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11 December 2020

Steve Moskal  
BP America  
1199 Main Ave Suite 101  
Durango, CO 81303  
RE: Table 910

Enclosed are the results of analyses for samples received by the laboratory on 11/23/20 15:24. The data to follow was performed, in whole or in part, by a subcontract laboratory with an additional report attached.

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.



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BP America  
1199 Main Ave Suite 101  
Durango CO, 81303

Project: Table 910  
Project Name / Number: Simm E #1 + #3  
Project Manager: Steve Moskal

**Reported:**  
12/11/20 15:26

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
SS05	2011214-01	Solid	11/23/20 14:00	11/23/20 15:24	
SS06	2011214-02	Solid	11/23/20 13:30	11/23/20 15:24	

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BP America  
1199 Main Ave Suite 101  
Durango CO, 81303Project: Table 910  
Project Name / Number: Simm E #1 + #3  
Project Manager: Steve MoskalReported:  
12/11/20 15:26

## SS05

## 2011214-01 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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## General Chemistry

% Dry Solids	78.6			%	1	11/24/20 08:45	EPA160.3/1684		VJW
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## Saturated Paste Extraction

Calcium	95.3	0.200	0.033	mg/L	2	12/07/20 19:20	EPA200.7		AES
Conductivity	995			umho/cm @ 25.0°C	1	12/04/20 16:00	ASA#9 10-3.3		VJW
Magnesium	20.0	0.200	0.047	mg/L	2	12/07/20 19:20	EPA200.7		AES
pH	7.28			pH Units	1	12/04/20 14:20	ASA#9 10-3.2		VJW
SAR	1.30			No Unit	1	12/07/20 19:20	Calculation		AES
Sodium	53.6	2.00	0.201	mg/L	2	12/07/20 19:20	EPA200.7		AES

## Total Metals by ICP

Barium	394	5.00	0.318	mg/kg dry	100	12/07/20 16:27	6010B		AES
Cadmium	<5.00	5.00	0.310	mg/kg dry	100	12/07/20 16:27	6010B		AES
Chromium	17.6	5.00	0.416	mg/kg dry	100	12/07/20 16:27	6010B		AES
Copper	14.4	5.00	1.40	mg/kg dry	100	12/07/20 16:27	6010B		AES
Lead	<10.0	10.0	0.661	mg/kg dry	100	12/07/20 16:27	6010B		AES
Nickel	14.7	5.00	0.507	mg/kg dry	100	12/07/20 16:27	6010B		AES
Selenium	<20.0	20.0	7.60	mg/kg dry	100	12/07/20 16:27	6010B		AES
Silver	<1.00	1.00	0.390	mg/kg dry	100	12/07/20 16:27	6010B		AES
Zinc	47.8	10.0	2.60	mg/kg dry	100	12/07/20 16:27	6010B		AES

## Total Metals by ICPMS

Arsenic	2.17	1.00	0.0807	mg/kg dry	1000	12/08/20 15:47	6020A		AES
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## Total Mercury by CVAA

Mercury	<0.0509	0.0509	0.0030	mg/kg dry	200	12/10/20 16:13	EPA7471		LLG
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## Hot Water Extractable

Boron	<1.20	1.20	0.059	mg/L	4	12/07/20 19:07	EPA200.7		AES
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Reported:  
12/11/20 15:26

## SS05

### 2011214-01 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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### Subcontracted -- Cardinal Laboratories

#### Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050	0.050	0.005	mg/kg	50	12/01/20 01:18	8021B		MS
Toluene*	<0.050	0.050	0.004	mg/kg	50	12/01/20 01:18	8021B		MS
Ethylbenzene*	<0.050	0.050	0.006	mg/kg	50	12/01/20 01:18	8021B		MS
Total Xylenes*	<0.150	0.150	0.013	mg/kg	50	12/01/20 01:18	8021B		MS
Total BTEX	<0.300	0.300	0.018	mg/kg	50	12/01/20 01:18	8021B		MS

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129 12/01/20 01:18 8021B MS

#### Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0	10.0	1.97	mg/kg	1	12/01/20 04:48	8015B		MS
DRO >C10-C28*	<10.0	10.0	2.97	mg/kg	1	12/01/20 04:48	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	2.97	mg/kg	1	12/01/20 04:48	8015B		MS

Surrogate: 1-Chlorooctane 113 % 44.3-144 12/01/20 04:48 8015B MS

Surrogate: 1-Chlorooctadecane 115 % 42.2-156 12/01/20 04:48 8015B MS

#### Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	<0.004	0.040	0.004	mg/kg	40	12/10/20 15:48	8270C		MS
2-Methylnaphthalene*	<0.002	0.040	0.002	mg/kg	40	12/10/20 15:48	8270C		MS
1-Methylnaphthalene	<0.006	0.040	0.006	mg/kg	40	12/10/20 15:48	8270C		MS
Acenaphthylene*	<0.002	0.040	0.002	mg/kg	40	12/10/20 15:48	8270C		MS
Acenaphthene*	<0.003	0.040	0.003	mg/kg	40	12/10/20 15:48	8270C		MS
Fluorene*	<0.003	0.040	0.003	mg/kg	40	12/10/20 15:48	8270C		MS
Phenanthrene*	<0.005	0.040	0.005	mg/kg	40	12/10/20 15:48	8270C		MS
Anthracene*	<0.004	0.040	0.004	mg/kg	40	12/10/20 15:48	8270C		MS
Carbazole*	<0.004	0.040	0.004	mg/kg	40	12/10/20 15:48	8270C		MS
Fluoranthene*	<0.002	0.040	0.002	mg/kg	40	12/10/20 15:48	8270C		MS
Pyrene*	<0.003	0.040	0.003	mg/kg	40	12/10/20 15:48	8270C		MS
Benzo[a]anthracene*	<0.002	0.040	0.002	mg/kg	40	12/10/20 15:48	8270C		MS
Chrysene*	<0.0008	0.040	0.0008	mg/kg	40	12/10/20 15:48	8270C		MS
Benzo[b]fluoranthene*	<0.002	0.040	0.002	mg/kg	40	12/10/20 15:48	8270C		MS
Benzo[k]fluoranthene*	<0.002	0.040	0.002	mg/kg	40	12/10/20 15:48	8270C		MS
Benzo[a]pyrene*	<0.004	0.040	0.004	mg/kg	40	12/10/20 15:48	8270C		MS

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Debbie Zufelt, Reports Manager

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BP America  
1199 Main Ave Suite 101  
Durango CO, 81303

Project: Table 910  
Project Name / Number: Simm E #1 + #3  
Project Manager: Steve Moskal

Reported:  
12/11/20 15:26

**SS05****2011214-01 (Soil)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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**Subcontracted -- Cardinal Laboratories****Polynuclear Aromatic Compounds by GC/MS**

Indeno[1,2,3-cd]pyrene*	<0.003	0.040	0.003	mg/kg	40	12/10/20 15:48	8270C		MS
Dibenz[a,h]anthracene*	<0.004	0.040	0.004	mg/kg	40	12/10/20 15:48	8270C		MS
Benzo[g,h,i]perylene*	<0.004	0.040	0.004	mg/kg	40	12/10/20 15:48	8270C		MS
Surrogate: Nitrobenzene-d5			94.6 %	11.5-118		12/10/20 15:48	8270C		MS
Surrogate: 2-Fluorobiphenyl			103 %	19.4-118		12/10/20 15:48	8270C		MS
Surrogate: Terphenyl-d14			91.9 %	20.1-127		12/10/20 15:48	8270C		MS

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Durango CO, 81303

Project: Table 910  
Project Name / Number: Simm E #1 + #3  
Project Manager: Steve Moskal

Reported:  
12/11/20 15:26

**SS06****2011214-02 (Soil)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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**General Chemistry**

% Dry Solids	84.1			%	1	11/24/20 08:45	EPA160.3/1684		VJW
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**Saturated Paste Extraction**

Calcium	42.7	0.100	0.017	mg/L	1	12/07/20 19:25	EPA200.7		AES
Conductivity	550			umho/cm @ 25.0°C	1	12/04/20 16:00	ASA#9 10-3.3		VJW
Magnesium	9.01	0.100	0.023	mg/L	1	12/07/20 19:25	EPA200.7		AES
pH	7.55			pH Units	1	12/04/20 14:20	ASA#9 10-3.2		VJW
SAR	2.18			No Unit	1	12/07/20 19:25	Calculation		AES
Sodium	60.1	1.00	0.101	mg/L	1	12/07/20 19:25	EPA200.7		AES

**Total Metals by ICP**

Barium	381	5.00	0.318	mg/kg dry	100	12/07/20 16:35	6010B		AES
Cadmium	<5.00	5.00	0.310	mg/kg dry	100	12/07/20 16:35	6010B		AES
Chromium	13.7	5.00	0.416	mg/kg dry	100	12/07/20 16:35	6010B		AES
Copper	11.0	5.00	1.40	mg/kg dry	100	12/07/20 16:35	6010B		AES
Lead	10.3	10.0	0.661	mg/kg dry	100	12/07/20 16:35	6010B		AES
Nickel	12.2	5.00	0.507	mg/kg dry	100	12/07/20 16:35	6010B		AES
Selenium	<20.0	20.0	7.60	mg/kg dry	100	12/07/20 16:35	6010B		AES
Silver	<1.00	1.00	0.390	mg/kg dry	100	12/07/20 16:35	6010B		AES
Zinc	47.2	10.0	2.60	mg/kg dry	100	12/07/20 16:35	6010B		AES

**Total Metals by ICPMS**

Arsenic	1.64	1.00	0.0807	mg/kg dry	1000	12/08/20 15:58	6020A		AES
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**Total Mercury by CVAA**

Mercury	<0.0475	0.0475	0.0028	mg/kg dry	200	12/10/20 16:13	EPA7471		LLG
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**Hot Water Extractable**

Boron	<1.20	1.20	0.059	mg/L	4	12/07/20 19:12	EPA200.7		AES
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Project: Table 910  
Project Name / Number: Simm E #1 + #3  
Project Manager: Steve Moskal

Reported:  
12/11/20 15:26

SS06

2011214-02 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories

Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050	0.050	0.005	mg/kg	50	12/01/20 01:33	8021B		MS
Toluene*	<0.050	0.050	0.004	mg/kg	50	12/01/20 01:33	8021B		MS
Ethylbenzene*	<0.050	0.050	0.006	mg/kg	50	12/01/20 01:33	8021B		MS
Total Xylenes*	<0.150	0.150	0.013	mg/kg	50	12/01/20 01:33	8021B		MS
Total BTEX	<0.300	0.300	0.018	mg/kg	50	12/01/20 01:33	8021B		MS

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129 12/01/20 01:33 8021B MS

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0	10.0	1.97	mg/kg	1	12/01/20 05:11	8015B		MS
DRO >C10-C28*	<10.0	10.0	2.97	mg/kg	1	12/01/20 05:11	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	2.97	mg/kg	1	12/01/20 05:11	8015B		MS

Surrogate: 1-Chlorooctane 114 % 44.3-144 12/01/20 05:11 8015B MS

Surrogate: 1-Chlorooctadecane 117 % 42.2-156 12/01/20 05:11 8015B MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	<0.004	0.040	0.004	mg/kg	40	12/10/20 16:15	8270C		MS
2-Methylnaphthalene*	<0.002	0.040	0.002	mg/kg	40	12/10/20 16:15	8270C		MS
1-Methylnaphthalene	<0.006	0.040	0.006	mg/kg	40	12/10/20 16:15	8270C		MS
Acenaphthylene*	<0.002	0.040	0.002	mg/kg	40	12/10/20 16:15	8270C		MS
Acenaphthene*	<0.003	0.040	0.003	mg/kg	40	12/10/20 16:15	8270C		MS
Fluorene*	<0.003	0.040	0.003	mg/kg	40	12/10/20 16:15	8270C		MS
Phenanthrene*	<0.005	0.040	0.005	mg/kg	40	12/10/20 16:15	8270C		MS
Anthracene*	<0.004	0.040	0.004	mg/kg	40	12/10/20 16:15	8270C		MS
Carbazole*	<0.004	0.040	0.004	mg/kg	40	12/10/20 16:15	8270C		MS
Fluoranthene*	<0.002	0.040	0.002	mg/kg	40	12/10/20 16:15	8270C		MS
Pyrene*	<0.003	0.040	0.003	mg/kg	40	12/10/20 16:15	8270C		MS
Benzo[a]anthracene*	<0.002	0.040	0.002	mg/kg	40	12/10/20 16:15	8270C		MS
Chrysene*	<0.0008	0.040	0.0008	mg/kg	40	12/10/20 16:15	8270C		MS
Benzo[b]fluoranthene*	<0.002	0.040	0.002	mg/kg	40	12/10/20 16:15	8270C		MS
Benzo[k]fluoranthene*	<0.002	0.040	0.002	mg/kg	40	12/10/20 16:15	8270C		MS
Benzo[a]pyrene*	<0.004	0.040	0.004	mg/kg	40	12/10/20 16:15	8270C		MS

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Project: Table 910  
Project Name / Number: Simm E #1 + #3  
Project Manager: Steve Moskal

Reported:  
12/11/20 15:26

**SS06****2011214-02 (Soil)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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**Subcontracted -- Cardinal Laboratories****Polynuclear Aromatic Compounds by GC/MS**

Indeno[1,2,3-cd]pyrene*	<0.003	0.040	0.003	mg/kg	40	12/10/20 16:15	8270C		MS
Dibenz[a,h]anthracene*	<0.004	0.040	0.004	mg/kg	40	12/10/20 16:15	8270C		MS
Benzo[g,h,i]perylene*	<0.004	0.040	0.004	mg/kg	40	12/10/20 16:15	8270C		MS
Surrogate: Nitrobenzene-d5			116 %	11.5-118		12/10/20 16:15	8270C		MS
Surrogate: 2-Fluorobiphenyl			127 %	19.4-118		12/10/20 16:15	8270C	S-04	MS
Surrogate: Terphenyl-d14			109 %	20.1-127		12/10/20 16:15	8270C		MS

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12/11/20 15:26

### General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch B202538 - General Prep - Wet Chem

Duplicate (B202538-DUP2) Source: 2011214-02 Prepared & Analyzed: 11/24/20

% Dry Solids	84.5		%		84.1			0.400	20	
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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 B202616 - Paste Extract

Blank (B202616-BLK1) Prepared: 12/04/20 Analyzed: 12/08/20

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

Duplicate (B202616-DUP1) Source: 2011214-01 Prepared: 12/04/20 Analyzed: 12/07/20

Calcium	91.8	0.200	mg/L		95.3			3.71	20	
Magnesium	19.1	0.200	mg/L		20.0			4.56	20	
SAR	1.29		No Unit		1.30			0.772	20	
Sodium	52.0	2.00	mg/L		53.6			3.12	20	

Reference (B202616-SRM1) Prepared: 12/04/20 Analyzed: 12/07/20

SAR	7.85		No Unit	7.50		105	90-110			
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#### Batch B202617 - Paste Extract

Duplicate (B202617-DUP1) Source: 2011214-01 Prepared & Analyzed: 12/04/20

pH	7.38		pH Units		7.28			1.36	20	
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Reference (B202617-SRM1) Prepared & Analyzed: 12/04/20

pH	8.90		pH Units	9.14		97.4	95-105			
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#### Batch B202619 - Paste Extract

Duplicate (B202619-DUP1) Source: 2011214-01 Prepared & Analyzed: 12/04/20

Conductivity	971		umho/cm @ 25.0°C		995			2.44	20	
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Debbie Zufelt, Reports Manager

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BP America  
1199 Main Ave Suite 101  
Durango CO, 81303

Project: Table 910  
Project Name / Number: Simm E #1 + #3  
Project Manager: Steve Moskal

Reported:  
12/11/20 15:26

### Total Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch B202634 - EPA 3050

##### Blank (B202634-BLK1)

Prepared &amp; Analyzed: 12/07/20

Barium	ND	5.00	mg/kg dry
Cadmium	ND	5.00	mg/kg dry
Chromium	ND	5.00	mg/kg dry
Copper	ND	5.00	mg/kg dry
Lead	ND	10.0	mg/kg dry
Nickel	ND	5.00	mg/kg dry
Selenium	ND	20.0	mg/kg dry
Silver	ND	1.00	mg/kg dry
Zinc	ND	10.0	mg/kg dry

##### LCS (B202634-BS1)

Prepared &amp; Analyzed: 12/07/20

Barium	192	5.00	mg/kg dry	200	95.9	80-120
Cadmium	180	5.00	mg/kg dry	200	90.2	80-120
Chromium	191	5.00	mg/kg dry	200	95.7	80-120
Copper	400	5.00	mg/kg dry	400	100	80-120
Lead	179	10.0	mg/kg dry	200	89.3	80-120
Nickel	181	5.00	mg/kg dry	200	90.5	80-120
Selenium	784	20.0	mg/kg dry	800	98.1	80-120
Silver	9.45	1.00	mg/kg dry	10.0	94.5	80-120
Zinc	170	10.0	mg/kg dry	200	84.8	80-120

##### LCS Dup (B202634-BSD1)

Prepared &amp; Analyzed: 12/07/20

Barium	189	5.00	mg/kg dry	200	94.4	80-120	1.58	20
Cadmium	176	5.00	mg/kg dry	200	88.0	80-120	2.41	20
Chromium	189	5.00	mg/kg dry	200	94.3	80-120	1.51	20
Copper	395	5.00	mg/kg dry	400	98.8	80-120	1.30	20
Lead	180	10.0	mg/kg dry	200	90.1	80-120	0.841	20
Nickel	182	5.00	mg/kg dry	200	90.9	80-120	0.446	20
Selenium	781	20.0	mg/kg dry	800	97.7	80-120	0.380	20
Silver	9.49	1.00	mg/kg dry	10.0	94.9	80-120	0.471	20
Zinc	170	10.0	mg/kg dry	200	85.2	80-120	0.381	20

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BP America  
1199 Main Ave Suite 101  
Durango CO, 81303Project: Table 910  
Project Name / Number: Simm E #1 + #3  
Project Manager: Steve MoskalReported:  
12/11/20 15:26

## 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 B202636 - EPA 3050M

## Blank (B202636-BLK1)

Prepared: 12/07/20 Analyzed: 12/08/20

Arsenic ND 0.100 mg/kg dry

## LCS (B202636-BS1)

Prepared: 12/07/20 Analyzed: 12/08/20

Arsenic 4.74 0.100 mg/kg dry 5.00 94.8 80-120

## LCS Dup (B202636-BSD1)

Prepared: 12/07/20 Analyzed: 12/08/20

Arsenic 4.86 0.100 mg/kg dry 5.00 97.2 80-120 2.49 20

## Total Mercury by CVAA - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Batch B202571 - EPA 7471

## Blank (B202571-BLK1)

Prepared: 12/09/20 Analyzed: 12/10/20

Mercury ND 0.0002 mg/kg wet

## LCS (B202571-BS1)

Prepared: 12/09/20 Analyzed: 12/10/20

Mercury 0.0050 0.0002 mg/kg wet 0.00500 100 85-115

## LCS Dup (B202571-BSD1)

Prepared: 12/09/20 Analyzed: 12/10/20

Mercury 0.0050 0.0002 mg/kg wet 0.00500 100 85-115 0.439 20

## 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 B202575 - Hot Water Soluble Metals Extract

## Blank (B202575-BLK1)

Prepared: 12/01/20 Analyzed: 12/03/20

Boron ND 1.20 mg/L

## Duplicate (B202575-DUP2)

Source: 2011214-01

Prepared: 12/01/20 Analyzed: 12/07/20

Boron 0.474 1.20 mg/L 0.438 7.80 200

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BP America  
1199 Main Ave Suite 101  
Durango CO, 81303

Project: Table 910  
Project Name / Number: Simm E #1 + #3  
Project Manager: Steve Moskal

Reported:  
12/11/20 15:26

### Volatile Organic Compounds by EPA Method 8021 - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 0113006 - Volatiles

##### Blank (0113006-BLK1)

Prepared: 11/30/20 Analyzed: 12/01/20

Surrogate: 4-Bromofluorobenzene (PID)	0.0505		mg/kg	0.0500		101	73.3-129			
Benzene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Total Xylenes	ND	0.150	mg/kg							

##### LCS (0113006-BS1)

Prepared & Analyzed: 11/30/20

Surrogate: 4-Bromofluorobenzene (PID)	0.0486		mg/kg	0.0500		97.2	73.3-129			
Benzene	1.91	0.050	mg/kg	2.00		95.5	72.2-131			
Ethylbenzene	1.90	0.050	mg/kg	2.00		94.9	68.9-126			
Toluene	1.85	0.050	mg/kg	2.00		92.4	71.7-126			
Total Xylenes	5.40	0.150	mg/kg	6.00		89.9	71.4-125			

##### LCS Dup (0113006-BSD1)

Prepared & Analyzed: 11/30/20

Surrogate: 4-Bromofluorobenzene (PID)	0.0493		mg/kg	0.0500		98.6	73.3-129			
Benzene	2.07	0.050	mg/kg	2.00		103	72.2-131	8.05	14.6	
Ethylbenzene	2.06	0.050	mg/kg	2.00		103	68.9-126	8.26	18.9	
Toluene	2.01	0.050	mg/kg	2.00		100	71.7-126	8.39	17.4	
Total Xylenes	5.83	0.150	mg/kg	6.00		97.2	71.4-125	7.73	18.5	

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BP America  
1199 Main Ave Suite 101  
Durango CO, 81303

Project: Table 910  
Project Name / Number: Simm E #1 + #3  
Project Manager: Steve Moskal

Reported:  
12/11/20 15:26

### Petroleum Hydrocarbons by GC FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 0113003 - General Prep - Organics

##### Blank (0113003-BLK1)

Prepared: 11/30/20 Analyzed: 12/01/20

Surrogate: 1-Chlorooctadecane	46.2		mg/kg	50.0		92.4	42.2-156			
Surrogate: 1-Chlorooctane	48.7		mg/kg	50.0		97.3	44.3-144			
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
GRO C6-C10	ND	10.0	mg/kg							

##### LCS (0113003-BS1)

Prepared: 11/30/20 Analyzed: 12/01/20

Surrogate: 1-Chlorooctadecane	54.0		mg/kg	50.0		108	42.2-156			
Surrogate: 1-Chlorooctane	54.2		mg/kg	50.0		108	44.3-144			
DRO >C10-C28	242	10.0	mg/kg	200		121	80-132			
GRO C6-C10	236	10.0	mg/kg	200		118	78.8-127			
Total TPH C6-C28	478	10.0	mg/kg	400		119	81.3-128			

##### LCS Dup (0113003-BSD1)

Prepared: 11/30/20 Analyzed: 12/01/20

Surrogate: 1-Chlorooctadecane	52.9		mg/kg	50.0		106	42.2-156			
Surrogate: 1-Chlorooctane	53.7		mg/kg	50.0		107	44.3-144			
DRO >C10-C28	225	10.0	mg/kg	200		113	80-132	7.34	17.1	
GRO C6-C10	221	10.0	mg/kg	200		111	78.8-127	6.45	15.1	
Total TPH C6-C28	446	10.0	mg/kg	400		112	81.3-128	6.90	15	

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BP America  
1199 Main Ave Suite 101  
Durango CO, 81303Project: Table 910  
Project Name / Number: Simm E #1 + #3  
Project Manager: Steve MoskalReported:  
12/11/20 15:26

## Polynuclear Aromatic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Batch 0120706 - SW846-3510

## Blank (0120706-BLK1)

Prepared: 12/07/20 Analyzed: 12/10/20

1-Methylnaphthalene	ND	0.040	mg/kg							
Surrogate: 2-Fluorobiphenyl	1.78		mg/kg	2.00		88.8	19.4-118			
2-Methylnaphthalene	ND	0.040	mg/kg							
Acenaphthene	ND	0.040	mg/kg							
Acenaphthylene	ND	0.040	mg/kg							
Anthracene	ND	0.040	mg/kg							
Benzo[a]anthracene	ND	0.040	mg/kg							
Benzo[a]pyrene	ND	0.040	mg/kg							
Benzo[b]fluoranthene	ND	0.040	mg/kg							
Benzo[g,h,i]perylene	ND	0.040	mg/kg							
Benzo[k]fluoranthene	ND	0.040	mg/kg							
Carbazole	ND	0.040	mg/kg							
Chrysene	ND	0.040	mg/kg							
Dibenz[a,h]anthracene	ND	0.040	mg/kg							
Fluoranthene	ND	0.040	mg/kg							
Fluorene	ND	0.040	mg/kg							
Indeno[1,2,3-cd]pyrene	ND	0.040	mg/kg							
Naphthalene	ND	0.040	mg/kg							
Surrogate: Nitrobenzene-d5	1.62		mg/kg	2.00		81.1	11.5-118			
Phenanthrene	ND	0.040	mg/kg							
Pyrene	ND	0.040	mg/kg							
Surrogate: Terphenyl-d14	2.18		mg/kg	2.00		109	20.1-127			

## LCS (0120706-BS1)

Prepared: 12/07/20 Analyzed: 12/10/20

1-Methylnaphthalene	0.339	0.040	mg/kg	0.400		84.9	41.5-115			
Surrogate: 2-Fluorobiphenyl	1.62		mg/kg	2.00		80.9	19.4-118			
2-Methylnaphthalene	0.335	0.040	mg/kg	0.400		83.8	41.3-115			
Acenaphthene	0.323	0.040	mg/kg	0.400		80.7	40.8-115			
Acenaphthylene	0.323	0.040	mg/kg	0.400		80.8	39.6-115			
Anthracene	0.317	0.040	mg/kg	0.400		79.2	41.6-116			
Benzo[a]anthracene	0.333	0.040	mg/kg	0.400		83.3	38.1-120			
Benzo[a]pyrene	0.310	0.040	mg/kg	0.400		77.6	43.2-122			
Benzo[b]fluoranthene	0.311	0.040	mg/kg	0.400		77.8	36-129			
Benzo[g,h,i]perylene	0.307	0.040	mg/kg	0.400		76.7	29.6-131			
Benzo[k]fluoranthene	0.305	0.040	mg/kg	0.400		76.3	40.9-123			
Carbazole	0.327	0.040	mg/kg	0.400		81.8	41.3-117			
Chrysene	0.335	0.040	mg/kg	0.400		83.7	39.4-118			
Dibenz[a,h]anthracene	0.318	0.040	mg/kg	0.400		79.5	37-123			
Fluoranthene	0.332	0.040	mg/kg	0.400		83.0	42.5-116			

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BP America  
1199 Main Ave Suite 101  
Durango CO, 81303Project: Table 910  
Project Name / Number: Simm E #1 + #3  
Project Manager: Steve MoskalReported:  
12/11/20 15:26Polynuclear Aromatic Compounds by GC/MS - Quality Control  
(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Batch 0120706 - SW846-3510 (Continued)

## LCS (0120706-BS1) (Continued)

Prepared: 12/07/20 Analyzed: 12/10/20

Fluorene	0.345	0.040	mg/kg	0.400		86.2	40.8-115			
Indeno[1,2,3-cd]pyrene	0.324	0.040	mg/kg	0.400		80.9	40.5-121			
Naphthalene	0.323	0.040	mg/kg	0.400		80.8	37.2-118			
Surrogate: Nitrobenzene-d5	1.56		mg/kg	2.00		78.1	11.5-118			
Phenanthrene	0.321	0.040	mg/kg	0.400		80.3	41.6-117			
Pyrene	0.336	0.040	mg/kg	0.400		84.0	38.2-121			
Surrogate: Terphenyl-d14	1.74		mg/kg	2.00		87.2	20.1-127			

## LCS Dup (0120706-BS1)

Prepared: 12/07/20 Analyzed: 12/10/20

1-Methylnaphthalene	0.340	0.040	mg/kg	0.400		84.9	41.5-115	0.0471	5.67	
Surrogate: 2-Fluorobiphenyl	1.65		mg/kg	2.00		82.3	19.4-118			
2-Methylnaphthalene	0.328	0.040	mg/kg	0.400		82.1	41.3-115	2.04	5.43	
Acenaphthene	0.337	0.040	mg/kg	0.400		84.2	40.8-115	4.15	5.45	
Acenaphthylene	0.328	0.040	mg/kg	0.400		81.9	39.6-115	1.33	4.49	
Anthracene	0.314	0.040	mg/kg	0.400		78.4	41.6-116	0.939	3.74	
Benzo[a]anthracene	0.306	0.040	mg/kg	0.400		76.4	38.1-120	8.65	3.05	QR-02
Benzo[a]pyrene	0.312	0.040	mg/kg	0.400		78.1	43.2-122	0.623	3.42	
Benzo[b]fluoranthene	0.314	0.040	mg/kg	0.400		78.4	36-129	0.884	32.9	
Benzo[g,h,i]perylene	0.302	0.040	mg/kg	0.400		75.5	29.6-131	1.53	6.1	
Benzo[k]fluoranthene	0.322	0.040	mg/kg	0.400		80.4	40.9-123	5.23	6.97	
Carbazole	0.323	0.040	mg/kg	0.400		80.9	41.3-117	1.09	5.33	
Chrysene	0.299	0.040	mg/kg	0.400		74.8	39.4-118	11.2	2.77	QR-02
Dibenz[a,h]anthracene	0.304	0.040	mg/kg	0.400		76.0	37-123	4.50	5.52	
Fluoranthene	0.323	0.040	mg/kg	0.400		80.8	42.5-116	2.77	6.41	
Fluorene	0.332	0.040	mg/kg	0.400		82.9	40.8-115	3.86	5.01	
Indeno[1,2,3-cd]pyrene	0.320	0.040	mg/kg	0.400		79.9	40.5-121	1.30	4.92	
Naphthalene	0.324	0.040	mg/kg	0.400		81.1	37.2-118	0.374	4.51	
Surrogate: Nitrobenzene-d5	1.58		mg/kg	2.00		79.2	11.5-118			
Phenanthrene	0.317	0.040	mg/kg	0.400		79.2	41.6-117	1.34	4.53	
Pyrene	0.309	0.040	mg/kg	0.400		77.3	38.2-121	8.34	8.61	
Surrogate: Terphenyl-d14	1.67		mg/kg	2.00		83.5	20.1-127			

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BP America  
1199 Main Ave Suite 101  
Durango CO, 81303

Project: Table 910  
Project Name / Number: Simm E #1 + #3  
Project Manager: Steve Moskal

**Reported:**  
12/11/20 15:26

### Notes and Definitions

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.

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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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: BP America Production Co.

Project Manager: Steve Moskal

Address: 1199 Main Ave Suite 101

City: Durango

State: CO Zip: 81301

Phone #: (505) 330 9179 Email: steven.moskal@bpx.com

Additional Report To:

Project Name: Simms E #1 & #3

Project Number:

Sampler Name (Print): Kyle Sresser

FOR LAB USE ONLY

Bill to (if different):

P.O. #:

Company:

Attn:

Address:

City:

State:

Zip:

Phone #:

Fax or Email:

ANALYSIS REQUEST

Project Manager: Steve Moskal										P.O. #:	
Address: 1199 Main Ave Suite 101										Company:	
City: Durango										Attn:	
State: CO										Address:	
Zip: 81301										City:	
Phone #: (505) 330 9179										State:	
Email: steven.moskal@bpx.com										Zip:	
Additional Report To:										Phone #:	
Project Name:										Fax or Email:	
Project Number:										Matrix (check one)	
Sample Name (Print): Kyle Siesser										# of containers	
FOR LAB USE ONLY											
Lab I.D.											
Sample Name or Location											
Collected											
Date											
Time											
GROUNDWATER											
SURFACEWATER											
WASTEWATER											
PRODUCEDWATER											
SOIL											
OTHER :											
No preservation (general)											
HNO <sup>3</sup>											
HCl											
H <sub>2</sub> SO <sub>4</sub>											
Other:											
Other:											
2011-21401										XX	
-02										COGCC Table 910-1	
SS05											
SS06											
11/23/20											
11/23/20											
1400											
1330											