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01 May 2020

Steve Moskal
BP America
1199 Main Ave Suite 101
Durango, CO 81303
RE: pH, SAR, EC, B, As

Enclosed are the results of analyses for samples received by the laboratory on 04/24/20 12:50.
If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads 'Debbie Zufelt'. The script is cursive and fluid, with the first name 'Debbie' and last name 'Zufelt' clearly legible.

Debbie Zufelt
Reports Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water.

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8.



BP America
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Project: pH, SAR, EC, B, As
Project Name / Number: Tiffany Gathering
Project Manager: Steve Moskal

Reported:
05/01/20 12:32

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
SS05	2004167-01	Solid	04/24/20 11:05	04/24/20 12:50	
SS06	2004167-02	Solid	04/24/20 11:20	04/24/20 12:50	
SS07	2004167-03	Solid	04/24/20 11:45	04/24/20 12:50	

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Debbie Zufelt, Reports Manager

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Project: pH, SAR, EC, B, As
Project Name / Number: Tiffany Gathering
Project Manager: Steve Moskal

Reported:
05/01/20 12:32

SS05**2004167-01 (Soil)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Saturated Paste Extraction									
Calcium	306	0.200	0.033	mg/L	2	04/30/20 13:13	EPA200.7		AES
Conductivity	1960			umho/cm @ 25.0°C	1	04/28/20 13:40	ASA#9 10-3.3		VJW
Magnesium	46.6	0.200	0.047	mg/L	2	04/29/20 17:27	EPA200.7		AES
pH	4.70			pH Units	1	04/28/20 12:40	ASA#9 12-2.6		VJW
SAR	1.20			No Unit	1	04/29/20 17:26	Calculation		AES
Sodium	85.2	2.00	0.201	mg/L	2	04/29/20 17:26	EPA200.7		AES
Total Metals by ICPMS									
Arsenic	2.74	1.00	0.0807	mg/kg dry	1000	04/29/20 14:09	6020A		AES
Hot Water Extractable									
Boron	<1.20	1.20	0.059	mg/L	4	04/29/20 17:54	EPA200.7		AES

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Reported:
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SS06**2004167-02 (Soil)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Saturated Paste Extraction									
Calcium	197	0.200	0.033	mg/L	2	04/29/20 17:36	EPA200.7		AES
Conductivity	1390			umho/cm @ 25.0°C	1	04/28/20 13:40	ASA#9 10-3.3		VJW
Magnesium	26.8	0.200	0.047	mg/L	2	04/29/20 17:36	EPA200.7		AES
pH	6.85			pH Units	1	04/28/20 12:40	ASA#9 12-2.6		VJW
SAR	1.15			No Unit	1	04/29/20 17:36	Calculation		AES
Sodium	65.0	2.00	0.201	mg/L	2	04/29/20 17:36	EPA200.7		AES
Total Metals by ICPMS									
Arsenic	7.86	1.00	0.0807	mg/kg dry	1000	04/29/20 14:19	6020A		AES
Hot Water Extractable									
Boron	<1.20	1.20	0.059	mg/L	4	04/29/20 17:56	EPA200.7		AES

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Reported:
05/01/20 12:32

SS07**2004167-03 (Soil)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Saturated Paste Extraction

Calcium	48.5	0.100	0.017	mg/L	1	04/29/20 17:39	EPA200.7		AES
Magnesium	10.6	0.100	0.023	mg/L	1	04/29/20 17:39	EPA200.7		AES
SAR	1.01			No Unit	1	04/29/20 17:39	Calculation		AES
Sodium	29.7	1.00	0.101	mg/L	1	04/29/20 17:39	EPA200.7		AES

Total Metals by ICPMS

Arsenic	1.54	1.00	0.0807	mg/kg dry	1000	04/29/20 14:23	6020A		AES
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Saturated Paste Extraction - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B200695 - Paste Extract

Blank (B200695-BLK1)

Prepared: 04/27/20 Analyzed: 04/30/20

Calcium	ND	0.100	mg/L							
Magnesium	ND	0.100	mg/L							
Sodium	ND	1.00	mg/L							

Duplicate (B200695-DUP1)

Source: 2004162-01

Prepared: 04/27/20 Analyzed: 04/30/20

Calcium	183	0.200	mg/L		161			12.9	20	
Magnesium	30.9	0.200	mg/L		27.7			11.0	20	
SAR	0.10		No Unit		0.10			0.00	20	
Sodium	5.60	2.00	mg/L		5.40			3.66	20	

Batch B200696 - Paste Extract

Duplicate (B200696-DUP1)

Source: 2004162-01

Prepared: 04/27/20 Analyzed: 04/28/20

pH	5.18		pH Units		5.08			1.95	20	
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Batch B200697 - Paste Extract

Duplicate (B200697-DUP1)

Source: 2004162-01

Prepared: 04/27/20 Analyzed: 04/28/20

Conductivity	1020		umho/cm @ 25.0°C		913			11.4	20	
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Total Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B200690 - EPA 3050M

Blank (B200690-BLK1)

Prepared: 04/27/20 Analyzed: 04/29/20

Arsenic	ND	0.100	mg/kg dry							
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LCS (B200690-BS1)

Prepared: 04/27/20 Analyzed: 04/29/20

Arsenic	4.63	0.100	mg/kg dry	5.00		92.6	80-120			
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LCS Dup (B200690-BSD1)

Prepared: 04/27/20 Analyzed: 04/29/20

Arsenic	4.76	0.100	mg/kg dry	5.00		95.1	80-120	2.67	20	
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Hot Water Extractable - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B200694 - Hot Water Soluble Metals Extract

Blank (B200694-BLK1)

Prepared: 04/27/20 Analyzed: 04/29/20

Boron ND 1.20 mg/L

Duplicate (B200694-DUP1)

Source: 2004162-01 Prepared: 04/27/20 Analyzed: 04/29/20

Boron 0.708 1.20 mg/L 0.691 2.44 200

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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
*Results reported on as received basis unless designated as dry.
RPD Relative Percent Difference
LCS Laboratory Control Sample (Blank Spike)
RL Report Limit
MDL Method Detection Limit

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† GAL cannot always accept verbal changes. Please fax or email written change requests.