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23 June 2016

Andy Hawk
BP America
380 Airport Rd.
Durango, CO 81303
RE: Table 910

Enclosed are the results of analyses for samples received by the laboratory on 06/09/16 13:15.
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
380 Airport Rd.
Durango CO, 81303

Project: Table 910
Project Name / Number: Bird Farm Riser
Project Manager: Andy Hawk

Reported:
06/23/16 16:21

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS01	1606107-01	Solid	06/08/16 15:40	06/09/16 13:15
SS02	1606107-02	Solid	06/08/16 15:40	06/09/16 13:15

Green Analytical Laboratories

A handwritten signature in black ink that reads 'Debbie Zufelt'.

Debbie Zufelt, Reports Manager

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BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: Bird Farm Riser
Project Manager: Andy HawkReported:
06/23/16 16:21

SS01

1606107-01 (Solid)

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

% Dry Solids	84.3			%	1	06/15/16	ASA#9 & SSSA#5		LLG
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Saturated Paste Extraction

Calcium	48.1	10.0	0.039	mg/L	10	06/22/16	EPA200.7		JLM
Conductivity	500			umhos/cm	1	06/21/16	ASA#9 10-3.3		BDV
Magnesium	<10.0	10.0	0.190	mg/L	10	06/22/16	EPA200.7		JLM
pH	7.95			pH Units	1	06/21/16	ASA#9 12-2.6		BDV
SAR	2.51			No Unit	1	06/22/16	Calculation		JLM
Sodium	71.8	20.0	0.041	mg/L	10	06/22/16	EPA200.7		JLM

Total Metals by ICP

Barium	216	1.00	0.191	mg/kg dry	100	06/20/16	EPA6010 B		JLM
Cadmium	<5.00	5.00	0.117	mg/kg dry	100	06/20/16	EPA6010 B		JLM
Chromium	10.2	5.00	0.636	mg/kg dry	100	06/20/16	EPA6010 B		JLM
Copper	4.28	2.00	0.650	mg/kg dry	100	06/20/16	EPA6010 B		JLM
Lead	13.8	10.0	1.84	mg/kg dry	100	06/20/16	EPA6010 B		JLM
Nickel	11.5	5.00	1.55	mg/kg dry	100	06/20/16	EPA6010 B		JLM
Selenium	<20.0	20.0	3.61	mg/kg dry	100	06/20/16	EPA6010 B		JLM
Silver	<5.00	5.00	0.231	mg/kg dry	100	06/20/16	EPA6010 B		JLM
Zinc	34.5	5.00	0.792	mg/kg dry	100	06/20/16	EPA6010 B		JLM

Dissolved Metals by ICP

Boron	<0.600	0.600	0.105	mg/L	2	06/22/16	EPA200.7		JLM
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Total Metals by ICPMS

Arsenic	2.83	0.500	0.260	mg/kg dry	1000	06/21/16	6020 A		JLM
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Debbie Zufelt, Reports Manager

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380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: Bird Farm Riser
Project Manager: Andy HawkReported:
06/23/16 16:21

SS01

1606107-01 (Solid)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Total Mercury by CVAA

Mercury	<0.119	0.119	0.0128	mg/kg dry	500	06/17/16	EPA7471		LLG
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Subcontracted -- Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10	<10.0	10.0	2.59	mg/kg	1	06/10/16	8015B		CK
DRO >C10-C28	<10.0	10.0	5.51	mg/kg	1	06/10/16	8015B		CK
EXT DRO >C28-C35	<10.0	10.0	5.51	mg/kg	1	06/10/16	8015B		CK

Surrogate: 1-Chlorooctane

82.3 % 35-147

06/10/16

8015B

CK

Surrogate: 1-Chlorooctadecane

88.8 % 28-171

06/10/16

8015B

CK

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.050	0.050	0.010	mg/kg	50	06/13/16	8260B		CK
Toluene*	0.393	0.050	0.013	mg/kg	50	06/13/16	8260B		CK
Ethylbenzene*	<0.050	0.050	0.008	mg/kg	50	06/13/16	8260B		CK
Total Xylenes*	<0.150	0.150	0.014	mg/kg	50	06/13/16	8260B		CK
Total BTEX	0.393	0.300	0.044	mg/kg	50	06/13/16	8260B		CK

Surrogate: Dibromofluoromethane

105 % 90.4-111

06/13/16

8260B

CK

Surrogate: Toluene-d8

90.0 % 85.3-114

06/13/16

8260B

CK

Surrogate: 4-Bromofluorobenzene

107 % 80.1-121

06/13/16

8260B

CK

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BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910
Project Name / Number: Bird Farm Riser
Project Manager: Andy Hawk

Reported:
06/23/16 16:21

SS01

1606107-01 (Solid)

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

Semivolatile Organic Compounds by GCMS

Naphthalene	<0.002	0.040	0.002	mg/kg	40	06/13/16	8270C		ms
2-Methylnaphthalene	<0.003	0.040	0.003	mg/kg	40	06/13/16	8270C		ms
1-Methylnaphthalene	<0.001	0.020	0.001	mg/kg	40	06/13/16	8270C		ms
Acenaphthylene	<0.003	0.040	0.003	mg/kg	40	06/13/16	8270C		ms
Acenaphthene	<0.003	0.040	0.003	mg/kg	40	06/13/16	8270C		ms
Fluorene	<0.003	0.040	0.003	mg/kg	40	06/13/16	8270C		ms
Phenanthrene	<0.006	0.040	0.006	mg/kg	40	06/13/16	8270C		ms
Anthracene	<0.003	0.040	0.003	mg/kg	40	06/13/16	8270C		ms
Carbazole	<0.004	0.040	0.004	mg/kg	40	06/13/16	8270C		ms
Fluoranthene	<0.007	0.040	0.007	mg/kg	40	06/13/16	8270C		ms
Pyrene	<0.003	0.040	0.003	mg/kg	40	06/13/16	8270C		ms
Benzo[a]anthracene	<0.016	0.040	0.016	mg/kg	40	06/13/16	8270C		ms
Chrysene	0.003	0.040	0.003	mg/kg	40	06/13/16	8270C	J	ms
Benzo[b]fluoranthene	0.009	0.040	0.003	mg/kg	40	06/13/16	8270C	J	ms
Benzo[k]fluoranthene	0.014	0.040	0.004	mg/kg	40	06/13/16	8270C	J	ms
Benzo[a]pyrene	0.008	0.040	0.003	mg/kg	40	06/13/16	8270C	J	ms
Indeno[1,2,3-cd]pyrene	0.015	0.040	0.003	mg/kg	40	06/13/16	8270C	J	ms
Dibenz[a,h]anthracene	0.016	0.040	0.003	mg/kg	40	06/13/16	8270C	J	ms
Benzo[g,h,i]perylene	<0.030	0.040	0.030	mg/kg	40	06/13/16	8270C		ms

Surrogate: Nitrobenzene-d5	151 %	36.9-116		06/13/16	8270C	S-BN	ms
Surrogate: 2-Fluorobiphenyl	124 %	29.5-132		06/13/16	8270C		ms
Surrogate: Terphenyl-d14	90.3 %	35.1-158		06/13/16	8270C		ms

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BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: Bird Farm Riser
Project Manager: Andy HawkReported:
06/23/16 16:21

SS02

1606107-02 (Solid)

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

% Dry Solids	96.8			%	1	06/15/16	ASA#9 & SSSA#5		LLG
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Saturated Paste Extraction

Calcium	67.5	10.0	0.039	mg/L	10	06/22/16	EPA200.7		JLM
Conductivity	490			umhos/cm	1	06/21/16	ASA#9 10-3.3		BDV
Magnesium	13.8	10.0	0.190	mg/L	10	06/22/16	EPA200.7		JLM
pH	7.95			pH Units	1	06/21/16	ASA#9 12-2.6		BDV
SAR	1.01			No Unit	1	06/22/16	Calculation		JLM
Sodium	34.7	20.0	0.041	mg/L	10	06/22/16	EPA200.7		JLM

Total Metals by ICP

Barium	199	1.00	0.191	mg/kg dry	100	06/20/16	EPA6010 B		JLM
Cadmium	<5.00	5.00	0.117	mg/kg dry	100	06/20/16	EPA6010 B		JLM
Chromium	14.3	5.00	0.636	mg/kg dry	100	06/20/16	EPA6010 B		JLM
Copper	6.84	2.00	0.650	mg/kg dry	100	06/20/16	EPA6010 B		JLM
Lead	16.2	10.0	1.84	mg/kg dry	100	06/20/16	EPA6010 B		JLM
Nickel	15.4	5.00	1.55	mg/kg dry	100	06/20/16	EPA6010 B		JLM
Selenium	<20.0	20.0	3.61	mg/kg dry	100	06/20/16	EPA6010 B		JLM
Silver	<5.00	5.00	0.231	mg/kg dry	100	06/20/16	EPA6010 B		JLM
Zinc	45.5	5.00	0.792	mg/kg dry	100	06/20/16	EPA6010 B		JLM

Dissolved Metals by ICP

Boron	<0.600	0.600	0.105	mg/L	2	06/22/16	EPA200.7		JLM
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Total Metals by ICPMS

Arsenic	3.96	0.500	0.260	mg/kg dry	1000	06/21/16	6020 A		JLM
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BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: Bird Farm Riser
Project Manager: Andy HawkReported:
06/23/16 16:21

SS02

1606107-02 (Solid)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Total Mercury by CVAA

Mercury	<0.103	0.103	0.0112	mg/kg dry	500	06/17/16	EPA7471		LLG
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Subcontracted -- Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10	<10.0	10.0	2.59	mg/kg	1	06/10/16	8015B		CK
DRO >C10-C28	<10.0	10.0	5.51	mg/kg	1	06/10/16	8015B		CK
EXT DRO >C28-C35	<10.0	10.0	5.51	mg/kg	1	06/10/16	8015B		CK

Surrogate: 1-Chlorooctane

90.8 % 35-147

06/10/16

8015B

CK

Surrogate: 1-Chlorooctadecane

88.7 % 28-171

06/10/16

8015B

CK

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.050	0.050	0.010	mg/kg	50	06/13/16	8260B		CK
Toluene*	0.629	0.050	0.013	mg/kg	50	06/13/16	8260B		CK
Ethylbenzene*	<0.050	0.050	0.008	mg/kg	50	06/13/16	8260B		CK
Total Xylenes*	<0.150	0.150	0.014	mg/kg	50	06/13/16	8260B		CK
Total BTEX	0.629	0.300	0.044	mg/kg	50	06/13/16	8260B		CK

Surrogate: Dibromofluoromethane

105 % 90.4-111

06/13/16

8260B

CK

Surrogate: Toluene-d8

92.9 % 85.3-114

06/13/16

8260B

CK

Surrogate: 4-Bromofluorobenzene

105 % 80.1-121

06/13/16

8260B

CK

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BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: Bird Farm Riser
Project Manager: Andy HawkReported:
06/23/16 16:21

SS02

1606107-02 (Solid)

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

Semivolatile Organic Compounds by GCMS

Naphthalene	<0.002	0.040	0.002	mg/kg	40	06/13/16	8270C		ms
2-Methylnaphthalene	<0.003	0.040	0.003	mg/kg	40	06/13/16	8270C		ms
1-Methylnaphthalene	<0.001	0.020	0.001	mg/kg	40	06/13/16	8270C		ms
Acenaphthylene	<0.003	0.040	0.003	mg/kg	40	06/13/16	8270C		ms
Acenaphthene	<0.003	0.040	0.003	mg/kg	40	06/13/16	8270C		ms
Fluorene	<0.003	0.040	0.003	mg/kg	40	06/13/16	8270C		ms
Phenanthrene	<0.006	0.040	0.006	mg/kg	40	06/13/16	8270C		ms
Anthracene	<0.003	0.040	0.003	mg/kg	40	06/13/16	8270C		ms
Carbazole	<0.004	0.040	0.004	mg/kg	40	06/13/16	8270C		ms
Fluoranthene	<0.007	0.040	0.007	mg/kg	40	06/13/16	8270C		ms
Pyrene	<0.003	0.040	0.003	mg/kg	40	06/13/16	8270C		ms
Benzo[a]anthracene	<0.016	0.040	0.016	mg/kg	40	06/13/16	8270C		ms
Chrysene	<0.003	0.040	0.003	mg/kg	40	06/13/16	8270C		ms
Benzo[b]fluoranthene	<0.003	0.040	0.003	mg/kg	40	06/13/16	8270C		ms
Benzo[k]fluoranthene	<0.004	0.040	0.004	mg/kg	40	06/13/16	8270C		ms
Benzo[a]pyrene	0.005	0.040	0.003	mg/kg	40	06/13/16	8270C	J	ms
Indeno[1,2,3-cd]pyrene	<0.003	0.040	0.003	mg/kg	40	06/13/16	8270C		ms
Dibenz[a,h]anthracene	<0.003	0.040	0.003	mg/kg	40	06/13/16	8270C		ms
Benzo[g,h,i]perylene	<0.030	0.040	0.030	mg/kg	40	06/13/16	8270C		ms
Surrogate: Nitrobenzene-d5			158 %	36.9-116		06/13/16	8270C	S-BN	ms
Surrogate: 2-Fluorobiphenyl			125 %	29.5-132		06/13/16	8270C		ms
Surrogate: Terphenyl-d14			87.0 %	35.1-158		06/13/16	8270C		ms

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

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dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910
Project Name / Number: Bird Farm Riser
Project Manager: Andy Hawk

Reported:
06/23/16 16:21

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 B606137 - General Prep - Wet Chem

Duplicate (B606137-DUP1) Source: 1606107-01 Prepared & Analyzed: 06/15/16

% Dry Solids	82.2		%		84.3			2.61	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 B606186 - General Prep - Wet Chem

Duplicate (B606186-DUP1) Source: 1606149-04 Prepared & Analyzed: 06/21/16

pH	2.93		pH Units		2.96			1.02	20	
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Batch B606187 - General Prep - Wet Chem

Duplicate (B606187-DUP1) Source: 1606149-04 Prepared & Analyzed: 06/21/16

Conductivity	13000		umhos/cm		13200			1.07	20	
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Batch B606194 - Paste Extract

Blank (B606194-BLK1) Prepared & Analyzed: 06/22/16

Calcium	ND	1.00	mg/L							
Magnesium	ND	1.00	mg/L							
Sodium	3.06	2.00	mg/L							

Duplicate (B606194-DUP1) Source: 1606149-04 Prepared & Analyzed: 06/22/16

Calcium	475	10.0	mg/L		469			1.19	20	
Magnesium	1520	10.0	mg/L		1560			2.67	20	
Sodium	13.1	20.0	mg/L		14.7			12.1	20	

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BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910
Project Name / Number: Bird Farm Riser
Project Manager: Andy Hawk

Reported:
06/23/16 16:21

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 B606180 - EPA 3050

Blank (B606180-BLK1)

Prepared: 06/20/16 Analyzed: 06/21/16

Barium	ND	0.010	mg/kg dry
Cadmium	ND	0.050	mg/kg dry
Chromium	ND	0.050	mg/kg dry
Copper	ND	0.020	mg/kg dry
Lead	ND	0.100	mg/kg dry
Nickel	ND	0.050	mg/kg dry
Selenium	ND	0.200	mg/kg dry
Silver	ND	0.050	mg/kg dry
Zinc	ND	0.050	mg/kg dry

LCS (B606180-BS1)

Prepared: 06/20/16 Analyzed: 06/21/16

Barium	1.97	0.010	mg/kg dry	2.00	98.3	85-115
Cadmium	1.90	0.050	mg/kg dry	2.00	95.1	85-115
Chromium	1.98	0.050	mg/kg dry	2.00	98.8	85-115
Copper	3.99	0.020	mg/kg dry	4.00	99.7	85-115
Lead	1.86	0.100	mg/kg dry	2.00	92.9	85-115
Nickel	1.91	0.050	mg/kg dry	2.00	95.5	85-115
Selenium	8.04	0.200	mg/kg dry	8.00	100	85-115
Silver	0.094	0.050	mg/kg dry	0.100	94.2	85-115
Zinc	1.83	0.050	mg/kg dry	2.00	91.4	85-115

LCS Dup (B606180-BSD1)

Prepared: 06/20/16 Analyzed: 06/21/16

Barium	1.97	0.010	mg/kg dry	2.00	98.3	85-115	0.0108	20
Cadmium	1.89	0.050	mg/kg dry	2.00	94.5	85-115	0.589	20
Chromium	1.98	0.050	mg/kg dry	2.00	98.9	85-115	0.0913	20
Copper	3.97	0.020	mg/kg dry	4.00	99.2	85-115	0.549	20
Lead	1.86	0.100	mg/kg dry	2.00	92.8	85-115	0.119	20
Nickel	1.90	0.050	mg/kg dry	2.00	95.1	85-115	0.433	20
Selenium	7.92	0.200	mg/kg dry	8.00	99.0	85-115	1.45	20
Silver	0.094	0.050	mg/kg dry	0.100	93.7	85-115	0.593	20
Zinc	1.82	0.050	mg/kg dry	2.00	91.2	85-115	0.170	20

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Debbie Zufelt, Reports Manager

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BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910
Project Name / Number: Bird Farm Riser
Project Manager: Andy Hawk

Reported:
06/23/16 16:21

Dissolved 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 B606195 - Hot Water Soluble Metals Extract

Blank (B606195-BLK1)

Prepared & Analyzed: 06/22/16

Boron	ND	0.300	mg/L							
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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 B606166 - EPA 3050M

Blank (B606166-BLK1)

Prepared: 06/17/16 Analyzed: 06/21/16

Arsenic	ND	0.0005	mg/kg dry							
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LCS (B606166-BS1)

Prepared: 06/17/16 Analyzed: 06/21/16

Arsenic	0.0435	0.0005	mg/kg dry	0.0500		87.1	85-115			
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LCS Dup (B606166-BSD1)

Prepared: 06/17/16 Analyzed: 06/21/16

Arsenic	0.0442	0.0005	mg/kg dry	0.0500		88.4	85-115	1.51	20	
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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 B606156 - EPA 245.1/7470

Blank (B606156-BLK1)

Prepared & Analyzed: 06/17/16

Mercury	ND	0.0002	mg/kg wet							
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LCS (B606156-BS1)

Prepared & Analyzed: 06/17/16

Mercury	0.0019	0.0002	mg/kg wet	0.00200		95.4	85-115			
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LCS Dup (B606156-BSD1)

Prepared & Analyzed: 06/17/16

Mercury	0.0019	0.0002	mg/kg wet	0.00200		97.3	85-115	1.97	20	
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Debbie Zufelt, Reports Manager

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BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: Bird Farm Riser
Project Manager: Andy HawkReported:
06/23/16 16:21

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 6061001 - General Prep - Organics

Blank (6061001-BLK1)

Prepared & Analyzed: 06/10/16

Surrogate: 1-Chlorooctadecane	43.1		mg/kg	50.0		86.1	28-171			
Surrogate: 1-Chlorooctane	38.2		mg/kg	50.0		76.5	35-147			
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C35	ND	10.0	mg/kg							
GRO C6-C10	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							

LCS (6061001-BS1)

Prepared & Analyzed: 06/10/16

Surrogate: 1-Chlorooctadecane	51.4		mg/kg	50.0		103	28-171			
Surrogate: 1-Chlorooctane	50.8		mg/kg	50.0		102	35-147			
DRO >C10-C28	220	10.0	mg/kg	200		110	78.3-122			
GRO C6-C10	208	10.0	mg/kg	200		104	76.7-115			
Total TPH C6-C28	428	10.0	mg/kg	400		107	79.8-117			

LCS Dup (6061001-BSD1)

Prepared & Analyzed: 06/10/16

Surrogate: 1-Chlorooctadecane	48.2		mg/kg	50.0		96.4	28-171			
Surrogate: 1-Chlorooctane	48.7		mg/kg	50.0		97.4	35-147			
DRO >C10-C28	211	10.0	mg/kg	200		106	78.3-122	4.21	13.2	
GRO C6-C10	201	10.0	mg/kg	200		101	76.7-115	3.15	9.42	
Total TPH C6-C28	413	10.0	mg/kg	400		103	79.8-117	3.69	10.7	

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BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: Bird Farm Riser
Project Manager: Andy HawkReported:
06/23/16 16:21

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6061002 - Volatiles

Blank (6061002-BLK1)

Prepared & Analyzed: 06/13/16

Surrogate: 4-Bromofluorobenzene	0.505		mg/kg	0.500		101	80.1-121			
Benzene	ND	0.050	mg/kg							
Surrogate: Dibromofluoromethane	0.529		mg/kg	0.500		106	90.4-111			
Ethylbenzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Surrogate: Toluene-d8	0.464		mg/kg	0.500		92.8	85.3-114			
Total BTEX	ND	0.300	mg/kg							
Total Xylenes	ND	0.150	mg/kg							

LCS (6061002-BS1)

Prepared & Analyzed: 06/13/16

Surrogate: 4-Bromofluorobenzene	0.539		mg/kg	0.500		108	80.1-121			
Benzene	2.08	0.050	mg/kg	2.00		104	75.1-126			
Surrogate: Dibromofluoromethane	0.521		mg/kg	0.500		104	90.4-111			
Ethylbenzene	1.95	0.050	mg/kg	2.00		97.3	80.2-118			
m+p - Xylene	4.28	0.100	mg/kg	4.00		107	83-124			
o-Xylene	2.21	0.050	mg/kg	2.00		111	84.7-121			
Toluene	1.98	0.050	mg/kg	2.00		99.1	71.7-121			
Surrogate: Toluene-d8	0.460		mg/kg	0.500		92.1	85.3-114			
Total Xylenes	6.50	0.150	mg/kg	6.00		108	84.1-122			

LCS Dup (6061002-BSD1)

Prepared & Analyzed: 06/13/16

Surrogate: 4-Bromofluorobenzene	0.543		mg/kg	0.500		109	80.1-121			
Benzene	2.08	0.050	mg/kg	2.00		104	75.1-126	0.133	15.7	
Surrogate: Dibromofluoromethane	0.519		mg/kg	0.500		104	90.4-111			
Ethylbenzene	1.98	0.050	mg/kg	2.00		99.0	80.2-118	1.78	14.1	
m+p - Xylene	4.38	0.100	mg/kg	4.00		109	83-124	2.23	14.6	
o-Xylene	2.27	0.050	mg/kg	2.00		113	84.7-121	2.49	14	
Toluene	2.02	0.050	mg/kg	2.00		101	71.7-121	1.88	14.4	
Surrogate: Toluene-d8	0.463		mg/kg	0.500		92.6	85.3-114			
Total Xylenes	6.65	0.150	mg/kg	6.00		111	84.1-122	2.32	14.1	

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BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910
Project Name / Number: Bird Farm Riser
Project Manager: Andy Hawk

Reported:
06/23/16 16:21

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6053105 - SW-846 3550

Blank (6053105-BLK1)

Prepared: 06/06/16 Analyzed: 06/13/16

1-Methylnaphthalene	ND	0.020	mg/kg							
Surrogate: 2-Fluorobiphenyl	1.94		mg/kg	2.00		96.9	29.5-132			
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	0.007	0.040	mg/kg							J
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	2.09		mg/kg	2.00		105	36.9-116			
Phenanthrene	ND	0.040	mg/kg							
Pyrene	ND	0.040	mg/kg							
Surrogate: Terphenyl-d14	2.04		mg/kg	2.00		102	35.1-158			

LCS (6053105-BS1)

Prepared: 06/06/16 Analyzed: 06/13/16

Surrogate: 2-Fluorobiphenyl	1.65		mg/kg	2.00		82.6	29.5-132			
2-Methylnaphthalene	0.291	0.040	mg/kg	0.400		72.8	38.9-112			
Acenaphthene	0.272	0.040	mg/kg	0.400		68.0	38.4-113			
Acenaphthylene	0.264	0.040	mg/kg	0.400		66.1	40.8-111			
Anthracene	0.281	0.040	mg/kg	0.400		70.1	40.3-118			
Benzo[a]anthracene	0.279	0.040	mg/kg	0.400		69.7	43.9-111			
Benzo[a]pyrene	0.265	0.040	mg/kg	0.400		66.4	41.6-117			
Benzo[b]fluoranthene	0.266	0.040	mg/kg	0.400		66.6	33.1-123			
Benzo[g,h,i]perylene	0.291	0.040	mg/kg	0.400		72.7	31.4-115			
Benzo[k]fluoranthene	0.285	0.040	mg/kg	0.400		71.3	37.5-124			
Carbazole	0.311	0.040	mg/kg	0.400		77.8	33-126			
Chrysene	0.287	0.040	mg/kg	0.400		71.7	44.4-111			
Dibenz[a,h]anthracene	0.288	0.040	mg/kg	0.400		72.0	40-113			
Fluoranthene	0.299	0.040	mg/kg	0.400		74.9	32.8-127			
Fluorene	0.298	0.040	mg/kg	0.400		74.4	35.2-119			

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BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910
Project Name / Number: Bird Farm Riser
Project Manager: Andy HawkReported:
06/23/16 16:21Semivolatile Organic Compounds by GCMS - Quality Control
(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6053105 - SW-846 3550 (Continued)

LCS (6053105-BS1) (Continued)

Prepared: 06/06/16 Analyzed: 06/13/16

Indeno[1,2,3-cd]pyrene	0.284	0.040	mg/kg	0.400		71.1	35.7-115			
Naphthalene	0.243	0.040	mg/kg	0.400		60.7	44.7-98			
Surrogate: Nitrobenzene-d5	1.78		mg/kg	2.00		89.0	36.9-116			
Phenanthrene	0.288	0.040	mg/kg	0.400		72.0	38.1-123			
Pyrene	0.277	0.040	mg/kg	0.400		69.2	39.4-120			
Surrogate: Terphenyl-d14	1.66		mg/kg	2.00		83.2	35.1-158			

LCS Dup (6053105-BS1)

Prepared: 06/06/16 Analyzed: 06/13/16

Surrogate: 2-Fluorobiphenyl	1.65		mg/kg	2.00		82.3	29.5-132			
2-Methylnaphthalene	0.293	0.040	mg/kg	0.400		73.3	38.9-112	0.729	15.5	
Acenaphthene	0.270	0.040	mg/kg	0.400		67.4	38.4-113	0.882	9.34	
Acenaphthylene	0.269	0.040	mg/kg	0.400		67.3	40.8-111	1.74	14.2	
Anthracene	0.286	0.040	mg/kg	0.400		71.6	40.3-118	2.02	18.3	
Benzo[a]anthracene	0.277	0.040	mg/kg	0.400		69.3	43.9-111	0.536	4.96	
Benzo[a]pyrene	0.266	0.040	mg/kg	0.400		66.6	41.6-117	0.290	7.25	
Benzo[b]fluoranthene	0.264	0.040	mg/kg	0.400		65.9	33.1-123	0.981	24.2	
Benzo[g,h,i]perylene	0.295	0.040	mg/kg	0.400		73.7	31.4-115	1.27	12.4	
Benzo[k]fluoranthene	0.285	0.040	mg/kg	0.400		71.2	37.5-124	0.232	23.1	
Carbazole	0.313	0.040	mg/kg	0.400		78.4	33-126	0.769	25.3	
Chrysene	0.286	0.040	mg/kg	0.400		71.5	44.4-111	0.297	4.96	
Dibenz[a,h]anthracene	0.286	0.040	mg/kg	0.400		71.6	40-113	0.623	12.1	
Fluoranthene	0.302	0.040	mg/kg	0.400		75.4	32.8-127	0.752	19.6	
Fluorene	0.296	0.040	mg/kg	0.400		74.1	35.2-119	0.377	12.6	
Indeno[1,2,3-cd]pyrene	0.281	0.040	mg/kg	0.400		70.3	35.7-115	1.01	12.7	
Naphthalene	0.246	0.040	mg/kg	0.400		61.4	44.7-98	1.13	9.54	
Surrogate: Nitrobenzene-d5	1.80		mg/kg	2.00		90.1	36.9-116			
Phenanthrene	0.290	0.040	mg/kg	0.400		72.6	38.1-123	0.841	13.5	
Pyrene	0.278	0.040	mg/kg	0.400		69.6	39.4-120	0.522	26.5	
Surrogate: Terphenyl-d14	1.67		mg/kg	2.00		83.4	35.1-158			

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Debbie Zufelt, Reports Manager

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BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910
Project Name / Number: Bird Farm Riser
Project Manager: Andy Hawk

Reported:
06/23/16 16:21

Notes and Definitions

S-BN	Base/Neutral surrogate recovery outside of control limits. The data was accepted based on valid recovery of remaining two base/neutral surrogates.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
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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service@greenanalytical.com or dzufell@greenanalytical.com
75 Suttle St Durango, CO 81303

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name (if Applicable): <u>BP America Prod Co</u>		P.O. #: <u>VHAWT AG ENV</u>		Bill to (if different):	
Contact Person: <u>Andy Hawk</u>		Company:			
Address: <u>380 Airport Road</u>		Attn:			
City: <u>Durango</u> State: <u>CO</u> Zip: <u>81303</u>		Address:			
Phone #: <u>970-375-7590</u>		City:			
Email: <u>andrew.hawk@bp.com</u>		State:		Zip:	
Project Name (optional): <u>BP Bird Forum Disc</u>		Phone #:			
Project Number (optional):		Email:			
Sampler Name (Print): <u>Andrew Hawk</u>		Matrix (check one)		# of containers	
For Lab Use	Sample Name or Location	Collected			
		Date	Time	GROUNDWATER	
				SURFACEWATER	
				WASTEWATER	
				PRODUCED WATER	
				SOIL	
				DRINKING WATER	
				OTHER:	
				No preservation (general)	
				HNO ₃	
		HCl			
		H ₂ SO ₄			
		Other:			
		Other:			
PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion. In no event shall GAL be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.		Received By: <u>Michael Valentine</u>		Report to State? (Circle)	
Relinquished By: <u>[Signature]</u>		Date: <u>6/9/16</u> Time: <u>13:15</u>		Yes No	
Relinquished By:		Date:			
Relinquished By:		Date:			
Relinquished By:		Date:			
Delivered By: (Circle One)		Temperature at receipt: <u>30C</u>		CHECKED BY: <u>MV</u>	
Sampler - UPS - FedEx - Kangaroo - Other:					

* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.