

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
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NMOCD Form C-141
Revised August 8, 2011
Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.
MAR 15 2018
DISTRICT III

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company: BP America Production Co.	Contact: Steve Moskal
Address: 380 Airport Road, Durango, CO 81303	Telephone No.: 505-330-9179
Facility Name: Gutierrez Gas Con B 001	Facility Type: Natural gas well
Surface Owner: Private	Mineral Owner: Federal
API No. 3004508808	

LOCATION OF RELEASE

Unit Letter B	Section 4	Township 29N	Range 09W	Feet from the 1,050	North/South Line North	Feet from the 1,850	East/West Line East	County: San Juan
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Latitude 36.758165° Longitude -107.782619°

NATURE OF RELEASE

Type of Release: condensate	Volume of Release: Unknown	Volume Recovered: none
Source of Release: Leaking flow line associated with condensate tank	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: May 31, 2012
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* Soil impacts derived from a leaking flow line associated with a condensate production tank.. Remedial actions taken include excavation and groundwater monitoring.		
Describe Area Affected and Cleanup Action Taken.* Site remediation included excavation and groundwater monitoring to confirm groundwater impacts. Soil samples confirm excavation extents were reached and impacted soils removed from the site. Groundwater monitoring indicates no impacts to groundwater from the condensate release as there are any BTEX impacts. Constituents above closure standards include sulfates, nitrates, iron and TDS which are likely the result of background concentrations common in the San Juan Basin. These results were compared to a sample collected from a nearby produced water tank with concentrations significantly lower than the mentioned background concentrations. BP requests no further action at this location.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.		

OIL CONSERVATION DIVISION

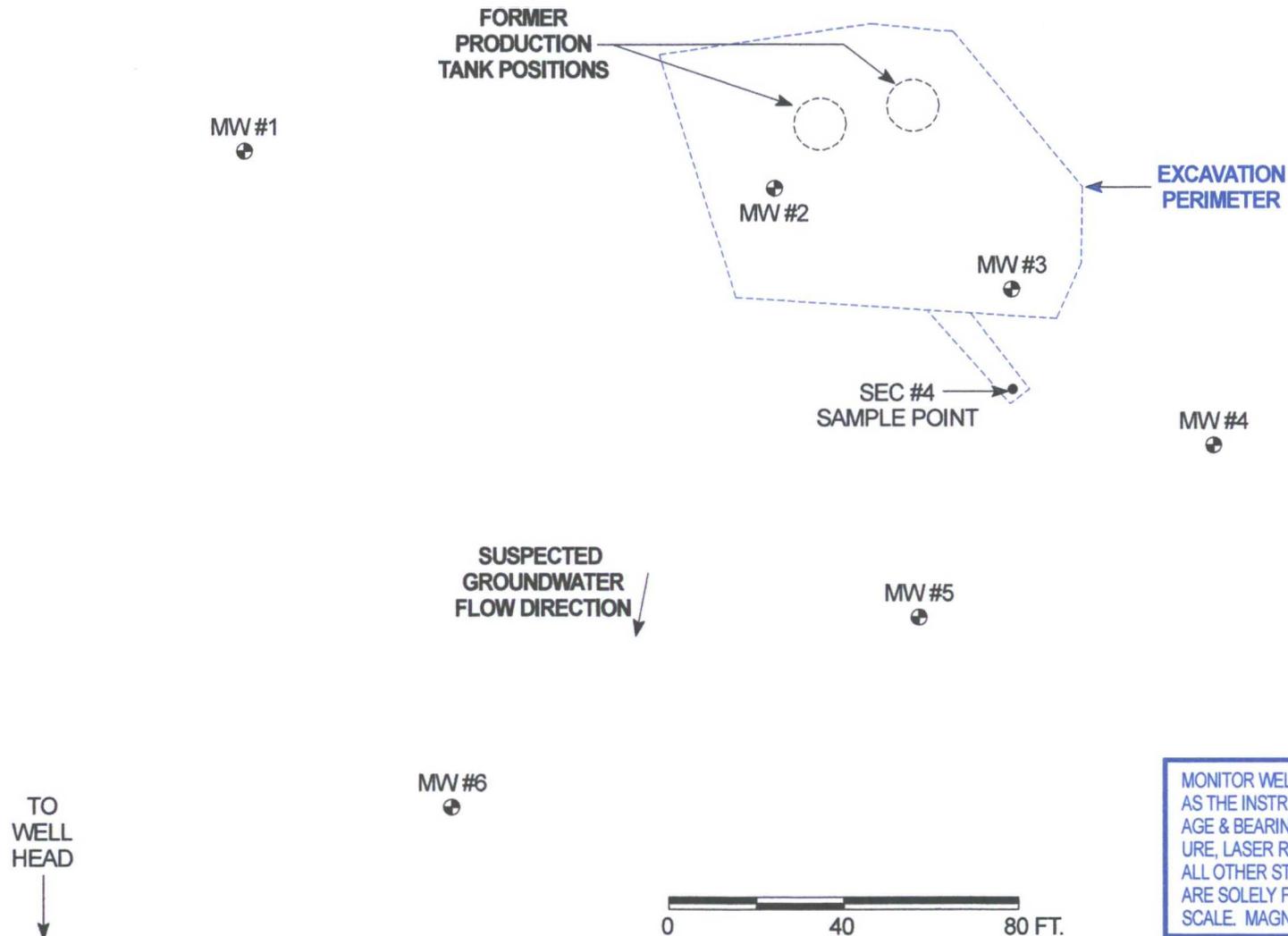
Signature:	Approved by Environmental Specialist:	
Printed Name: Steve Moskal	Approval Date: 5/7/18	Expiration Date:
Title: Field Environmental Coordinator	Conditions of Approval: <u>Soil Samples in previous C-141</u>	
E-mail Address: steven.moskal@bp.com	Attached <input type="checkbox"/>	
Date: March 12, 2018	Phone: 505-330-9179	

* Attach Additional Sheets If Necessary

#10CS1703952493 previous C-141

19

FIGURE 1



BP AMERICA PRODUCTION COMPANY
GUTIERREZ GC B# 1
NW/4 NE/4 SEC. 4, T29N, R9W
SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.
CONSULTING PETROLEUM / RECLAMATION SERVICES
P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413
PHONE: (505) 632-1199

PROJECT: MW INSTALLATIONS
DRAWN BY: NJV
FILENAME: GUTIERREZ GC B 1 MW-SM.SKF
DRAFTED: 12-18-2015

**SITE
MAP**
08/13

BP - Gutierrez GC B 001

Unit Letter B, Sec. 4, T29N, R9W
API #: 3004508808

Imagery Date: 03/15/2015



Google earth

200 ft



BP AMERICA PRODUCTION COMPANY

Gutierrez GC B #1

Unit Letter B, Section 4, T29N, R9W - API Number: 30-045-08808

Field & Laboratory Data from Groundwater Monitor Wells & Produced Water from Jaquez GC B 003E

SAMPLE ID	FIELD PARAMETERS							
	SAMPLE DATE	SAMPLE TIME	DEPTH TO WATER (feet)	TOTAL MW LENGTH (feet)	pH	Conductivity (µmhos/cm)	Temperature (°Celcius)	Volume Purged (gallons)
MW # 1	08/15/13	1315	25.22	36.61	7.42	1,500	17.4	5.50
	03/30/18	1025	26.99	"	7.12	2,000	14.8	4.75
MW # 2	08/15/13	1530	22.03	31.52	7.16	1,900	17.8	4.75
	03/30/18	1405	23.72	"	7.06	3,200	15.4	3.75
MW # 3	08/15/13	1445	21.38	31.50	7.28	1,800	17.7	5.00
	03/30/18	1320	13.08	"	6.99	3,800	15.3	4.25
MW # 4	08/15/13	1400	20.41	30.50	7.48	2,000	17.4	5.00
	03/30/18	1235	22.07	"	7.06	4,600	15.3	4.25
MW # 5	08/15/13	1140	20.01	31.28	7.29	1,200	17.4	5.50
	03/30/18	1150	21.68	"	7.11	2,000	16.0	4.75
MW # 6	08/15/13	1225	20.96	31.09	7.32	1,500	17.8	5.00
	03/30/18	1110	23.71	"	7.09	2,500	16.2	3.75
LP AGT Produced Water	01/20/16	1210	NA	NA	NA	NA	NA	NA

NMWQCC STANDARDS - 6 - 9

BP AMERICA PRODUCTION COMPANY

Gutierrez GC B #1

Unit Letter B, Section 4, T29N, R9W - API Number: 30-045-08808

Field & Laboratory Data from Groundwater Monitor Wells & Produced Water from Jaquez GC B 003E

SAMPLE ID	LABORATORY PARAMETERS									
	Fluoride (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate- Nitrite as N (mg/L)	Iron (mg/L)	TDS (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl - benzene (µg/L)	Total Xylenes (µg/L)
MW # 1	0.85	18	1,700	ND	1.8	2,840	ND	ND	ND	ND
"	<0.50	11	1,300	<0.50	NA	2,240	NA	NA	NA	NA
MW # 2	1.00	41	2,700	0.44	0.54	4,810	ND	ND	ND	ND
"	0.59	44	2,600	<0.50	NA	4,430	NA	NA	NA	NA
MW # 3	1.0	47	2,300	ND	13	4,330	ND	ND	ND	ND
"	<0.50	120	3,600	<0.50	NA	6,040	NA	NA	NA	NA
MW # 4	0.93	92	2,900	0.25	8.1	5,050	ND	ND	ND	ND
"	<0.50	200	4,200	0.54	NA	6,230	NA	NA	NA	NA
MW # 5	0.53	12	1,300	ND	1.4	2,420	ND	ND	ND	ND
"	<0.50	13	1,400	<0.50	NA	2,290	NA	NA	NA	NA
MW # 6	0.88	18	1,800	ND	0.85	3,460	ND	ND	ND	ND
"	0.85	17	1,800	<0.50	NA	3,010	NA	NA	NA	NA
LP AGT Produced Water	NA	NA	1.2	NA	NA	140	NA	NA	NA	NA
NMWQCC STANDARDS -	1.6	250	600	10	1.0	1,000	10	750	750	620

Notes:

Depth to water measured from casing top of monitor well.

Groundwater standards are applied to values assigned in blue highlighted boxes or confirmed background levels, which ever is higher.

MW - Monitor well
 µmhos/cm - Micromhos per centimeter
 TDS - Total dissolved solids
 mg/L - Milligram per Liter

µg/L - Microgram per liter
 NA - Not Available or Applicable
 ND - Not detected at Reporting Limit
 NMWQCC - New Mexico Water Quality Control Commission

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

GUTIERREZ GC B # 1
UNIT B, SEC. 4, T29N, R9W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : March 30, 2017
Filename : Gutierrez GC B 1 mw log 2017-03-30.xls

DEVELOPER / SAMPLER : N J V
PROJECT MANAGER : N J V

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	105.50	78.51	26.99	36.61	1025	7.12	2,000	14.8	4.75
2	102.21	78.49	23.72	31.52	1405	7.06	3,200	15.4	3.75
3	101.54	78.46	23.08	31.50	1320	6.99	3,800	15.3	4.25
4	100.46	78.39	22.07	30.50	1235	7.06	4,600	15.3	4.25
5	100.05	78.37	21.68	31.28	1150	7.11	2,000	16	4.75
6	100.95	77.24	23.71	31.09	1110	7.09	2,500	16.2	3.75

INSTRUMENT CALIBRATIONS =		4.017.00/10.00	2,800
DATE & TIME =		03/30/17	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".

Monitor wells installed 08/02 to 08/06, 2013. Gauging & development completed on 08/12/13. Well top survey on 08/13/13.
Excellent recovery in all monitor wells. No physical indication of hydrocarbons within purged water observed prior to sample collection. 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. Collected samples from all MW's for general chemistry parameters.

Top of casing MW # 1 ~ 2.50 ft. , MW # 2 ~ 2.70 ft. , MW # 3 ~ 2.65 ft. , MW # 4 ~ 2.60 ft. , MW # 5 ~ 2.55 ft. , MW # 6 ~ 2.50 ft. below grade .

on-site	<u>9:45 AM</u>	temp	<u>45 F</u>
off-site	<u>2:15 PM</u>	temp	<u>67 F</u>
sky cond.	<u>Sunny</u>		
wind speed	<u>0 - 10</u>	direct.	<u>E - ESE</u>

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering **Client Sample ID:** MW # 1
Project: Gutierrez GC B 1 **Collection Date:** 3/30/2017 10:25:00 AM
Lab ID: 1703F54-001 **Matrix:** AQUEOUS **Received Date:** 3/31/2017 6:56:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	0.50		mg/L	5	3/31/2017 7:05:46 PM	R41834
Chloride	11	2.5		mg/L	5	3/31/2017 7:05:46 PM	R41834
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	3/31/2017 7:05:46 PM	R41834
Sulfate	1300	25		mg/L	50	4/5/2017 5:32:56 PM	R41933
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	2400	1.0		µmhos/cm	1	4/3/2017 6:07:25 PM	R41861
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	186.5	20.00		mg/L CaCO3	1	4/3/2017 6:07:25 PM	R41861
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	4/3/2017 6:07:25 PM	R41861
Total Alkalinity (as CaCO3)	186.5	20.00		mg/L CaCO3	1	4/3/2017 6:07:25 PM	R41861
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	2240	100	*D	mg/L	1	4/8/2017 1:38:00 PM	31115
EPA METHOD 6010B: DISSOLVED METALS							Analyst: MED
Calcium	440	5.0		mg/L	5	4/3/2017 9:54:00 AM	A41828
Magnesium	53	1.0		mg/L	1	4/3/2017 9:52:25 AM	A41828
Potassium	ND	1.0		mg/L	1	4/3/2017 9:52:25 AM	A41828
Sodium	130	5.0		mg/L	5	4/3/2017 9:54:00 AM	A41828

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 # 2

Project: Gutierrez GC B 1

Collection Date: 3/30/2017 2:05:00 PM

Lab ID: 1703F54-002

Matrix: AQUEOUS

Received Date: 3/31/2017 6:56:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.59	0.50		mg/L	5	3/31/2017 7:55:24 PM	R41834
Chloride	44	10		mg/L	20	3/31/2017 8:07:49 PM	R41834
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	3/31/2017 7:55:24 PM	R41834
Sulfate	2600	50		mg/L	100	4/5/2017 5:45:21 PM	R41933
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	4400	1.0		µmhos/cm	1	4/3/2017 6:18:25 PM	R41861
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO ₃)	269.6	20.00		mg/L CaCO ₃	1	4/3/2017 6:18:25 PM	R41861
Carbonate (As CaCO ₃)	ND	2.000		mg/L CaCO ₃	1	4/3/2017 6:18:25 PM	R41861
Total Alkalinity (as CaCO ₃)	269.6	20.00		mg/L CaCO ₃	1	4/3/2017 6:18:25 PM	R41861
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	4430	100	*D	mg/L	1	4/8/2017 1:38:00 PM	31115
EPA METHOD 6010B: DISSOLVED METALS							Analyst: MED
Calcium	480	10		mg/L	10	4/4/2017 9:44:32 AM	A41865
Magnesium	210	5.0		mg/L	5	4/3/2017 10:02:31 AM	A41828
Potassium	1.4	1.0		mg/L	1	4/3/2017 10:00:46 AM	A41828
Sodium	440	5.0		mg/L	5	4/3/2017 10:02:31 AM	A41828

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 # 3

Project: Gutierrez GC B 1

Collection Date: 3/30/2017 1:20:00 PM

Lab ID: 1703F54-003

Matrix: AQUEOUS

Received Date: 3/31/2017 6:56:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	0.50		mg/L	5	3/31/2017 8:20:14 PM	R41834
Chloride	120	10		mg/L	20	3/31/2017 8:32:39 PM	R41834
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	3/31/2017 8:20:14 PM	R41834
Sulfate	3800	50		mg/L	100	4/5/2017 6:22:35 PM	R41933
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	6300	1.0		µmhos/cm	1	4/3/2017 6:32:19 PM	R41861
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO ₃)	441.1	20.00		mg/L CaCO ₃	1	4/3/2017 6:32:19 PM	R41861
Carbonate (As CaCO ₃)	ND	2.000		mg/L CaCO ₃	1	4/3/2017 6:32:19 PM	R41861
Total Alkalinity (as CaCO ₃)	441.1	20.00		mg/L CaCO ₃	1	4/3/2017 6:32:19 PM	R41861
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	6040	40.0	*D	mg/L	1	4/8/2017 1:38:00 PM	31115
EPA METHOD 6010B: DISSOLVED METALS							Analyst: MED
Calcium	400	5.0		mg/L	5	4/3/2017 10:05:58 AM	A41828
Magnesium	340	5.0		mg/L	5	4/3/2017 10:05:58 AM	A41828
Potassium	1.1	1.0		mg/L	1	4/3/2017 10:04:05 AM	A41828
Sodium	910	10		mg/L	10	4/4/2017 9:46:10 AM	A41865

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 1703F54
 Date Reported: 4/11/2017

CLIENT: Blagg Engineering

Client Sample ID: MW # 4

Project: Gutierrez GC B 1

Collection Date: 3/30/2017 12:35:00 PM

Lab ID: 1703F54-004

Matrix: AQUEOUS

Received Date: 3/31/2017 6:56:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	0.50		mg/L	5	3/31/2017 9:09:53 PM	R41834
Chloride	200	10		mg/L	20	3/31/2017 9:22:18 PM	R41834
Nitrogen, Nitrate (As N)	0.54	0.50		mg/L	5	3/31/2017 9:09:53 PM	R41834
Sulfate	4200	50		mg/L	100	4/5/2017 6:35:00 PM	R41933
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	6700	1.0		µmhos/cm	1	4/3/2017 6:51:40 PM	R41861
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	405.1	20.00		mg/L CaCO3	1	4/3/2017 6:51:40 PM	R41861
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	4/3/2017 6:51:40 PM	R41861
Total Alkalinity (as CaCO3)	405.1	20.00		mg/L CaCO3	1	4/3/2017 6:51:40 PM	R41861
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	6230	200	*D	mg/L	1	4/8/2017 1:38:00 PM	31115
EPA METHOD 6010B: DISSOLVED METALS							Analyst: MED
Calcium	470	5.0		mg/L	5	4/3/2017 10:09:27 AM	A41828
Magnesium	280	5.0		mg/L	5	4/3/2017 10:09:27 AM	A41828
Potassium	1.7	1.0		mg/L	1	4/3/2017 10:07:38 AM	A41828
Sodium	1100	20		mg/L	20	4/4/2017 9:47:45 AM	A41865

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: Gutierrez GC B 1

Collection Date: 3/30/2017 11:50:00 AM

Lab ID: 1703F54-005

Matrix: AQUEOUS

Received Date: 3/31/2017 6:56:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	ND	0.50		mg/L	5	3/31/2017 9:34:43 PM	R41834
Chloride	13	2.5		mg/L	5	3/31/2017 9:34:43 PM	R41834
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	3/31/2017 9:34:43 PM	R41834
Sulfate	1400	25		mg/L	50	4/5/2017 6:47:24 PM	R41933
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	2400	1.0		µmhos/cm	1	4/3/2017 7:17:24 PM	R41861
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO ₃)	185.3	20.00		mg/L CaCO ₃	1	4/3/2017 7:17:24 PM	R41861
Carbonate (As CaCO ₃)	ND	2.000		mg/L CaCO ₃	1	4/3/2017 7:17:24 PM	R41861
Total Alkalinity (as CaCO ₃)	185.3	20.00		mg/L CaCO ₃	1	4/3/2017 7:17:24 PM	R41861
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	2290	100	*D	mg/L	1	4/8/2017 1:38:00 PM	31115
EPA METHOD 6010B: DISSOLVED METALS							Analyst: MED
Calcium	470	5.0		mg/L	5	4/3/2017 10:12:45 AM	A41828
Magnesium	65	1.0		mg/L	1	4/3/2017 10:11:10 AM	A41828
Potassium	ND	1.0		mg/L	1	4/3/2017 10:11:10 AM	A41828
Sodium	130	5.0		mg/L	5	4/3/2017 10:12:45 AM	A41828

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 1703F54

Date Reported: 4/11/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: MW # 6

Project: Gutierrez GC B 1

Collection Date: 3/30/2017 11:10:00 AM

Lab ID: 1703F54-006

Matrix: AQUEOUS

Received Date: 3/31/2017 6:56:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Fluoride	0.85	0.50		mg/L	5	3/31/2017 9:59:31 PM	R41834
Chloride	17	2.5		mg/L	5	3/31/2017 9:59:31 PM	R41834
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	3/31/2017 9:59:31 PM	R41834
Sulfate	1800	25		mg/L	50	4/5/2017 6:59:49 PM	R41933
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	3100	1.0		µmhos/cm	1	4/3/2017 7:28:24 PM	R41861
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	224.5	20.00		mg/L CaCO3	1	4/3/2017 7:28:24 PM	R41861
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	4/3/2017 7:28:24 PM	R41861
Total Alkalinity (as CaCO3)	224.5	20.00		mg/L CaCO3	1	4/3/2017 7:28:24 PM	R41861
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	3010	100	*D	mg/L	1	4/8/2017 1:38:00 PM	31115
EPA METHOD 6010B: DISSOLVED METALS							Analyst: MED
Calcium	470	5.0		mg/L	5	4/3/2017 10:16:01 AM	A41828
Magnesium	81	1.0		mg/L	1	4/3/2017 10:14:20 AM	A41828
Potassium	ND	1.0		mg/L	1	4/3/2017 10:14:20 AM	A41828
Sodium	260	5.0		mg/L	5	4/3/2017 10:16:01 AM	A41828

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

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:

GUTIERREZ GC B # 1

Project #:

Project Manager:

NELSON VELEZ

Sampler:

NELSON VELEZ

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	Cation / Anion Balance	Total Dissolved Solids	Iron, Ferrous (filtered)	Grab sample	5 pt. composite sample	Air Bubbles (Y or N)	
3/30/17	1025	WATER	MW # 1	500 ml - 1	Cool	-001								✓	✓			✓		
3/30/17	1405	WATER	MW # 2	500 ml - 1	Cool	-002								✓	✓			✓		
3/30/17	1320	WATER	MW # 3	500 ml - 1	Cool	-003								✓	✓			✓		
3/30/17	1235	WATER	MW # 4	500 ml - 1	Cool	-004								✓	✓			✓		
3/30/17	1150	WATER	MW # 5	500 ml - 1	Cool	-005								✓	✓			✓		
3/30/17	1110	WATER	MW # 6	500 ml - 1	Cool	-006								✓	✓			✓		

Date: *3/30/17* Time: *1715* Relinquished by: *[Signature]*

Received by: *[Signature]* Date: *3/30/17* Time: *1715*

Remarks: Report F, Cl, NO₃, & SO₄ only for C/A balance.

Date: *3/30/17* Time: *1926* Relinquished by: *[Signature]*

Received by: *[Signature]* Date: *3/30/17* Time: *2056*

BILL DIRECTLY TO BP:
200 Energy Court, Farmington, NM 87401 Attn.: John Ritchie

VID: VDRINKWA1

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.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1703F54

11-Apr-17

Client: Blagg Engineering
Project: Gutierrez GC B 1

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R41834		RunNo: 41834							
Prep Date:	Analysis Date: 3/31/2017		SeqNo: 1313218		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								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R41834		RunNo: 41834							
Prep Date:	Analysis Date: 3/31/2017		SeqNo: 1313219		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	106	90	110			
Chloride	4.8	0.50	5.000	0	96.5	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.7	90	110			

Sample ID MB	SampType: mblk		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R41933		RunNo: 41933							
Prep Date:	Analysis Date: 4/5/2017		SeqNo: 1316696		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: R41933		RunNo: 41933							
Prep Date:	Analysis Date: 4/5/2017		SeqNo: 1316697		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	98.6	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1703F54

11-Apr-17

Client: Blagg Engineering
Project: Gutierrez GC B 1

Sample ID	MB-A	SampType	MBLK	TestCode	EPA Method 6010B: Dissolved Metals					
Client ID	PBW	Batch ID	A41828	RunNo	41828					
Prep Date:		Analysis Date:	4/3/2017	SeqNo	1313066	Units	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID	LCS-A	SampType	LCS	TestCode	EPA Method 6010B: Dissolved Metals					
Client ID	LCSW	Batch ID	A41828	RunNo	41828					
Prep Date:		Analysis Date:	4/3/2017	SeqNo	1313067	Units	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	50	1.0	50.00	0	99.6	80	120			
Magnesium	50	1.0	50.00	0	100	80	120			
Potassium	48	1.0	50.00	0	96.8	80	120			
Sodium	49	1.0	50.00	0	98.5	80	120			

Sample ID	LCSD-A	SampType	LCSD	TestCode	EPA Method 6010B: Dissolved Metals					
Client ID	LCSS02	Batch ID	A41828	RunNo	41828					
Prep Date:		Analysis Date:	4/3/2017	SeqNo	1313096	Units	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	51	1.0	50.00	0	101	80	120	1.57	20	
Magnesium	51	1.0	50.00	0	102	80	120	1.96	20	
Potassium	49	1.0	50.00	0	98.7	80	120	1.96	20	
Sodium	50	1.0	50.00	0	100	80	120	2.03	20	

Sample ID	MB-A	SampType	MBLK	TestCode	EPA Method 6010B: Dissolved Metals					
Client ID	PBW	Batch ID	A41865	RunNo	41865					
Prep Date:		Analysis Date:	4/4/2017	SeqNo	1314700	Units	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Sodium	ND	1.0								

Sample ID	LCS-A	SampType	LCS	TestCode	EPA Method 6010B: Dissolved Metals					
Client ID	LCSW	Batch ID	A41865	RunNo	41865					
Prep Date:		Analysis Date:	4/4/2017	SeqNo	1314701	Units	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	54	1.0	50.00	0	109	80	120			
Sodium	52	1.0	50.00	0	104	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1703F54

11-Apr-17

Client: Blagg Engineering

Project: Gutierrez GC B 1

Sample ID	LCSD-A	SampType:	LCSD	TestCode:	EPA Method 6010B: Dissolved Metals					
Client ID:	LCSS02	Batch ID:	A41865	RunNo:	41865					
Prep Date:		Analysis Date:	4/4/2017	SeqNo:	1314702	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	50	1.0	50.00	0	99.3	80	120	9.06	20	
Sodium	49	1.0	50.00	0	98.9	80	120	5.08	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1703F54

11-Apr-17

Client: Blagg Engineering

Project: Gutierrez GC B 1

Sample ID	mb-1	SampType:	mblk	TestCode:	SM2320B: Alkalinity					
Client ID:	PBW	Batch ID:	R41861	RunNo:	41861					
Prep Date:		Analysis Date:	4/3/2017	SeqNo:	1314370	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID	ics-1	SampType:	ics	TestCode:	SM2320B: Alkalinity					
Client ID:	LCSW	Batch ID:	R41861	RunNo:	41861					
Prep Date:		Analysis Date:	4/3/2017	SeqNo:	1314371	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.68	20.00	80.00	0	98.4	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1703F54

11-Apr-17

Client: Blagg Engineering

Project: Gutierrez GC B 1

Sample ID	MB-31115	SampType:	MBLK	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	PBW	Batch ID:	31115	RunNo:	41978					
Prep Date:	4/8/2017	Analysis Date:	4/8/2017	SeqNo:	1318207	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-31115	SampType:	LCS	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	LCSW	Batch ID:	31115	RunNo:	41978					
Prep Date:	4/8/2017	Analysis Date:	4/8/2017	SeqNo:	1318208	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.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified



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: **1703F54**

ReptNo: **1**

Received By: **Lindsay Mangin** 3/31/2017 6:56:00 AM

[Signature]

Completed By: **Lindsay Mangin** 3/31/2017 10:23:07 AM

[Signature]

Reviewed By: *see* 03/31/17

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 *ENM 03/31/17*
- 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? 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? Yes No

of preserved bottles checked for pH: 6
 (<2) >12 unless noted
 Adjusted? YES
 Checked by: ENM

Special Handling (if applicable)

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

Person Notified:	_____	Date	_____
By Whom:	_____	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

- 17. Additional remarks: *For metals analysis poured off from unpreserved 500ml bottles through filter and added 0.4 ml HNO₃ to dissolved metals bottles -001 through -006 for acceptable pH, held for 24 hrs. prior to analysis. -ENM 03/31/17 11:40*
- 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.5	Good	Yes			