:50:26 PM	R26388
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	1760	20.0	*	mg/L	1	5/27/2015 5:35:00 PM	19387
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	5/26/2015 3:39:03 PM	R26413
Toluene	ND	1.0		µg/L	1	5/26/2015 3:39:03 PM	R26413
Ethylbenzene	ND	1.0		µg/L	1	5/26/2015 3:39:03 PM	R26413
Xylenes, Total	ND	2.0		µg/L	1	5/26/2015 3:39:03 PM	R26413
Surr: 4-Bromofluorobenzene	93.7	80-120		%REC	1	5/26/2015 3:39:03 PM	R26413

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #4
Project: GCU #215
Collection Date: 5/20/2015 9:20:00 AM
Lab ID: 1505941-002
Matrix: AQUEOUS
Received Date: 5/21/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	6.1	1.0		µg/L	1	5/26/2015 6:35:56 PM	R26413
Toluene	ND	1.0		µg/L	1	5/26/2015 6:35:56 PM	R26413
Ethylbenzene	26	1.0		µg/L	1	5/26/2015 6:35:56 PM	R26413
Xylenes, Total	3.0	2.0		µg/L	1	5/26/2015 6:35:56 PM	R26413
Surr: 4-Bromofluorobenzene	114	80-120		%REC	1	5/26/2015 6:35:56 PM	R26413

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

Qualifiers:

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

Analytical Report
Lab Order **1512204**
Date Reported: **12/10/2015**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #4
Project: GCU #215
Collection Date: 12/2/2015 10:55:00 AM
Lab ID: 1512204-001
Matrix: AQUEOUS
Received Date: 12/4/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	12/10/2015 1:41:33 AM	B30727
Toluene	ND	1.0		µg/L	1	12/10/2015 1:41:33 AM	B30727
Ethylbenzene	ND	1.0		µg/L	1	12/10/2015 1:41:33 AM	B30727
Xylenes, Total	ND	2.0		µg/L	1	12/10/2015 1:41:33 AM	B30727
Surr: 4-Bromofluorobenzene	123	65-127		%REC	1	12/10/2015 1:41:33 AM	B30727

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #5
Project: GCU #215
Collection Date: 12/2/2015 11:50:00 AM
Lab ID: 1512204-002
Matrix: AQUEOUS
Received Date: 12/4/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	12/10/2015 2:05:58 AM	B30727
Toluene	ND	1.0		µg/L	1	12/10/2015 2:05:58 AM	B30727
Ethylbenzene	1.3	1.0		µg/L	1	12/10/2015 2:05:58 AM	B30727
Xylenes, Total	ND	2.0		µg/L	1	12/10/2015 2:05:58 AM	B30727
Surr: 4-Bromofluorobenzene	120	65-127		%REC	1	12/10/2015 2:05:58 AM	B30727

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1602A67**
Date Reported: **3/1/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #4
Project: GCU #215
Collection Date: 2/23/2016 11:00:00 AM
Lab ID: 1602A67-001
Matrix: AQUEOUS
Received Date: 2/25/2016 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	2/26/2016 12:10:58 PM	R32443
Toluene	ND	1.0		µg/L	1	2/26/2016 12:10:58 PM	R32443
Ethylbenzene	1.1	1.0		µg/L	1	2/26/2016 12:10:58 PM	R32443
Xylenes, Total	2.3	2.0		µg/L	1	2/26/2016 12:10:58 PM	R32443
Surr: 4-Bromofluorobenzene	119	65-127		%Rec	1	2/26/2016 12:10:58 PM	R32443

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #5
Project: GCU #215
Collection Date: 2/23/2016 12:00:00 PM
Lab ID: 1602A67-002
Matrix: AQUEOUS
Received Date: 2/25/2016 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	2/26/2016 12:35:47 PM	R32443
Toluene	ND	1.0		µg/L	1	2/26/2016 12:35:47 PM	R32443
Ethylbenzene	ND	1.0		µg/L	1	2/26/2016 12:35:47 PM	R32443
Xylenes, Total	ND	2.0		µg/L	1	2/26/2016 12:35:47 PM	R32443
Surr: 4-Bromofluorobenzene	107	65-127		%Rec	1	2/26/2016 12:35:47 PM	R32443

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

Qualifiers:

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

Analytical Report
Lab Order **1605B98**
Date Reported: **6/1/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 4
Project: GCU 215
Collection Date: 5/25/2016 11:30:00 AM
Lab ID: 1605B98-001
Matrix: AQUEOUS
Received Date: 5/26/2016 7:54:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	5/27/2016 10:08:31 AM	A34548
Toluene	ND	1.0		µg/L	1	5/27/2016 10:08:31 AM	A34548
Ethylbenzene	ND	1.0		µg/L	1	5/27/2016 10:08:31 AM	A34548
Xylenes, Total	ND	2.0		µg/L	1	5/27/2016 10:08:31 AM	A34548
Surr: 4-Bromofluorobenzene	120	87.9-146		%Rec	1	5/27/2016 10:08:31 AM	A34548

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 5
Project: GCU 215
Collection Date: 5/25/2016 10:45:00 AM
Lab ID: 1605B98-002
Matrix: AQUEOUS
Received Date: 5/26/2016 7:54:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	5/27/2016 10:32:09 AM	A34548
Toluene	ND	1.0		µg/L	1	5/27/2016 10:32:09 AM	A34548
Ethylbenzene	ND	1.0		µg/L	1	5/27/2016 10:32:09 AM	A34548
Xylenes, Total	ND	2.0		µg/L	1	5/27/2016 10:32:09 AM	A34548
Surr: 4-Bromofluorobenzene	115	87.9-146		%Rec	1	5/27/2016 10:32:09 AM	A34548

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

Qualifiers:

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

Analytical Report
Lab Order **1608C15**
Date Reported: **8/25/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 4
Project: GCU 215
Collection Date: 8/18/2016 12:55:00 PM
Lab ID: 1608C15-001
Matrix: AQUEOUS
Received Date: 8/20/2016 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	8/24/2016 5:12:00 PM	B36734
Toluene	ND	1.0		µg/L	1	8/24/2016 5:12:00 PM	B36734
Ethylbenzene	ND	1.0		µg/L	1	8/24/2016 5:12:00 PM	B36734
Xylenes, Total	ND	2.0		µg/L	1	8/24/2016 5:12:00 PM	B36734
Surr: 4-Bromofluorobenzene	98.9	87.9-146		%Rec	1	8/24/2016 5:12:00 PM	B36734

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 5
Project: GCU 215
Collection Date: 8/18/2016 11:55:00 AM
Lab ID: 1608C15-002
Matrix: AQUEOUS
Received Date: 8/20/2016 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	2.0	D	µg/L	2	8/24/2016 5:36:28 PM	B36734
Toluene	ND	2.0	D	µg/L	2	8/24/2016 5:36:28 PM	B36734
Ethylbenzene	ND	2.0	D	µg/L	2	8/24/2016 5:36:28 PM	B36734
Xylenes, Total	ND	4.0	D	µg/L	2	8/24/2016 5:36:28 PM	B36734
Surr: 4-Bromofluorobenzene	89.2	87.9-146	D	%Rec	2	8/24/2016 5:36:28 PM	B36734

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

Qualifiers:

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

Analytical Report
Lab Order **1612461**
Date Reported: **12/12/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #4
Project: GCU 215
Collection Date: 12/6/2016 12:25:00 PM
Lab ID: 1612461-001
Matrix: AQUEOUS
Received Date: 12/8/2016 8:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	12/9/2016 1:20:08 PM	B39284
Toluene	ND	1.0		µg/L	1	12/9/2016 1:20:08 PM	B39284
Ethylbenzene	ND	1.0		µg/L	1	12/9/2016 1:20:08 PM	B39284
Xylenes, Total	ND	2.0		µg/L	1	12/9/2016 1:20:08 PM	B39284
Surr: 4-Bromofluorobenzene	96.2	80-120		%Rec	1	12/9/2016 1:20:08 PM	B39284

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #5
Project: GCU 215
Collection Date: 12/6/2016 11:20:00 AM
Lab ID: 1612461-002
Matrix: AQUEOUS
Received Date: 12/8/2016 8:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	12/9/2016 1:44:32 PM	B39284
Toluene	ND	1.0		µg/L	1	12/9/2016 1:44:32 PM	B39284
Ethylbenzene	ND	1.0		µg/L	1	12/9/2016 1:44:32 PM	B39284
Xylenes, Total	ND	2.0		µg/L	1	12/9/2016 1:44:32 PM	B39284
Surr: 4-Bromofluorobenzene	89.3	80-120		%Rec	1	12/9/2016 1:44:32 PM	B39284

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1702A94**
Date Reported: **3/3/2017**

CLIENT: Blagg Engineering
Client Sample ID: MW #4
Project: GCU 215
Collection Date: 2/23/2017 1:35:00 PM
Lab ID: 1702A94-001
Matrix: AQUEOUS
Received Date: 2/24/2017 8:08:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	1.0		µg/L	1	3/1/2017 4:20:10 PM	B41093
Toluene	ND	1.0		µg/L	1	3/1/2017 4:20:10 PM	B41093
Ethylbenzene	ND	1.0		µg/L	1	3/1/2017 4:20:10 PM	B41093
Xylenes, Total	ND	1.5		µg/L	1	3/1/2017 4:20:10 PM	B41093
Surr: 1,2-Dichloroethane-d4	109	70-130		%Rec	1	3/1/2017 4:20:10 PM	B41093
Surr: 4-Bromofluorobenzene	91.4	70-130		%Rec	1	3/1/2017 4:20:10 PM	B41093
Surr: Dibromofluoromethane	103	70-130		%Rec	1	3/1/2017 4:20:10 PM	B41093
Surr: Toluene-d8	99.0	70-130		%Rec	1	3/1/2017 4:20:10 PM	B41093

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #5
Project: GCU 215
Collection Date: 2/23/2017 12:40:00 PM
Lab ID: 1702A94-002
Matrix: AQUEOUS
Received Date: 2/24/2017 8:08:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	1.0		µg/L	1	3/1/2017 4:49:07 PM	B41093
Toluene	ND	1.0		µg/L	1	3/1/2017 4:49:07 PM	B41093
Ethylbenzene	ND	1.0		µg/L	1	3/1/2017 4:49:07 PM	B41093
Xylenes, Total	ND	1.5		µg/L	1	3/1/2017 4:49:07 PM	B41093
Surr: 1,2-Dichloroethane-d4	111	70-130		%Rec	1	3/1/2017 4:49:07 PM	B41093
Surr: 4-Bromofluorobenzene	90.8	70-130		%Rec	1	3/1/2017 4:49:07 PM	B41093
Surr: Dibromofluoromethane	103	70-130		%Rec	1	3/1/2017 4:49:07 PM	B41093
Surr: Toluene-d8	99.4	70-130		%Rec	1	3/1/2017 4:49:07 PM	B41093

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

Qualifiers:

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

Analytical Report
Lab Order **1706F13**
Date Reported: **7/3/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 5
Project: GCU 215
Collection Date: 6/27/2017 11:20:00 AM
Lab ID: 1706F13-001
Matrix: AQUEOUS
Received Date: 6/28/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **AG**	
Benzene	ND	1.0		µg/L	1	6/30/2017 5:28:45 PM	B43928
Toluene	ND	1.0		µg/L	1	6/30/2017 5:28:45 PM	B43928
Ethylbenzene	ND	1.0		µg/L	1	6/30/2017 5:28:45 PM	B43928
Xylenes, Total	5.3	1.5		µg/L	1	6/30/2017 5:28:45 PM	B43928
Surr: 1,2-Dichloroethane-d4	107	70-130		%Rec	1	6/30/2017 5:28:45 PM	B43928
Surr: 4-Bromofluorobenzene	98.7	70-130		%Rec	1	6/30/2017 5:28:45 PM	B43928
Surr: Dibromofluoromethane	104	70-130		%Rec	1	6/30/2017 5:28:45 PM	B43928
Surr: Toluene-d8	100	70-130		%Rec	1	6/30/2017 5:28:45 PM	B43928

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #1
Project: GCU 215
Collection Date: 9/26/2017 1:10:00 PM
Lab ID: 1709G44-001
Matrix: AQUEOUS
Received Date: 9/28/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Fluoride	2.5	0.50		mg/L	5	10/3/2017 3:08:44 PM	R46083
Chloride	83	2.5		mg/L	5	10/3/2017 3:08:44 PM	R46083
Nitrogen, Nitrite (As N)	ND	0.50	H	mg/L	5	10/3/2017 3:08:44 PM	R46083
Nitrogen, Nitrate (As N)	ND	0.50	H	mg/L	5	10/3/2017 3:08:44 PM	R46083
Sulfate	1300	25		mg/L	50	10/5/2017 2:22:36 AM	R46093
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	3090	200	*D	mg/L	1	10/3/2017 12:42:00 PM	34165
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	2.0	D	µg/L	2	10/2/2017 10:09:41 AM	B46025
Toluene	ND	2.0	D	µg/L	2	10/2/2017 10:09:41 AM	B46025
Ethylbenzene	ND	2.0	D	µg/L	2	10/2/2017 10:09:41 AM	B46025
Xylenes, Total	ND	4.0	D	µg/L	2	10/2/2017 10:09:41 AM	B46025
Surr: 4-Bromofluorobenzene	118	72.5-140	D	%Rec	2	10/2/2017 10:09:41 AM	B46025

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #2
Project: GCU 215
Collection Date: 9/26/2017 5:00:00 PM
Lab ID: 1709G44-002
Matrix: AQUEOUS
Received Date: 9/28/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Fluoride	0.86	0.10		mg/L	1	10/3/2017 3:33:33 PM	R46083
Chloride	85	10		mg/L	20	10/3/2017 3:45:58 PM	R46083
Nitrogen, Nitrite (As N)	ND	0.10	H	mg/L	1	10/3/2017 3:33:33 PM	R46083
Nitrogen, Nitrate (As N)	ND	0.10	H	mg/L	1	10/3/2017 3:33:33 PM	R46083
Sulfate	1400	25		mg/L	50	10/5/2017 2:35:01 AM	R46093
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	3100	200	*D	mg/L	1	10/3/2017 12:42:00 PM	34165
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	10/2/2017 10:33:20 AM	B46025
Toluene	ND	1.0		µg/L	1	10/2/2017 10:33:20 AM	B46025
Ethylbenzene	ND	1.0		µg/L	1	10/2/2017 10:33:20 AM	B46025
Xylenes, Total	ND	2.0		µg/L	1	10/2/2017 10:33:20 AM	B46025
Surr: 4-Bromofluorobenzene	116	72.5-140		%Rec	1	10/2/2017 10:33:20 AM	B46025

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #3
Project: GCU 215
Collection Date: 9/26/2017 4:05:00 PM
Lab ID: 1709G44-003
Matrix: AQUEOUS
Received Date: 9/28/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Fluoride	0.84	0.10		mg/L	1	10/3/2017 4:23:11 PM	R46083
Chloride	62	10		mg/L	20	10/3/2017 4:35:35 PM	R46083
Nitrogen, Nitrite (As N)	ND	0.10	H	mg/L	1	10/3/2017 4:23:11 PM	R46083
Nitrogen, Nitrate (As N)	ND	0.10	H	mg/L	1	10/3/2017 4:23:11 PM	R46083
Sulfate	860	25		mg/L	50	10/5/2017 2:47:25 AM	R46093
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	1820	40.0	*D	mg/L	1	10/3/2017 12:42:00 PM	34165
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	10/2/2017 11:20:34 AM	B46025
Toluene	ND	1.0		µg/L	1	10/2/2017 11:20:34 AM	B46025
Ethylbenzene	1.5	1.0		µg/L	1	10/2/2017 11:20:34 AM	B46025
Xylenes, Total	ND	2.0		µg/L	1	10/2/2017 11:20:34 AM	B46025
Surr: 4-Bromofluorobenzene	120	72.5-140		%Rec	1	10/2/2017 11:20:34 AM	B46025

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #4
Project: GCU 215
Collection Date: 9/26/2017 3:10:00 PM
Lab ID: 1709G44-004
Matrix: AQUEOUS
Received Date: 9/28/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Fluoride	1.3	0.10		mg/L	1	10/3/2017 4:47:59 PM	R46083
Chloride	64	10		mg/L	20	10/3/2017 5:00:23 PM	R46083
Nitrogen, Nitrite (As N)	ND	0.10	H	mg/L	1	10/3/2017 4:47:59 PM	R46083
Nitrogen, Nitrate (As N)	ND	0.10	H	mg/L	1	10/3/2017 4:47:59 PM	R46083
Sulfate	960	10		mg/L	20	10/3/2017 5:00:23 PM	R46083
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	2010	40.0	*D	mg/L	1	10/3/2017 12:42:00 PM	34165
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	10/2/2017 11:44:13 AM	B46025
Toluene	ND	1.0		µg/L	1	10/2/2017 11:44:13 AM	B46025
Ethylbenzene	ND	1.0		µg/L	1	10/2/2017 11:44:13 AM	B46025
Xylenes, Total	ND	2.0		µg/L	1	10/2/2017 11:44:13 AM	B46025
Surr: 4-Bromofluorobenzene	117	72.5-140		%Rec	1	10/2/2017 11:44:13 AM	B46025

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW #5
Project: GCU 215
Collection Date: 9/26/2017 2:15:00 PM
Lab ID: 1709G44-005
Matrix: AQUEOUS
Received Date: 9/28/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Fluoride	2.1	0.50		mg/L	5	10/3/2017 5:12:48 PM	R46083
Chloride	84	2.5		mg/L	5	10/3/2017 5:12:48 PM	R46083
Nitrogen, Nitrite (As N)	ND	0.50	H	mg/L	5	10/3/2017 5:12:48 PM	R46083
Nitrogen, Nitrate (As N)	ND	0.50	H	mg/L	5	10/3/2017 5:12:48 PM	R46083
Sulfate	880	10		mg/L	20	10/3/2017 5:25:13 PM	R46083
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	1980	100	*D	mg/L	1	10/3/2017 12:42:00 PM	34165
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	2.0	D	µg/L	2	10/2/2017 12:07:54 PM	B46025
Toluene	ND	2.0	D	µg/L	2	10/2/2017 12:07:54 PM	B46025
Ethylbenzene	ND	2.0	D	µg/L	2	10/2/2017 12:07:54 PM	B46025
Xylenes, Total	ND	4.0	D	µg/L	2	10/2/2017 12:07:54 PM	B46025
Surr: 4-Bromofluorobenzene	121	72.5-140	D	%Rec	2	10/2/2017 12:07:54 PM	B46025

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

Qualifiers:

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

MONITOR WELL

LABORATORY

CHAIN-OF-CUSTODY

RECORDS

Chain-of-Custody Record

Client: BLAGG ENGR. / BP AMERICA

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

Phone #: (505) 632-1199

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: GCU # 215

Project #:

Project Manager: NELSON VELEZ

Sampler: NELSON VELEZ

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.0

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1501434	BTEX + ~~MTBE~~ + TMB's (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Cation / Anion Balance		Grab sample	5 pt. composite sample	Air Bubbles (Y or N)
1/28/15	1415	WATER	MW # 2	40 ml VOA - 2	HCl & Cool	-001	✓													✓		
1/28/15	1415	WATER	MW # 2	500 ml - 1	Cool													✓		✓		
1/28/15	1245	WATER	MW # 3	40 ml VOA - 2	HCl & Cool	-002	✓													✓		
1/28/15	1245	WATER	MW # 3	500 ml - 1	Cool													✓		✓		
1/28/15	1110	WATER	MW # 4	40 ml VOA - 2	HCl & Cool	-003	✓													✓		
1/28/15	1110	WATER	MW # 4	500 ml - 1	Cool													✓		✓		

Date	Time	Relinquished by	Received by	Date	Time
1/28/15	1528			1/28/15	1528
1/28/15	1810			01/29/15	

Remarks: **Report F, Cl, NO_3, SO_4, & TDS only for A/C balance.**

BILL DIRECTLY TO BP:

Jeff Peace, 200 Energy Court, Farmington, NM 87401

Paykey: **ZEVH01REME**

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.

Chain-of-Custody Record

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

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

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

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name:
GCU # 215

Project #:

Project Manager:
NELSON VELEZ

Sampler: **NELSON VELEZ**

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.2

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1502624	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	Total Dissolved Solids	8260B (VOA)	8270 (Semi-VOA)	Cation / Anion Balance		Grab sample	5 pt. composite sample	Air Bubbles (Y or N)
2/12/15	1245	WATER	MW # 5	40 ml VOA - 2	HCl & Cool	-001	√													√		
2/12/15	1245	WATER	MW # 5	500 ml - 1	Cool	-1												√		√		
2/12/15	1156	WATER	LP AGT PRODUCED WATER	500 ml - 1	Cool	-002								√	√					√		

Date	Time	Relinquished by:	Received by:	Date	Time
2/12/15	1717		Christine Walters	2/12/15	1717
2/12/15	1810			2/13/15	0715

Remarks: **Report F, Cl, NO_3, SO_4, & TDS only for A/C balance.**

BILL DIRECTLY TO BP:
Jeff Peace, 200 Energy Court, Farmington, NM 87401
Paykey: **ZEVH01REME**

Chain-of-Custody Record

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

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

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

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name:
GCU # 215

Project #:

Project Manager:
NELSON VELEZ

Sampler: **NELSON VELEZ** NV

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1505941	BTEX ~~+ MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	Total Dissolved Solids	8260B (VOA)	8270 (Semi-VOA)	Anions / Cations Balance		Grab sample	5 pt. composite sample	Air Bubbles (Y or N)
5/20/15	0825	WATER	MW # 1	40 ml VOA - 2	HCl & Cool	-001	✓													✓		
5/20/15	0825	WATER	MW # 1	500 ml - 1	Cool	-001									✓			✓		✓		
5/20/15	0920	WATER	MW # 4	40 ml VOA - 2	HCl & Cool	-002	✓													✓		

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/20/15	1910		Christy Waste	5/20/15	1910
5/20/15	2000	Christy Waste		05/21/15	0700

Remarks: **Report F, Cl, NO_3, SO_4, & TDS only for A/C balance.**

BILL DIRECTLY TO BP:
Jeff Peace, 200 Energy Court, Farmington, NM 87401
Paykey: **ZEVH01REME**

Chain-of-Custody Record

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

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

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

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name:
GCU # 215

Project #:

Project Manager:
NELSON VELEZ

Sampler: **NELSON VELEZ**

On Ice: ☑ Yes ☐ No

Sample Temperature: 2.1

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1508C68	Analysis Request: BTEX + ~~MTBE + TMBs~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	Total Dissolved Solids	8260B (VOA)	8270 (Semi-VOA)	Anions / Cations Balance		Grab sample	5 pt. composite sample
8/24/15	0805	WATER	MW # 4	40 ml VOA - 2	HCl & Cool	-001	✓													✓	

Date: 8/25/15 Time: 1710 Relinquished by: [signature] Received by: [signature] Date: 8/25/15 Time: 1710

Date: 8/25/15 Time: 1851 Relinquished by: [signature] Received by: [signature] Date: 08/26/15 Time: AM

Remarks:

BILL DIRECTLY TO BP:

Jeff Peace, 200 Energy Court, Farmington, NM 87401

Paykey: **ZEVH01REME**

Chain-of-Custody Record

Client: BLAGG ENGR. / BP AMERICA

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

Phone #: (505) 632-1199

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: GCU # 215

Project #:

Project Manager: NELSON VELEZ

Sampler: NELSON VELEZ NV

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.3

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1512204	BTEX + MTBE + TMB's (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	Total Dissolved Solids	8260B (VOA)	8270 (Semi-VOA)	Anions / Cations Balance		Grab sample	5 pt. composite sample	Air Bubbles (Y or N)
12/2/15	1055	WATER	MW # 4	40 ml VOA - 2	HCl & Cool	-001	√													√		
12/2/15	1150	WATER	MW # 5	40 ml VOA - 2	HCl & Cool	-002	√													√		

Analysis Request

Date	Time	Relinquished by:	Received by	Date	Time
12/3/15	1732			12/3/15	1732
12/3/15	1741			12/04/15	0800

Remarks:
BILL DIRECTLY TO BP:
200 Energy Court, Farmington, NM 87401 Attn.: S. Moskal
VID: **VHIXONEVRM**

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.

Chain-of-Custody Record

Client: BLAGG ENGR. / BP AMERICA

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

Phone #: (505) 632-1199

Email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: GCU # 215

Project #:

Project Manager: NELSON VELEZ

Sampler: NELSON VELEZ NV

On Ice: ☑ Yes ☐ No

Sample Temperature: 1, 2

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1602A67	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	Total Dissolved Solids	8260B (VOA)	8270 (Semi-VOA)	Anions / Cations Balance		Grab sample	5 pt. composite sample	Air Bubbles (Y or N)
2/23/16	1100	WATER	MW # 4	40 ml VOA - 2	HCl & Cool	001	✓													✓		
2/23/16	1200	WATER	MW # 5	40 ml VOA - 2	HCl & Cool	002	✓													✓		

Date: 2/24/16 Time: 1609 Relinquished by: [signature]
Received by: Christine Walters Date: 2/24/16 Time: 1609

Date: 2/24/16 Time: 1814 Relinquished by: Christine Walters
Received by: [signature] Date: 02/25/16 Time: 0720

Remarks:

BILL DIRECTLY TO BP:
200 Energy Court, Farmington, NM 87401 Attn.: John Ritchie

VID: VRITCJWFEC

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.

Chain-of-Custody Record

Client: BLAGG ENGR. / BP AMERICA

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

Phone #: (505) 632-1199

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: GCU # 215

Project #:

Project Manager: NELSON VELEZ

Sampler: NELSON VELEZ NV

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.5

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	Total Dissolved Solids	8260B (VOA)	8270 (Semi-VOA)	Anions / Cations Balance		Grab sample	5 pt. composite sample	Air Bubbles (Y or N)
5/25/16	1130	WATER	MW # 4	40 ml VOA - 2	HCl & Cool	1605B98 -001	√													√		
5/25/16	1045	WATER	MW # 5	40 ml VOA - 2	HCl & Cool	-002	√													√		

Date	Time	Relinquished by:	Received by:	Date	Time
5/25/16	1810		Christine Walters	5/25/16	1810
5/25/16	2030	Christine Walters		05/26/16	0741

Remarks:

BILL DIRECTLY TO BP:
200 Energy Court, Farmington, NM 87401 Attn.: John Ritchie

VID: VDRINKJWA1

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

Chain-of-Custody Record

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

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

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

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name:
GCU # 215

Project #:

Project Manager:
NELSON VELEZ

Sampler: **NELSON VELEZ** NV

On Ice: ☑ Yes ☐ No

Sample Temperature: 3.8

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Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1608015	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	Total Dissolved Solids	8260B (VOA)	8270 (Semi-VOA)	Anions / Cations Balance		Grab sample	5 pt. composite sample	Air Bubbles (Y or N)
8/18/16	1255	WATER	MW # 4	40 ml VOA - 2	HCl & Cool	-001	✓													✓		
8/18/16	1155	WATER	MW # 5	40 ml VOA - 2	HCl & Cool	-002	✓													✓		

Date	Time	Relinquished by:	Received by:	Date	Time
8/19/16	1055			8/19/16	1055
8/19/16	1740			08/20/16	0915

Remarks:

BILL DIRECTLY TO BP:
200 Energy Court, Farmington, NM 87401 Attn.: John Ritchie

VID: VDRINKJWA1

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.

Chain-of-Custody Record

Client:	BLAGG ENGR. / BP AMERICA
Mailing Address:	P.O. BOX 87
	BLOOMFIELD, NM 87413
Phone #:	(505) 632-1199
Email or Fax#:	
QA/QC Package:	☑ Standard ☐ Level 4 (Full Validation)
Accreditation:	☐ NELAP ☐ Other
	☐ EDD (Type)

Turn-Around Time: ☑ Standard ☐ Rush

Project Name: **GCU # 215**

Project #:

Project Manager: **NELSON VELEZ**

Sampler: **NELSON VELEZ** NV

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.1

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1612461	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	Total Dissolved Solids	8260B (VOA)	8270 (Semi-VOA)	Anions / Cations Balance		Grab sample	5 pt. composite sample	Air Bubbles (Y or N)
12/6/16	1225	WATER	MW # 4	40 ml VOA - 2	HCl & Cool	-001	√													√		
12/6/16	1120	WATER	MW # 5	40 ml VOA - 2	HCl & Cool	-002	√													√		

Date	Time	Relinquished by:	Received by:	Date	Time
12/7/16	1540			12/7/16	1540
12/7/16	1910			12/08/16	0815

Remarks:

BILL DIRECTLY TO BP:

200 Energy Court, Farmington, NM 87401 Attn.: John Ritchie

VID: VDRINKWJA1

Chain-of-Custody Record

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

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

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

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name:
GCU # 215

Project #:

Project Manager:
NELSON VELEZ

Sampler: **NELSON VELEZ** NV

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.5

HALL ENVIRONMENTAL ANALYSIS LABORATORY
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Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1702A94	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	Total Dissolved Solids	8260B (VOA)	8270 (Semi-VOA)	Anions / Cations Balance		Grab sample	5 pt. composite sample
2/23/17	1335	WATER	MW # 4	40 ml VOA - 2	HCl & Cool	-001	✓													✓	
2/23/17	1240	WATER	MW # 5	40 ml VOA - 2	HCl & Cool	-002	✓													✓	

Date	Time	Relinquished by:	Received by:	Date	Time
2/23/17	1611			2/23/17	1611
	1841			02/24/17	0808

Remarks:

BILL DIRECTLY TO BP:
200 Energy Court, Farmington, NM 87401 Attn.: John Ritchie

VID: VDRINKWJA1

Chain-of-Custody Record

Client: BLAGG ENGR. / BP AMERICA

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

Phone #: (505) 632-1199

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name:
GCU # 215

Project #:

Project Manager:
NELSON VELEZ

Sampler: NELSON VELEZ NV

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0°C

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1706F13	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	Total Dissolved Solids	8260B (VOA)	8270 (Semi-VOA)	Anions / Cations Balance		Grab sample	5 pt. composite sample	Air Bubbles (Y or N)
6/27/17	1120	WATER	MW # 5	40 ml VOA - 2	HCl & Cool	-001	✓													✓		

Date	Time	Relinquished by	Received by	Date	Time
6/27/17	1405			6/27/17	1405
6/27/17	1938			6/28/17	0800

Remarks:

BILL DIRECTLY TO BP:
200 Energy Court, Farmington, NM 87401 Attn.: Steve Moskal

AFE: VRITCJWFEC WBS ELEMENT: L1 0018L-E:GCU215

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Chain-of-Custody Record

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

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

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

email or Fax#:

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name:
GCU # 215

Project #:

Project Manager:
NELSON VELEZ

Sampler: **NELSON VELEZ** NV

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.6

HALL ENVIRONMENTAL ANALYSIS LABORATORY
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Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1709644	BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	Total Dissolved Solids	8260B (VOA)	8270 (Semi-VOA)	Anions / Cations Balance		Grab sample	5 pt. composite sample	Air Bubbles (Y or N)
9/26/17	1310	WATER	MW # 1	40 ml VOA - 2	HCl & Cool	-001	√													√		
9/26/17	1310	WATER	MW # 1	500 ml - 1	Cool	-001									√			√		√		
9/26/17	1700	WATER	MW # 2	40 ml VOA - 2	HCl & Cool	-002	√													√		
9/26/17	1700	WATER	MW # 2	500 ml - 1	Cool	-002									√			√		√		
9/26/17	1605	WATER	MW # 3	40 ml VOA - 2	HCl & Cool	-003	√													√		
9/26/17	1605	WATER	MW # 3	500 ml - 1	Cool	-003									√			√		√		
9/26/17	1510	WATER	MW # 4	40 ml VOA - 2	HCl & Cool	-004	√													√		
9/26/17	1510	WATER	MW # 4	500 ml - 1	Cool	-004									√			√		√		
9/26/17	1415	WATER	MW # 5	40 ml VOA - 2	HCl & Cool	-005	√													√		
9/26/17	1415	WATER	MW # 5	500 ml - 1	Cool	-005									√			√		√		

Date:	Time:	Relinquished by:	Received by:	Date	Time
9/27/17	1340			9/27/17	1340
9/27/17	1826			09/28/17	0730

Remarks: **Report F, Cl, NO_3, SO_4, & TDS only for A/C balance.**

BILL DIRECTLY TO BP:
200 Energy Court, Farmington, NM 87401 Attn.: Steve Moskal
VID: VMOS6HQFEC WBS ELEMENT: L1-0018L-E:GCU215

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.

MONITOR WELL LABORATORY QUALITY ASSURANCE / QUALITY CONTROL

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501A34**

05-Feb-15

Client: Blagg Engineering

Project: GCU #215

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R23999**	RunNo: **23999**
Prep Date:	Analysis Date: **1/29/2015**	SeqNo: **707671** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R23999**	RunNo: **23999**
Prep Date:	Analysis Date: **1/29/2015**	SeqNo: **707672** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.8	0.50	5.000	0	95.5	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	101	90	110			
Sulfate	9.7	0.50	10.00	0	97.0	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R24057**	RunNo: **24057**
Prep Date:	Analysis Date: **2/2/2015**	SeqNo: **708996** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R24057**	RunNo: **24057**
Prep Date:	Analysis Date: **2/2/2015**	SeqNo: **708998** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	10	0.50	10.00	0	99.7	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501A34**

05-Feb-15

Client: Blagg Engineering

Project: GCU #215

Sample ID	**5ML RB**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBW**	Batch ID:	**R23989**	RunNo:	**23989**					
Prep Date:		Analysis Date:	**1/29/2015**	SeqNo:	**707426**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	23		20.00		117	66.6	167			

Sample ID	**100NG BTEX LCS**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSW**	Batch ID:	**R23989**	RunNo:	**23989**					
Prep Date:		Analysis Date:	**1/29/2015**	SeqNo:	**707427**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	92.3	80	120			
Toluene	18	1.0	20.00	0	91.7	80	120			
Ethylbenzene	19	1.0	20.00	0	92.6	80	120			
Xylenes, Total	60	2.0	60.00	0	99.5	80	120			
Surr: 4-Bromofluorobenzene	22		20.00		112	66.6	167			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501A34**

05-Feb-15

Client: Blagg Engineering

Project: GCU #215

Sample ID	**MB-17468**	SampType:	**MBLK**	TestCode:	**SM2540C MOD: Total Dissolved Solids**					
Client ID:	**PBW**	Batch ID:	**17468**	RunNo:	**24014**					
Prep Date:	**1/29/2015**	Analysis Date:	**1/30/2015**	SeqNo:	**708058**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	**LCS-17468**	SampType:	**LCS**	TestCode:	**SM2540C MOD: Total Dissolved Solids**					
Client ID:	**LCSW**	Batch ID:	**17468**	RunNo:	**24014**					
Prep Date:	**1/29/2015**	Analysis Date:	**1/30/2015**	SeqNo:	**708059**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1030	20.0	1000	0	103	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: **1501A34** RcptNo: 1

Received by/date: 01/29/2015

Logged By: **Ashley Gallegos** **1/29/2015 8:00:00 AM**

Completed By: **Ashley Gallegos** **1/29/2015 10:59:54 AM**

Reviewed By: 01/29/15

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1502624**

23-Feb-15

Client: Blagg Engineering

Project: GCU #215

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R24319**	RunNo: **24319**
Prep Date:	Analysis Date: **2/13/2015**	SeqNo: **716676** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R24319**	RunNo: **24319**
Prep Date:	Analysis Date: **2/13/2015**	SeqNo: **716677** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	105	90	110			
Chloride	4.7	0.50	5.000	0	94.9	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.1	90	110			
Sulfate	9.6	0.50	10.00	0	96.2	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1502624**

23-Feb-15

Client: Blagg Engineering

Project: GCU #215

Sample ID	**5ML RB**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBW**	Batch ID:	**R24332**	RunNo:	**24332**					
Prep Date:		Analysis Date:	**2/16/2015**	SeqNo:	**717056**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	20		20.00		101	66.6	167			

Sample ID	**100NG BTEX LCS**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSW**	Batch ID:	**R24332**	RunNo:	**24332**					
Prep Date:		Analysis Date:	**2/16/2015**	SeqNo:	**717057**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	114	80	120			
Toluene	22	1.0	20.00	0	112	80	120			
Ethylbenzene	22	1.0	20.00	0	109	80	120			
Xylenes, Total	65	2.0	60.00	0	108	80	120			
Surr: 4-Bromofluorobenzene	22		20.00		111	66.6	167			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1502624**

23-Feb-15

Client: Blagg Engineering

Project: GCU #215

Sample ID	**MB-17789**	SampType:	**MBLK**	TestCode:	**SM2540C MOD: Total Dissolved Solids**					
Client ID:	**PBW**	Batch ID:	**17789**	RunNo:	**24401**					
Prep Date:	**2/17/2015**	Analysis Date:	**2/19/2015**	SeqNo:	**718882**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	**LCS-17789**	SampType:	**LCS**	TestCode:	**SM2540C MOD: Total Dissolved Solids**					
Client ID:	**LCSW**	Batch ID:	**17789**	RunNo:	**24401**					
Prep Date:	**2/17/2015**	Analysis Date:	**2/19/2015**	SeqNo:	**718883**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1020	20.0	1000	0	102	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1502624 | RcptNo: 1

Received by/date: AM 02/13/15

Logged By: **Ashley Gallegos** 2/13/2015 7:15:00 AM

Completed By: **Ashley Gallegos** 2/13/2015 10:22:27 AM

Reviewed By: CS 02/13/15

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	Adjusted?
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.2	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1505941**

29-May-15

Client: Blagg Engineering

Project: GCU #215

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R26388**	RunNo: **26388**
Prep Date:	Analysis Date: **5/22/2015**	SeqNo: **784061** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R26388**	RunNo: **26388**
Prep Date:	Analysis Date: **5/22/2015**	SeqNo: **784062** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	95.9	90	110			
Chloride	4.8	0.50	5.000	0	96.1	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	101	90	110			
Sulfate	9.8	0.50	10.00	0	98.4	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1505941**

29-May-15

Client: Blagg Engineering

Project: GCU #215

Sample ID	**5ML RB**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBW**	Batch ID:	**R26413**	RunNo:	**26413**					
Prep Date:		Analysis Date:	**5/26/2015**	SeqNo:	**784886**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	21		20.00		103	80	120			

Sample ID	**100NG BTEX LCSB**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSW**	Batch ID:	**R26413**	RunNo:	**26413**					
Prep Date:		Analysis Date:	**5/26/2015**	SeqNo:	**784887**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	110	80	120			
Toluene	22	1.0	20.00	0	112	80	120			
Ethylbenzene	22	1.0	20.00	0	109	80	120			
Xylenes, Total	65	2.0	60.00	0	108	80	120			
Surr: 4-Bromofluorobenzene	22		20.00		110	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1505941**

29-May-15

Client: Blagg Engineering

Project: GCU #215

Sample ID	**MB-19387**	SampType:	**MBLK**	TestCode:	**SM2540C MOD: Total Dissolved Solids**					
Client ID:	**PBW**	Batch ID:	**19387**	RunNo:	**26440**					
Prep Date:	**5/26/2015**	Analysis Date:	**5/27/2015**	SeqNo:	**785623**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	**LCS-19387**	SampType:	**LCS**	TestCode:	**SM2540C MOD: Total Dissolved Solids**					
Client ID:	**LCSW**	Batch ID:	**19387**	RunNo:	**26440**					
Prep Date:	**5/26/2015**	Analysis Date:	**5/27/2015**	SeqNo:	**785624**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	20.0	1000	0	101	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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4901 Hawkins NE
Albuquerque, NM 87109
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Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: BLAGG Work Order Number: 1505941 RcptNo: 1

Received by/date: AT 05/21/15

Logged By: **Anne Thorne** 5/21/2015 7:00:00 AM Anne Thorne

Completed By: **Anne Thorne** 5/21/2015 Anne Thorne

Reviewed By: JA 05/22/15

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? _____
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1508C68**

28-Aug-15

Client: Blagg Engineering

Project: GCU # 215

Sample ID	**5ML RB**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBW**	Batch ID:	**a28483**	RunNo:	**28483**					
Prep Date:		Analysis Date:	**8/26/2015**	SeqNo:	**861095**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	20		20.00		102	65	127			

Sample ID	**100NG BTEX LCS**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSW**	Batch ID:	**a28483**	RunNo:	**28483**					
Prep Date:		Analysis Date:	**8/26/2015**	SeqNo:	**861096**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.2	80	120			
Toluene	20	1.0	20.00	0	100	80	120			
Ethylbenzene	20	1.0	20.00	0	101	80	120			
Xylenes, Total	59	2.0	60.00	0	98.0	80	120			
Surr: 4-Bromofluorobenzene	21		20.00		104	65	127			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **BLAGG** Work Order Number: **1508C68** RcptNo: **1**

Received by/date: 08/26/15
Logged By: **Lindsay Mangin** **8/26/2015 7:00:00 AM**
Completed By: **Lindsay Mangin** **8/26/2015 10:32:10 AM**
Reviewed By: CS 08/26/15

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	~~No VOA Vials~~ ☑ 08/26/15
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1512204**

10-Dec-15

Client: Blagg Engineering

Project: GCU #215

Sample ID	**5ML RB**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBW**	Batch ID:	**B30727**	RunNo:	**30727**					
Prep Date:		Analysis Date:	**12/9/2015**	SeqNo:	**938935**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	23		20.00		117	65	127			

Sample ID	**100NG BTEX LCS**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSW**	Batch ID:	**B30727**	RunNo:	**30727**					
Prep Date:		Analysis Date:	**12/9/2015**	SeqNo:	**938936**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	80	120			
Toluene	19	1.0	20.00	0	95.9	80	120			
Ethylbenzene	20	1.0	20.00	0	101	80	120			
Xylenes, Total	59	2.0	60.00	0	97.9	80	120			
Surr: 4-Bromofluorobenzene	28		20.00		141	65	127			S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

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Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **BLAGG** Work Order Number: **1512204** RcptNo: **1**

Received by/date: 12/04/15

Logged By: **Joe Archuleta** **12/4/2015 8:00:00 AM**

Completed By: **Joe Archuleta** **12/4/2015 11:05:21 AM**

Reviewed By: 12/04/15

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A67**

01-Mar-16

Client: Blagg Engineering

Project: GCU #215

Sample ID	**5ML RB**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBW**	Batch ID:	**R32443**	RunNo:	**32443**					
Prep Date:		Analysis Date:	**2/26/2016**	SeqNo:	**992135**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	21		20.00		106	65	127			

Sample ID	**100NG BTEX LCS**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSW**	Batch ID:	**R32443**	RunNo:	**32443**					
Prep Date:		Analysis Date:	**2/26/2016**	SeqNo:	**992136**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	90.8	80	120			
Toluene	19	1.0	20.00	0	94.9	80	120			
Ethylbenzene	19	1.0	20.00	0	95.8	80	120			
Xylenes, Total	58	2.0	60.00	0	96.5	80	120			
Surr: 4-Bromofluorobenzene	24		20.00		119	65	127			

Qualifiers:

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

Analytical Report
Lab Order **1508C68**
Date Reported: **8/28/2015**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering
Client Sample ID: MW # 4
Project: GCU # 215
Collection Date: 8/24/2015 8:05:00 AM
Lab ID: 1508C68-001
Matrix: AQUEOUS
Received Date: 8/26/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	1.2	1.0		µg/L	1	8/27/2015 2:18:13 AM	a28483
Toluene	ND	1.0		µg/L	1	8/27/2015 2:18:13 AM	a28483
Ethylbenzene	8.6	1.0		µg/L	1	8/27/2015 2:18:13 AM	a28483
Xylenes, Total	ND	2.0		µg/L	1	8/27/2015 2:18:13 AM	a28483
Surr: 4-Bromofluorobenzene	104	65-127		%REC	1	8/27/2015 2:18:13 AM	a28483

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1602A67 | RcptNo: 1

Received by/date: LM 02/25/16

Logged By: **Anne Thorne** 2/25/2016 7:20:00 AM Anne Thorne

Completed By: **Anne Thorne** 2/25/2016 Anne Thorne

Reviewed By: JA 02/25/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.2	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605B98**

01-Jun-16

Client: Blagg Engineering

Project: GCU 215

Sample ID	**5ML RB**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBW**	Batch ID:	**A34548**	RunNo:	**34548**					
Prep Date:		Analysis Date:	**5/27/2016**	SeqNo:	**1065532**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	23		20.00		113	87.9	146			

Sample ID	**100NG BTEX LCS**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSW**	Batch ID:	**A34548**	RunNo:	**34548**					
Prep Date:		Analysis Date:	**5/27/2016**	SeqNo:	**1065533**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	92.0	80	120			
Toluene	19	1.0	20.00	0	92.8	80	120			
Ethylbenzene	18	1.0	20.00	0	89.8	80	120			
Xylenes, Total	54	2.0	60.00	0	89.8	80	120			
Surr: 4-Bromofluorobenzene	24		20.00		122	87.9	146			

Qualifiers:

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

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Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: BLAGG | Work Order Number: 1605B98 | RcptNo: 1

Received by/date: 05/26/16

Logged By: Lindsay Mangin 5/26/2016 7:54:00 AM

Completed By: Lindsay Mangin 5/26/2016 9:01:41 AM

Reviewed By: AT 05/26/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.5	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608C15**

25-Aug-16

Client: Blagg Engineering

Project: GCU 215

Sample ID	**5ML RB**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBW**	Batch ID:	**B36734**	RunNo:	**36734**					
Prep Date:		Analysis Date:	**8/24/2016**	SeqNo:	**1138368**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	20		20.00		98.7	87.9	146			

Sample ID	**100NG BTEX LCS**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSW**	Batch ID:	**B36734**	RunNo:	**36734**					
Prep Date:		Analysis Date:	**8/24/2016**	SeqNo:	**1138369**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.8	80	120			
Toluene	19	1.0	20.00	0	94.4	80	120			
Ethylbenzene	18	1.0	20.00	0	91.9	80	120			
Xylenes, Total	54	2.0	60.00	0	89.5	80	120			
Surr: 4-Bromofluorobenzene	20		20.00		101	87.9	146			

Qualifiers:

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

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Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **BLAGG** Work Order Number: **1608C15** RcptNo: **1**

Received by/date: 08/20/16

Logged By: **Lindsay Mangin** **8/20/2016 9:15:00 AM**

Completed By: **Lindsay Mangin** **8/20/2016 11:58:25 AM**

Reviewed By: JC 08/23/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.8	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1612461**

12-Dec-16

Client: Blagg Engineering

Project: GCU 215

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **B39284**	RunNo: **39284**
Prep Date:	Analysis Date: **12/9/2016**	SeqNo: **1229721** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	19		20.00		96.4	80	120			

Sample ID **100NG BTEX LCSB**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **B39284**	RunNo: **39284**
Prep Date:	Analysis Date: **12/9/2016**	SeqNo: **1229722** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	114	80	120			
Toluene	22	1.0	20.00	0	112	80	120			
Ethylbenzene	22	1.0	20.00	0	108	80	120			
Xylenes, Total	62	2.0	60.00	0	103	80	120			
Surr: 4-Bromofluorobenzene	20		20.00		100	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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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: 1612461

RcptNo: 1

Received by/date: 12/08/16

Logged By: Ashley Gallegos 12/8/2016 8:10:00 AM

Completed By: Ashley Gallegos 12/8/2016 1:48:03 PM

Reviewed By: 12/09/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes	No	Not Present ✔
2. Is Chain of Custody complete?	Yes ✔	No	Not Present
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ✔	No	NA
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ✔	No	NA
6. Sample(s) in proper container(s)?	Yes ✔	No	
7. Sufficient sample volume for indicated test(s)?	Yes ✔	No	
8. Are samples (except VOA and ONG) properly preserved?	Yes ✔	No	
9. Was preservative added to bottles?	Yes	No ✔	NA
10. VOA vials have zero headspace?	Yes ✔	No	No VOA Vials
11. Were any sample containers received broken?	Yes	No ✔	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✔	No	Adjusted?
13. Are matrices correctly identified on Chain of Custody?	Yes ✔	No	
14. Is it clear what analyses were requested?	Yes ✔	No	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✔	No	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes No NA ✔

Person Notified: Date

By Whom: Via: eMail Phone Fax In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1702A94**

03-Mar-17

Client: Blagg Engineering

Project: GCU 215

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **B41093**	RunNo: **41093**
Prep Date:	Analysis Date: **3/1/2017**	SeqNo: **1287202** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	11		10.00		112	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		91.4	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	9.9		10.00		99.2	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **B41093**	RunNo: **41093**
Prep Date:	Analysis Date: **3/1/2017**	SeqNo: **1287203** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	70	130			
Toluene	20	1.0	20.00	0	98.6	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.4	70	130			
Surr: Dibromofluoromethane	10		10.00		99.8	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Qualifiers:

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

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Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: BLAGG | Work Order Number: 1702A94 | RcptNo: 1

Received by/date: AG 02/24/17

Logged By: Ashley Gallegos 2/24/2017 8:08:00 AM

Completed By: Ashley Gallegos 2/24/2017 9:09:34 AM

Reviewed By: 02/24/17

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1706F13**

03-Jul-17

Client: Blagg Engineering

Project: GCU 215

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **A43907**	RunNo: **43907**
Prep Date:	Analysis Date: **6/29/2017**	SeqNo: **1384011** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.6		10.00		95.6	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **A43907**	RunNo: **43907**
Prep Date:	Analysis Date: **6/29/2017**	SeqNo: **1384012** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	10		10.00		105	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	9.4		10.00		94.4	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **B43928**	RunNo: **43928**
Prep Date:	Analysis Date: **6/30/2017**	SeqNo: **1385538** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	11		10.00		108	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130			
Surr: Dibromofluoromethane	9.9		10.00		99.1	70	130			
Surr: Toluene-d8	10		10.00		99.6	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **B43928**	RunNo: **43928**
Prep Date:	Analysis Date: **6/30/2017**	SeqNo: **1385539** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	70	130			
Toluene	20	1.0	20.00	0	100	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.4	70	130			
Surr: Toluene-d8	9.5		10.00		94.9	70	130			

Qualifiers:

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

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Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: BLAGG | Work Order Number: 1706F13 | RcptNo: 1

Received By: Andy Jansson 6/28/2017 8:00:00 AM

Completed By: Sophia Campuzano 6/28/2017 2:32:15 PM

Reviewed By: IO 6/28/17

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1709G44**

11-Oct-17

Client: Blagg Engineering

Project: GCU 215

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R46083**	RunNo: **46083**
Prep Date:	Analysis Date: **10/3/2017**	SeqNo: **1465943** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R46083**	RunNo: **46083**
Prep Date:	Analysis Date: **10/3/2017**	SeqNo: **1465944** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.54	0.10	0.5000	0	107	90	110			
Chloride	4.9	0.50	5.000	0	98.8	90	110			
Nitrogen, Nitrite (As N)	1.0	0.10	1.000	0	101	90	110			
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	104	90	110			
Sulfate	10	0.50	10.00	0	102	90	110			

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R46093**	RunNo: **46093**
Prep Date:	Analysis Date: **10/4/2017**	SeqNo: **1467787** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R46093**	RunNo: **46093**
Prep Date:	Analysis Date: **10/4/2017**	SeqNo: **1467788** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	9.9	0.50	10.00	0	99.0	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1709G44**

11-Oct-17

Client: Blagg Engineering

Project: GCU 215

Sample ID	**RB**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBW**	Batch ID:	**B46025**	RunNo:	**46025**					
Prep Date:		Analysis Date:	**10/2/2017**	SeqNo:	**1463598**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	23		20.00		116	72.5	140			

Sample ID	**100NG BTEX LCS**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSW**	Batch ID:	**B46025**	RunNo:	**46025**					
Prep Date:		Analysis Date:	**10/2/2017**	SeqNo:	**1463599**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	92.5	71.7	126			
Toluene	19	1.0	20.00	0	93.1	73.3	119			
Ethylbenzene	20	1.0	20.00	0	101	80	120			
Xylenes, Total	62	2.0	60.00	0	104	80	120			
Surr: 4-Bromofluorobenzene	24		20.00		118	72.5	140			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1709G44**

11-Oct-17

Client: Blagg Engineering

Project: GCU 215

Sample ID	**MB-34165**	SampType:	**MBLK**		TestCode:	**SM2540C MOD: Total Dissolved Solids**				
Client ID:	**PBW**	Batch ID:	**34165**		RunNo:	**46052**				
Prep Date:	**10/1/2017**	Analysis Date:	**10/3/2017**		SeqNo:	**1464423**	Units:	**mg/L**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	**LCS-34165**	SampType:	**LCS**		TestCode:	**SM2540C MOD: Total Dissolved Solids**				
Client ID:	**LCSW**	Batch ID:	**34165**		RunNo:	**46052**				
Prep Date:	**10/1/2017**	Analysis Date:	**10/3/2017**		SeqNo:	**1464424**	Units:	**mg/L**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1020	20.0	1000	0	102	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1709G44 | RcptNo: 1

Received By: **Sophia Campuzano** 9/28/2017 7:30:00 AM Sophia Campuzano

Completed By: **Michelle Garcia** 9/29/2017 8:17:57 AM Michelle Garcia

Reviewed By: 9/29/17

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 5
(<2 or >12 unless noted)
Adjusted? yes
Checked by: DDS

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

17. Additional remarks: Poured off from 1709G44 01-05B to 01-05C.

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.6	Good	Yes			