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Durango, CO 81303
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20 March 2019

Steve Moskal
BP America
380 Airport Rd.
Durango, CO 81303
RE: Table 910 - less PAH, metals

Enclosed are the results of analyses for samples received by the laboratory on 03/15/19 13:40. The data to follow was performed, in whole or in part, by a subcontract laboratory with an additional report attached.

If you any 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 - less PAH, metals
Project Name / Number: Thomas Jacquez E #1
Project Manager: Steve Moskal

Reported:
03/20/19 15:17

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
SS 73	1903176-01	Solid	03/15/19 10:00	03/15/19 13:40	
SS 74	1903176-02	Solid	03/15/19 10:05	03/15/19 13:40	
SS 75	1903176-03	Solid	03/15/19 10:45	03/15/19 13:40	
SS 76	1903176-04	Solid	03/15/19 10:50	03/15/19 13:40	
SS 77	1903176-05	Solid	03/15/19 11:10	03/15/19 13:40	
SS 78	1903176-06	Solid	03/15/19 11:55	03/15/19 13:40	
SS 79	1903176-07	Solid	03/15/19 12:00	03/15/19 13:40	
SS 80	1903176-08	Solid	03/15/19 12:10	03/15/19 13:40	
SS 81	1903176-09	Solid	03/15/19 13:00	03/15/19 13:40	

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BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910 - less PAH, metals
Project Name / Number: Thomas Jacquez E #1
Project Manager: Steve Moskal

Reported:
03/20/19 15:17

SS 73**1903176-01 (Solid)**

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

Calcium	72.5	0.100	0.013	mg/L	1	03/20/19	EPA200.7		AES
Conductivity	514			umhos/cm	1	03/19/19	ASA#9 10-3.3		JDA
Magnesium	10.6	0.100	0.019	mg/L	1	03/20/19	EPA200.7		AES
pH	7.60			pH Units	1	03/19/19	ASA#9 12-2.6		JDA
SAR	0.33			No Unit	1	03/20/19	Calculation		AES
Sodium	11.5	1.00	0.367	mg/L	1	03/20/19	EPA200.7		AES

Subcontracted -- Cardinal Laboratories**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050	0.050	0.002	mg/kg	50	03/20/19	8021B		ms
Toluene*	<0.050	0.050	0.002	mg/kg	50	03/20/19	8021B		ms
Ethylbenzene*	<0.050	0.050	0.004	mg/kg	50	03/20/19	8021B		ms
Total Xylenes*	<0.150	0.150	0.010	mg/kg	50	03/20/19	8021B		ms
Total BTEX	<0.300	0.300	0.018	mg/kg	50	03/20/19	8021B		ms

Surrogate: 4-Bromofluorobenzene (PID) 91.3 % 73.3-129 03/20/19 8021B ms

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0	10.0	5.30	mg/kg	1	03/20/19	8015B		MS
DRO >C10-C28*	<10.0	10.0	1.56	mg/kg	1	03/20/19	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	1.56	mg/kg	1	03/20/19	8015B		MS

Surrogate: 1-Chlorooctane 108 % 41-142 03/20/19 8015B MS

Surrogate: 1-Chlorooctadecane 114 % 37.6-147 03/20/19 8015B MS

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BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910 - less PAH, metals
Project Name / Number: Thomas Jacquez E #1
Project Manager: Steve Moskal

Reported:
03/20/19 15:17

SS 74**1903176-02 (Solid)**

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

Calcium	66.7	0.100	0.013	mg/L	1	03/20/19	EPA200.7		AES
Conductivity	467			umhos/cm	1	03/19/19	ASA#9 10-3.3		JDA
Magnesium	10.4	0.100	0.019	mg/L	1	03/20/19	EPA200.7		AES
pH	7.67			pH Units	1	03/19/19	ASA#9 12-2.6		JDA
SAR	0.45			No Unit	1	03/20/19	Calculation		AES
Sodium	15.0	1.00	0.367	mg/L	1	03/20/19	EPA200.7		AES

Subcontracted -- Cardinal Laboratories**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050	0.050	0.002	mg/kg	50	03/20/19	8021B		ms
Toluene*	<0.050	0.050	0.002	mg/kg	50	03/20/19	8021B		ms
Ethylbenzene*	<0.050	0.050	0.004	mg/kg	50	03/20/19	8021B		ms
Total Xylenes*	<0.150	0.150	0.010	mg/kg	50	03/20/19	8021B		ms
Total BTEX	<0.300	0.300	0.018	mg/kg	50	03/20/19	8021B		ms

Surrogate: 4-Bromofluorobenzene (PID)

93.5 % 73.3-129

03/20/19

8021B

ms

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0	10.0	5.30	mg/kg	1	03/20/19	8015B		MS
DRO >C10-C28*	<10.0	10.0	1.56	mg/kg	1	03/20/19	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	1.56	mg/kg	1	03/20/19	8015B		MS

Surrogate: 1-Chlorooctane

104 % 41-142

03/20/19

8015B

MS

Surrogate: 1-Chlorooctadecane

111 % 37.6-147

03/20/19

8015B

MS

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BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910 - less PAH, metals
Project Name / Number: Thomas Jacquez E #1
Project Manager: Steve Moskal

Reported:
03/20/19 15:17

SS 75

1903176-03 (Solid)

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

Calcium	118	0.100	0.013	mg/L	1	03/20/19	EPA200.7		AES
Conductivity	813			umhos/cm	1	03/19/19	ASA#9 10-3.3		JDA
Magnesium	17.0	0.100	0.019	mg/L	1	03/20/19	EPA200.7		AES
pH	7.58			pH Units	1	03/19/19	ASA#9 12-2.6		JDA
SAR	0.28			No Unit	1	03/20/19	Calculation		AES
Sodium	12.4	1.00	0.367	mg/L	1	03/20/19	EPA200.7		AES

Subcontracted -- Cardinal Laboratories

Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050	0.050	0.002	mg/kg	50	03/20/19	8021B		ms
Toluene*	<0.050	0.050	0.002	mg/kg	50	03/20/19	8021B		ms
Ethylbenzene*	<0.050	0.050	0.004	mg/kg	50	03/20/19	8021B		ms
Total Xylenes*	<0.150	0.150	0.010	mg/kg	50	03/20/19	8021B		ms
Total BTEX	<0.300	0.300	0.018	mg/kg	50	03/20/19	8021B		ms

Surrogate: 4-Bromofluorobenzene (PID) 92.0 % 73.3-129 03/20/19 8021B ms

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0	10.0	5.30	mg/kg	1	03/20/19	8015B		MS
DRO >C10-C28*	<10.0	10.0	1.56	mg/kg	1	03/20/19	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	1.56	mg/kg	1	03/20/19	8015B		MS

Surrogate: 1-Chlorooctane 102 % 41-142 03/20/19 8015B MS

Surrogate: 1-Chlorooctadecane 110 % 37.6-147 03/20/19 8015B MS

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380 Airport Rd.
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Project: Table 910 - less PAH, metals
Project Name / Number: Thomas Jacquez E #1
Project Manager: Steve Moskal

Reported:
03/20/19 15:17

SS 76**1903176-04 (Solid)**

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

Calcium	253	0.200	0.026	mg/L	2	03/20/19	EPA200.7		AES
Conductivity	1200			umhos/cm	1	03/19/19	ASA#9 10-3.3		JDA
Magnesium	28.6	0.200	0.038	mg/L	2	03/20/19	EPA200.7		AES
pH	7.25			pH Units	1	03/19/19	ASA#9 12-2.6		JDA
SAR	0.30			No Unit	1	03/20/19	Calculation		AES
Sodium	18.6	2.00	0.734	mg/L	2	03/20/19	EPA200.7		AES

Subcontracted -- Cardinal Laboratories**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050	0.050	0.002	mg/kg	50	03/20/19	8021B		ms
Toluene*	<0.050	0.050	0.002	mg/kg	50	03/20/19	8021B		ms
Ethylbenzene*	<0.050	0.050	0.004	mg/kg	50	03/20/19	8021B		ms
Total Xylenes*	<0.150	0.150	0.010	mg/kg	50	03/20/19	8021B		ms
Total BTEX	<0.300	0.300	0.018	mg/kg	50	03/20/19	8021B		ms

Surrogate: 4-Bromofluorobenzene (PID) 90.7 % 73.3-129 03/20/19 8021B ms

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0	10.0	5.30	mg/kg	1	03/20/19	8015B		MS
DRO >C10-C28*	<10.0	10.0	1.56	mg/kg	1	03/20/19	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	1.56	mg/kg	1	03/20/19	8015B		MS

Surrogate: 1-Chlorooctane 104 % 41-142 03/20/19 8015B MS

Surrogate: 1-Chlorooctadecane 114 % 37.6-147 03/20/19 8015B MS

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BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910 - less PAH, metals
Project Name / Number: Thomas Jacquez E #1
Project Manager: Steve Moskal

Reported:
03/20/19 15:17

SS 77**1903176-05 (Solid)**

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

Calcium	81.1	0.100	0.013	mg/L	1	03/20/19	EPA200.7		AES
Conductivity	755			umhos/cm	1	03/19/19	ASA#9 10-3.3		JDA
Magnesium	16.8	0.100	0.019	mg/L	1	03/20/19	EPA200.7		AES
pH	6.36			pH Units	1	03/19/19	ASA#9 12-2.6		JDA
SAR	0.10			No Unit	1	03/20/19	Calculation		AES
Sodium	3.91	1.00	0.367	mg/L	1	03/20/19	EPA200.7		AES

Total Metals by ICPMS

Arsenic	4.88	1.00	0.214	mg/kg dry	1000	03/20/19	6020A		AES
Manganese	346	2.00	0.0895	mg/kg dry	1000	03/20/19	6020A		AES

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Debbie Zufelt, Reports Manager

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BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910 - less PAH, metals
Project Name / Number: Thomas Jacquez E #1
Project Manager: Steve Moskal

Reported:
03/20/19 15:17

SS 78**1903176-06 (Solid)**

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

Calcium	69.3	0.100	0.013	mg/L	1	03/20/19	EPA200.7		AES
Conductivity	435			umhos/cm	1	03/19/19	ASA#9 10-3.3		JDA
Magnesium	10.3	0.100	0.019	mg/L	1	03/20/19	EPA200.7		AES
pH	7.55			pH Units	1	03/19/19	ASA#9 12-2.6		JDA
SAR	0.16			No Unit	1	03/20/19	Calculation		AES
Sodium	5.55	1.00	0.367	mg/L	1	03/20/19	EPA200.7		AES

Total Metals by ICPMS

Arsenic	5.71	1.00	0.214	mg/kg dry	1000	03/20/19	6020A		AES
Manganese	662	2.00	0.0895	mg/kg dry	1000	03/20/19	6020A		AES

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BP America
380 Airport Rd.
Durango CO, 81303

Project: Table 910 - less PAH, metals
Project Name / Number: Thomas Jacquez E #1
Project Manager: Steve Moskal

Reported:
03/20/19 15:17

SS 79**1903176-07 (Solid)**

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

Calcium	197	0.100	0.013	mg/L	1	03/20/19	EPA200.7		AES
Conductivity	1070			umhos/cm	1	03/19/19	ASA#9 10-3.3		JDA
Magnesium	21.6	0.100	0.019	mg/L	1	03/20/19	EPA200.7		AES
pH	7.64			pH Units	1	03/19/19	ASA#9 12-2.6		JDA
SAR	0.58			No Unit	1	03/20/19	Calculation		AES
Sodium	31.9	1.00	0.367	mg/L	1	03/20/19	EPA200.7		AES

Subcontracted -- Cardinal Laboratories**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050	0.050	0.002	mg/kg	50	03/19/19	8021B		MS
Toluene*	<0.050	0.050	0.002	mg/kg	50	03/19/19	8021B		MS
Ethylbenzene*	<0.050	0.050	0.004	mg/kg	50	03/19/19	8021B		MS
Total Xylenes*	<0.150	0.150	0.010	mg/kg	50	03/19/19	8021B		MS
Total BTEX	<0.300	0.300	0.018	mg/kg	50	03/19/19	8021B		MS

Surrogate: 4-Bromofluorobenzene (PID)	113 %	73.3-129		03/19/19	8021B	MS
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Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0	10.0	5.30	mg/kg	1	03/20/19	8015B		MS
DRO >C10-C28*	<10.0	10.0	1.56	mg/kg	1	03/20/19	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	1.56	mg/kg	1	03/20/19	8015B		MS

Surrogate: 1-Chlorooctane	93.4 %	41-142		03/20/19	8015B	MS
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Surrogate: 1-Chlorooctadecane	100 %	37.6-147		03/20/19	8015B	MS
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BP America
380 Airport Rd.
Durango CO, 81303Project: Table 910 - less PAH, metals
Project Name / Number: Thomas Jacquez E #1
Project Manager: Steve MoskalReported:
03/20/19 15:17

SS 80

1903176-08 (Solid)

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

Calcium	197	0.100	0.013	mg/L	1	03/20/19	EPA200.7		AES
Conductivity	1050			umhos/cm	1	03/19/19	ASA#9 10-3.3		JDA
Magnesium	22.0	0.100	0.019	mg/L	1	03/20/19	EPA200.7		AES
pH	7.61			pH Units	1	03/19/19	ASA#9 12-2.6		JDA
SAR	0.48			No Unit	1	03/20/19	Calculation		AES
Sodium	26.6	1.00	0.367	mg/L	1	03/20/19	EPA200.7		AES

Subcontracted -- Cardinal Laboratories

Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050	0.050	0.002	mg/kg	50	03/19/19	8021B		MS
Toluene*	<0.050	0.050	0.002	mg/kg	50	03/19/19	8021B		MS
Ethylbenzene*	<0.050	0.050	0.004	mg/kg	50	03/19/19	8021B		MS
Total Xylenes*	<0.150	0.150	0.010	mg/kg	50	03/19/19	8021B		MS
Total BTEX	<0.300	0.300	0.018	mg/kg	50	03/19/19	8021B		MS

Surrogate: 4-Bromofluorobenzene (PID)

114 % 73.3-129

03/19/19

8021B

MS

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0	10.0	5.30	mg/kg	1	03/20/19	8015B		MS
DRO >C10-C28*	<10.0	10.0	1.56	mg/kg	1	03/20/19	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	1.56	mg/kg	1	03/20/19	8015B		MS

Surrogate: 1-Chlorooctane

99.6 % 41-142

03/20/19

8015B

MS

Surrogate: 1-Chlorooctadecane

107 % 37.6-147

03/20/19

8015B

MS

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

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380 Airport Rd.
Durango CO, 81303Project: Table 910 - less PAH, metals
Project Name / Number: Thomas Jacquez E #1
Project Manager: Steve MoskalReported:
03/20/19 15:17

SS 81

1903176-09 (Solid)

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

Calcium	201	0.200	0.026	mg/L	2	03/20/19	EPA200.7		AES
Conductivity	1140			umhos/cm	1	03/19/19	ASA#9 10-3.3		JDA
Magnesium	21.0	0.200	0.038	mg/L	2	03/20/19	EPA200.7		AES
pH	7.74			pH Units	1	03/19/19	ASA#9 12-2.6		JDA
SAR	1.07			No Unit	1	03/20/19	Calculation		AES
Sodium	59.7	2.00	0.734	mg/L	2	03/20/19	EPA200.7		AES

Total Metals by ICPMS

Arsenic	1.87	1.00	0.214	mg/kg dry	1000	03/20/19	6020A		AES
Manganese	445	2.00	0.0895	mg/kg dry	1000	03/20/19	6020A		AES

Subcontracted -- Cardinal Laboratories

Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050	0.050	0.002	mg/kg	50	03/19/19	8021B		MS
Toluene*	<0.050	0.050	0.002	mg/kg	50	03/19/19	8021B		MS
Ethylbenzene*	<0.050	0.050	0.004	mg/kg	50	03/19/19	8021B		MS
Total Xylenes*	<0.150	0.150	0.010	mg/kg	50	03/19/19	8021B		MS
Total BTEX	<0.300	0.300	0.018	mg/kg	50	03/19/19	8021B		MS

Surrogate: 4-Bromofluorobenzene (PID)

113 % 73.3-129

03/19/19

8021B

MS

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0	10.0	5.30	mg/kg	1	03/20/19	8015B		MS
DRO >C10-C28*	<10.0	10.0	1.56	mg/kg	1	03/20/19	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	1.56	mg/kg	1	03/20/19	8015B		MS

Surrogate: 1-Chlorooctane

99.1 % 41-142

03/20/19

8015B

MS

Surrogate: 1-Chlorooctadecane

107 % 37.6-147

03/20/19

8015B

MS

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BP America
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Project: Table 910 - less PAH, metals
Project Name / Number: Thomas Jacquez E #1
Project Manager: Steve Moskal

Reported:
03/20/19 15:17

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 B903165 - Paste Extract

Blank (B903165-BLK1)

Prepared: 03/19/19 Analyzed: 03/20/19

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

Duplicate (B903165-DUP2)

Source: 1903176-04 Prepared: 03/19/19 Analyzed: 03/20/19

Calcium	237	0.200	mg/L	253	6.66	20
Magnesium	26.9	0.200	mg/L	28.6	6.09	20
SAR	0.30		No Unit	0.30	0.00	20
Sodium	18.0	2.00	mg/L	18.6	3.55	20

Batch B903166 - Paste Extract

Duplicate (B903166-DUP2)

Source: 1903176-04 Prepared & Analyzed: 03/19/19

pH	7.27		pH Units	7.25	0.275	20
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Batch B903167 - Paste Extract

Duplicate (B903167-DUP2)

Source: 1903176-04 Prepared & Analyzed: 03/19/19

Conductivity	1150		umhos/cm	1200	4.42	20
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Project: Table 910 - less PAH, metals
Project Name / Number: Thomas Jacquez E #1
Project Manager: Steve Moskal

Reported:
03/20/19 15:17

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 B903170 - EPA 3050M

Blank (B903170-BLK1)

Prepared: 03/19/19 Analyzed: 03/20/19

Arsenic	ND	0.100	mg/kg dry							
Manganese	ND	0.200	mg/kg dry							

LCS (B903170-BS1)

Prepared: 03/19/19 Analyzed: 03/20/19

Arsenic	4.83	0.100	mg/kg dry	5.00		96.5	80-120			
Manganese	4.66	0.200	mg/kg dry	5.00		93.2	80-120			

LCS Dup (B903170-BSD1)

Prepared: 03/19/19 Analyzed: 03/20/19

Arsenic	4.67	0.100	mg/kg dry	5.00		93.4	80-120	3.22	20	
Manganese	4.62	0.200	mg/kg dry	5.00		92.4	80-120	0.933	20	

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Project: Table 910 - less PAH, metals
Project Name / Number: Thomas Jacquez E #1
Project Manager: Steve Moskal

Reported:
03/20/19 15:17

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 9031906 - Volatiles

Blank (9031906-BLK1)

Prepared & Analyzed: 03/19/19

Surrogate: 4-Bromofluorobenzene (PID)	0.125		mg/kg	0.100		125	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 (9031906-BS1)

Prepared & Analyzed: 03/19/19

S-04

Surrogate: 4-Bromofluorobenzene (PID)	0.134		mg/kg	0.100		134	73.3-129			
Benzene	1.89	0.050	mg/kg	2.00		94.6	72.2-131			
Ethylbenzene	2.19	0.050	mg/kg	2.00		109	68.9-126			
Toluene	1.98	0.050	mg/kg	2.00		98.9	71.7-126			
Total Xylenes	6.27	0.150	mg/kg	6.00		105	71.4-125			

LCS Dup (9031906-BSD1)

Prepared & Analyzed: 03/19/19

S-04

Surrogate: 4-Bromofluorobenzene (PID)	0.134		mg/kg	0.100		134	73.3-129			
Benzene	1.95	0.050	mg/kg	2.00		97.7	72.2-131	3.16	6.91	
Ethylbenzene	2.22	0.050	mg/kg	2.00		111	68.9-126	1.44	7.88	
Toluene	2.03	0.050	mg/kg	2.00		101	71.7-126	2.42	7.12	
Total Xylenes	6.32	0.150	mg/kg	6.00		105	71.4-125	0.731	7.46	

Batch 9031913 - Volatiles

Blank (9031913-BLK1)

Prepared & Analyzed: 03/19/19

Surrogate: 4-Bromofluorobenzene (PID)	0.0906		mg/kg	0.100		90.6	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 (9031913-BS1)

Prepared & Analyzed: 03/19/19

Surrogate: 4-Bromofluorobenzene (PID)	0.0888		mg/kg	0.100		88.8	73.3-129			
Benzene	1.83	0.050	mg/kg	2.00		91.7	72.2-131			
Ethylbenzene	1.76	0.050	mg/kg	2.00		87.9	68.9-126			
Toluene	1.68	0.050	mg/kg	2.00		84.0	71.7-126			
Total Xylenes	5.39	0.150	mg/kg	6.00		89.8	71.4-125			

LCS Dup (9031913-BSD1)

Prepared & Analyzed: 03/19/19

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Project: Table 910 - less PAH, metals
Project Name / Number: Thomas Jacquez E #1
Project Manager: Steve Moskal

Reported:
03/20/19 15:17

**Volatile Organic Compounds by EPA Method 8021 - Quality Control
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 9031913 - Volatiles (Continued)

LCS Dup (9031913-BSD1) (Continued)

Prepared & Analyzed: 03/19/19

Surrogate: 4-Bromofluorobenzene (PID)	0.0887		mg/kg	0.100		88.7	73.3-129			
Benzene	1.83	0.050	mg/kg	2.00		91.5	72.2-131	0.217	6.91	
Ethylbenzene	1.78	0.050	mg/kg	2.00		89.1	68.9-126	1.33	7.88	
Toluene	1.71	0.050	mg/kg	2.00		85.5	71.7-126	1.76	7.12	
Total Xylenes	5.37	0.150	mg/kg	6.00		89.6	71.4-125	0.271	7.46	

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Project: Table 910 - less PAH, metals
Project Name / Number: Thomas Jacquez E #1
Project Manager: Steve Moskal

Reported:
03/20/19 15:17

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 9031904 - General Prep - Organics

Blank (9031904-BLK1)

Prepared & Analyzed: 03/19/19

Surrogate: 1-Chlorooctadecane	50.7		mg/kg	50.0		101	37.6-147			
Surrogate: 1-Chlorooctane	50.0		mg/kg	50.0		100	41-142			
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 (9031904-BS1)

Prepared & Analyzed: 03/19/19

Surrogate: 1-Chlorooctadecane	50.5		mg/kg	50.0		101	37.6-147			
Surrogate: 1-Chlorooctane	52.7		mg/kg	50.0		105	41-142			
DRO >C10-C28	169	10.0	mg/kg	200		84.7	72.9-138			
GRO C6-C10	192	10.0	mg/kg	200		96.1	76.5-133			
Total TPH C6-C28	362	10.0	mg/kg	400		90.4	78-132			

LCS Dup (9031904-BSD1)

Prepared & Analyzed: 03/19/19

Surrogate: 1-Chlorooctadecane	53.1		mg/kg	50.0		106	37.6-147			
Surrogate: 1-Chlorooctane	53.4		mg/kg	50.0		107	41-142			
DRO >C10-C28	191	10.0	mg/kg	200		95.7	72.9-138	12.1	20.6	
GRO C6-C10	202	10.0	mg/kg	200		101	76.5-133	4.74	20.6	
Total TPH C6-C28	393	10.0	mg/kg	400		98.2	78-132	8.28	18	

Batch 9031912 - General Prep - Organics

Blank (9031912-BLK1)

Prepared: 03/19/19 Analyzed: 03/20/19

Surrogate: 1-Chlorooctadecane	51.3		mg/kg	50.0		103	37.6-147			
Surrogate: 1-Chlorooctane	50.8		mg/kg	50.0		102	41-142			
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 (9031912-BS1)

Prepared: 03/19/19 Analyzed: 03/20/19

Surrogate: 1-Chlorooctadecane	53.4		mg/kg	50.0		107	37.6-147			
Surrogate: 1-Chlorooctane	53.4		mg/kg	50.0		107	41-142			
DRO >C10-C28	221	10.0	mg/kg	200		110	72.9-138			
GRO C6-C10	198	10.0	mg/kg	200		99.2	76.5-133			
Total TPH C6-C28	419	10.0	mg/kg	400		105	78-132			

LCS Dup (9031912-BSD1)

Prepared: 03/19/19 Analyzed: 03/20/19

Surrogate: 1-Chlorooctadecane	51.9		mg/kg	50.0		104	37.6-147			
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Project: Table 910 - less PAH, metals
Project Name / Number: Thomas Jacquez E #1
Project Manager: Steve Moskal

Reported:
03/20/19 15:17

**Petroleum Hydrocarbons by GC FID - Quality Control
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 9031912 - General Prep - Organics (Continued)

LCS Dup (9031912-BSD1) (Continued)

Prepared: 03/19/19 Analyzed: 03/20/19

Surrogate: 1-Chlorooctane	52.7		mg/kg	50.0		105	41-142			
DRO >C10-C28	231	10.0	mg/kg	200		115	72.9-138	4.55	20.6	
GRO C6-C10	204	10.0	mg/kg	200		102	76.5-133	2.64	20.6	
Total TPH C6-C28	435	10.0	mg/kg	400		109	78-132	3.65	18	

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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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All samples will be analyzed for BTEX, TPH, SAR, pH, and EC. No PAHs, no metal.