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08 September 2021

Jake Harter
Cottonwood Consulting
PO Box 1653
Durango, CO 81302
RE: COGCC Table 915-1

Enclosed are the results of analyses for samples received by the laboratory on 08/20/21 15:15. 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'.

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. TNI Certificate Number: T104704514-21-12

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. TNI Certificate Number: T104704398-21-14



Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: M. Spaulding Centralized Tank Battery
Project Manager: Jake Harter

Reported:
09/08/21 12:31

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
SS01	2108209-01	Solid	08/19/21 08:35	08/20/21 15:15	
SS02	2108209-02	Solid	08/19/21 08:45	08/20/21 15:15	
SS03	2108209-03	Solid	08/19/21 09:00	08/20/21 15:15	
SS04	2108209-04	Solid	08/19/21 09:10	08/20/21 15:15	
SS05	2108209-05	Solid	08/19/21 10:00	08/20/21 15:15	
SS06	2108209-06	Solid	08/19/21 10:45	08/20/21 15:15	
SS07	2108209-07	Solid	08/19/21 10:55	08/20/21 15:15	
SS08	2108209-08	Solid	08/19/21 11:05	08/20/21 15:15	
SS09	2108209-09	Solid	08/19/21 11:20	08/20/21 15:15	
SS10	2108209-10	Solid	08/19/21 11:25	08/20/21 15:15	
SS11	2108209-11	Solid	08/19/21 11:30	08/20/21 15:15	
SS12	2108209-12	Solid	08/19/21 13:45	08/20/21 15:15	

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS01

2108209-01 (Soil)

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

Calcium	112	0.100	0.058	mg/L	1	08/31/21 12:44	EPA200.7		AES
Conductivity	1060			umho/cm @ 25.0°C	1	08/30/21 14:31	ASA#9 10-3.3		JDA
Magnesium	11.9	0.100	0.065	mg/L	1	08/31/21 12:44	EPA200.7		AES
pH	7.63			pH Units	1	08/30/21 14:33	ASA#9 10-3.2		JDA
SAR	1.99			No Unit	1	08/31/21 12:44	Calculation		AES
Sodium	82.7	1.00	0.079	mg/L	1	08/31/21 12:44	EPA200.7		AES

Total Metals by ICP

Barium	178	5.00	0.390	mg/kg dry	100	09/01/21 15:57	6010B		AES
Cadmium	<5.00	5.00	1.10	mg/kg dry	100	09/01/21 15:57	6010B		AES
Chromium	25.7	5.00	0.400	mg/kg dry	100	09/01/21 15:57	6010B		AES
Copper	28.7	5.00	2.39	mg/kg dry	100	09/01/21 15:57	6010B		AES
Lead	<10.0	10.0	0.906	mg/kg dry	100	09/01/21 15:57	6010B		AES
Nickel	16.3	5.00	0.874	mg/kg dry	100	09/01/21 15:57	6010B		AES
Selenium	<20.0	20.0	4.70	mg/kg dry	100	09/01/21 15:57	6010B		AES
Silver	<1.00	1.00	0.688	mg/kg dry	100	09/01/21 15:57	6010B		AES
Zinc	69.1	10.0	1.71	mg/kg dry	100	09/01/21 15:57	6010B		AES

Total Metals by ICPMS

Arsenic	4.23	1.00	0.0950	mg/kg dry	1000	09/02/21 12:51	6020A		AES
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Hot Water Extractable

Boron	<1.20	1.20	0.568	mg/L	4	08/30/21 12:29	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	17.9	10.0	6.25	mg/kg	1	08/28/21 08:27	8015B		CK
DRO >C10-C28*	41.9	10.0	4.26	mg/kg	1	08/28/21 08:27	8015B		CK
EXT DRO >C28-C36	<10.0	10.0	4.26	mg/kg	1	08/28/21 08:27	8015B		CK

Surrogate: 1-Chlorooctane			76.6 %	44.3-133		08/28/21 08:27	8015B		CK
Surrogate: 1-Chlorooctadecane			68.0 %	38.9-142		08/28/21 08:27	8015B		CK

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Debbie Zufelt, Reports Manager

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS01

2108209-01 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Benzene*	<0.0250	0.0250	0.00885	mg/kg	50	08/26/21 00:09	8260B		MS
Toluene*	0.0329	0.0250	0.00670	mg/kg	50	08/26/21 00:09	8260B		MS
Ethylbenzene*	0.0804	0.0250	0.00405	mg/kg	50	08/26/21 00:09	8260B		MS
m+p - Xylene*	0.380	0.0500	0.0186	mg/kg	50	08/26/21 00:09	8260B		MS
o-Xylene*	0.199	0.0250	0.00700	mg/kg	50	08/26/21 00:09	8260B		MS
Total Xylenes*	0.578	0.0750	0.0250	mg/kg	50	08/26/21 00:09	8260B		MS
1,3,5-Trimethylbenzene	0.177	0.0250	0.00450	mg/kg	50	08/26/21 00:09	8260B		MS
1,2,4-Trimethylbenzene	0.822	0.0250	0.00650	mg/kg	50	08/26/21 00:09	8260B	QM-07	MS
Naphthalene*	0.279	0.0250	0.00500	mg/kg	50	08/26/21 00:09	8260B		MS
Surrogate: Dibromofluoromethane			108 %	84.6-114		08/26/21 00:09	8260B		MS
Surrogate: Toluene-d8			97.3 %	90.4-109		08/26/21 00:09	8260B		MS
Surrogate: 4-Bromofluorobenzene			108 %	82.5-117		08/26/21 00:09	8260B		MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	0.173	0.040	0.015	mg/kg	40	09/02/21 17:22	8270C	QM-07	MS
2-Methylnaphthalene*	0.905	0.040	0.023	mg/kg	40	09/02/21 17:22	8270C	QM-07	MS
1-Methylnaphthalene	0.715	0.040	0.016	mg/kg	40	09/02/21 17:22	8270C	QM-07	MS
Acenaphthylene*	<0.020	0.040	0.020	mg/kg	40	09/02/21 17:22	8270C		MS
Acenaphthene*	<0.024	0.040	0.024	mg/kg	40	09/02/21 17:22	8270C		MS
Fluorene*	0.144	0.040	0.014	mg/kg	40	09/02/21 17:22	8270C	QM-07	MS
Phenanthrene*	0.332	0.040	0.021	mg/kg	40	09/02/21 17:22	8270C	QM-07	MS
Anthracene*	<0.017	0.040	0.017	mg/kg	40	09/02/21 17:22	8270C		MS
Carbazole*	<0.019	0.040	0.019	mg/kg	40	09/02/21 17:22	8270C		MS
Fluoranthene*	<0.019	0.040	0.019	mg/kg	40	09/02/21 17:22	8270C		MS
Pyrene*	0.047	0.040	0.013	mg/kg	40	09/02/21 17:22	8270C		MS
Benzo[a]anthracene*	<0.023	0.040	0.023	mg/kg	40	09/02/21 17:22	8270C		MS
Chrysene*	0.061	0.040	0.017	mg/kg	40	09/02/21 17:22	8270C		MS
Benzo[b]flouranthene*	<0.019	0.040	0.019	mg/kg	40	09/02/21 17:22	8270C		MS
Benzo[k]flouranthene*	<0.016	0.040	0.016	mg/kg	40	09/02/21 17:22	8270C		MS
Benzo[a]pyrene*	<0.018	0.040	0.018	mg/kg	40	09/02/21 17:22	8270C		MS
Indeno[1,2,3-cd]pyrene*	<0.017	0.040	0.017	mg/kg	40	09/02/21 17:22	8270C		MS

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Debbie Zufelt

Debbie Zufelt, Reports Manager

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS01

2108209-01 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Polynuclear Aromatic Compounds by GC/MS

Dibenz[a,h]anthracene*	<0.019	0.040	0.019	mg/kg	40	09/02/21 17:22	8270C		MS
Benzo[g,h,i]perylene*	<0.019	0.040	0.019	mg/kg	40	09/02/21 17:22	8270C		MS
Surrogate: Nitrobenzene-d5			86.4 %	39.6-121		09/02/21 17:22	8270C		MS
Surrogate: 2-Fluorobiphenyl			82.5 %	39.8-134		09/02/21 17:22	8270C		MS
Surrogate: Terphenyl-d14			88.1 %	33.3-136		09/02/21 17:22	8270C		MS

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS02

2108209-02 (Soil)

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

Calcium	67.0	0.100	0.058	mg/L	1	08/31/21 12:52	EPA200.7		AES
Conductivity	430			umho/cm @ 25.0°C	1	08/30/21 14:31	ASA#9 10-3.3		JDA
Magnesium	9.61	0.100	0.065	mg/L	1	08/31/21 12:52	EPA200.7		AES
pH	7.47			pH Units	1	08/30/21 14:33	ASA#9 10-3.2		JDA
SAR	0.28			No Unit	1	08/31/21 12:52	Calculation		AES
Sodium	9.39	1.00	0.079	mg/L	1	08/31/21 12:52	EPA200.7		AES

Total Metals by ICP

Barium	211	5.00	0.390	mg/kg dry	100	09/01/21 16:09	6010B		AES
Cadmium	<5.00	5.00	1.10	mg/kg dry	100	09/01/21 16:09	6010B		AES
Chromium	24.2	5.00	0.400	mg/kg dry	100	09/01/21 16:09	6010B		AES
Copper	27.4	5.00	2.39	mg/kg dry	100	09/01/21 16:09	6010B		AES
Lead	<10.0	10.0	0.906	mg/kg dry	100	09/01/21 16:09	6010B		AES
Nickel	19.1	5.00	0.874	mg/kg dry	100	09/01/21 16:09	6010B		AES
Selenium	<20.0	20.0	4.70	mg/kg dry	100	09/01/21 16:09	6010B		AES
Silver	<1.00	1.00	0.688	mg/kg dry	100	09/01/21 16:09	6010B		AES
Zinc	71.6	10.0	1.71	mg/kg dry	100	09/01/21 16:09	6010B		AES

Total Metals by ICPMS

Arsenic	6.55	1.00	0.0950	mg/kg dry	1000	09/02/21 12:55	6020A		AES
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Hot Water Extractable

Boron	<1.20	1.20	0.568	mg/L	4	08/30/21 12:37	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0	10.0	6.25	mg/kg	1	08/28/21 08:48	8015B		CK
DRO >C10-C28*	<10.0	10.0	4.26	mg/kg	1	08/28/21 08:48	8015B		CK
EXT DRO >C28-C36	<10.0	10.0	4.26	mg/kg	1	08/28/21 08:48	8015B		CK

Surrogate: 1-Chlorooctane			79.0 %	44.3-133		08/28/21 08:48	8015B		CK
Surrogate: 1-Chlorooctadecane			71.5 %	38.9-142		08/28/21 08:48	8015B		CK

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Debbie Zufelt, Reports Manager

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SS02

2108209-02 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Benzene*	<0.0250	0.0250	0.00885	mg/kg	50	08/26/21 00:29	8260B		MS
Toluene*	<0.0250	0.0250	0.00670	mg/kg	50	08/26/21 00:29	8260B		MS
Ethylbenzene*	<0.0250	0.0250	0.00405	mg/kg	50	08/26/21 00:29	8260B		MS
m+p - Xylene*	<0.0500	0.0500	0.0186	mg/kg	50	08/26/21 00:29	8260B		MS
o-Xylene*	<0.0250	0.0250	0.00700	mg/kg	50	08/26/21 00:29	8260B		MS
Total Xylenes*	<0.0750	0.0750	0.0250	mg/kg	50	08/26/21 00:29	8260B		MS
1,3,5-Trimethylbenzene	<0.0250	0.0250	0.00450	mg/kg	50	08/26/21 00:29	8260B		MS
1,2,4-Trimethylbenzene	<0.0250	0.0250	0.00650	mg/kg	50	08/26/21 00:29	8260B		MS
Naphthalene*	<0.0250	0.0250	0.00500	mg/kg	50	08/26/21 00:29	8260B		MS
Surrogate: Dibromofluoromethane			107 %	84.6-114		08/26/21 00:29	8260B		MS
Surrogate: Toluene-d8			104 %	90.4-109		08/26/21 00:29	8260B		MS
Surrogate: 4-Bromofluorobenzene			90.7 %	82.5-117		08/26/21 00:29	8260B		MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	<0.015	0.040	0.015	mg/kg	40	09/02/21 17:51	8270C		MS
2-Methylnaphthalene*	<0.023	0.040	0.023	mg/kg	40	09/02/21 17:51	8270C		MS
1-Methylnaphthalene	<0.016	0.040	0.016	mg/kg	40	09/02/21 17:51	8270C		MS
Acenaphthylene*	<0.020	0.040	0.020	mg/kg	40	09/02/21 17:51	8270C		MS
Acenaphthene*	<0.024	0.040	0.024	mg/kg	40	09/02/21 17:51	8270C		MS
Fluorene*	<0.014	0.040	0.014	mg/kg	40	09/02/21 17:51	8270C		MS
Phenanthrene*	<0.021	0.040	0.021	mg/kg	40	09/02/21 17:51	8270C		MS
Anthracene*	<0.017	0.040	0.017	mg/kg	40	09/02/21 17:51	8270C		MS
Carbazole*	<0.019	0.040	0.019	mg/kg	40	09/02/21 17:51	8270C		MS
Fluoranthene*	<0.019	0.040	0.019	mg/kg	40	09/02/21 17:51	8270C		MS
Pyrene*	<0.013	0.040	0.013	mg/kg	40	09/02/21 17:51	8270C		MS
Benzo[a]anthracene*	<0.023	0.040	0.023	mg/kg	40	09/02/21 17:51	8270C		MS
Chrysene*	<0.017	0.040	0.017	mg/kg	40	09/02/21 17:51	8270C		MS
Benzo[b]fluoranthene*	<0.019	0.040	0.019	mg/kg	40	09/02/21 17:51	8270C		MS
Benzo[k]fluoranthene*	<0.016	0.040	0.016	mg/kg	40	09/02/21 17:51	8270C		MS
Benzo[a]pyrene*	<0.018	0.040	0.018	mg/kg	40	09/02/21 17:51	8270C		MS

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Debbie Zufelt, Reports Manager

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS02

2108209-02 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Polynuclear Aromatic Compounds by GC/MS

Indeno[1,2,3-cd]pyrene*	<0.017	0.040	0.017	mg/kg	40	09/02/21 17:51	8270C		MS
Dibenz[a,h]anthracene*	<0.019	0.040	0.019	mg/kg	40	09/02/21 17:51	8270C		MS
Benzo[g,h,i]perylene*	<0.019	0.040	0.019	mg/kg	40	09/02/21 17:51	8270C		MS
Surrogate: Nitrobenzene-d5			39.9 %	39.6-121		09/02/21 17:51	8270C		MS
Surrogate: 2-Fluorobiphenyl			36.8 %	39.8-134		09/02/21 17:51	8270C	S-04	MS
Surrogate: Terphenyl-d14			39.3 %	33.3-136		09/02/21 17:51	8270C		MS

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SS03

2108209-03 (Soil)

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

Calcium	77.8	0.100	0.058	mg/L	1	08/31/21 12:54	EPA200.7		AES
Conductivity	550			umho/cm @ 25.0°C	1	08/30/21 14:31	ASA#9 10-3.3		JDA
Magnesium	10.5	0.100	0.065	mg/L	1	08/31/21 12:54	EPA200.7		AES
pH	6.72			pH Units	1	08/30/21 14:33	ASA#9 10-3.2		JDA
SAR	0.18			No Unit	1	08/31/21 12:54	Calculation		AES
Sodium	6.25	1.00	0.079	mg/L	1	08/31/21 12:54	EPA200.7		AES

Total Metals by ICP

Barium	177	5.00	0.390	mg/kg dry	100	09/01/21 16:13	6010B		AES
Cadmium	<5.00	5.00	1.10	mg/kg dry	100	09/01/21 16:13	6010B		AES
Chromium	20.1	5.00	0.400	mg/kg dry	100	09/01/21 16:13	6010B		AES
Copper	27.1	5.00	2.39	mg/kg dry	100	09/01/21 16:13	6010B		AES
Lead	<10.0	10.0	0.906	mg/kg dry	100	09/01/21 16:13	6010B		AES
Nickel	12.6	5.00	0.874	mg/kg dry	100	09/01/21 16:13	6010B		AES
Selenium	<20.0	20.0	4.70	mg/kg dry	100	09/01/21 16:13	6010B		AES
Silver	<1.00	1.00	0.688	mg/kg dry	100	09/01/21 16:13	6010B		AES
Zinc	120	10.0	1.71	mg/kg dry	100	09/01/21 16:13	6010B		AES

Total Metals by ICPMS

Arsenic	3.78	1.00	0.0950	mg/kg dry	1000	09/02/21 13:05	6020A		AES
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Hot Water Extractable

Boron	<1.20	1.20	0.568	mg/L	4	08/30/21 12:41	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	1130	100	62.5	mg/kg	10	08/28/21 09:09	8015B		CK
DRO >C10-C28*	3660	100	42.6	mg/kg	10	08/28/21 09:09	8015B		CK
EXT DRO >C28-C36	496	100	42.6	mg/kg	10	08/28/21 09:09	8015B		CK

Surrogate: 1-Chlorooctane			103 %	44.3-133		08/28/21 09:09	8015B		CK
Surrogate: 1-Chlorooctadecane			127 %	38.9-142		08/28/21 09:09	8015B		CK

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Debbie Zufelt

Debbie Zufelt, Reports Manager

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS03

2108209-03 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Benzene*	<0.250	0.250	0.0885	mg/kg	500	08/26/21 00:49	8260B		MS
Toluene*	<0.250	0.250	0.0670	mg/kg	500	08/26/21 00:49	8260B		MS
Ethylbenzene*	4.12	0.250	0.0405	mg/kg	500	08/26/21 00:49	8260B		MS
m+p - Xylene*	<0.500	0.500	0.186	mg/kg	500	08/26/21 00:49	8260B		MS
o-Xylene*	<0.250	0.250	0.0700	mg/kg	500	08/26/21 00:49	8260B		MS
Total Xylenes*	<0.750	0.750	0.250	mg/kg	500	08/26/21 00:49	8260B		MS
1,3,5-Trimethylbenzene	<0.250	0.250	0.0450	mg/kg	500	08/26/21 00:49	8260B		MS
1,2,4-Trimethylbenzene	0.278	0.250	0.0650	mg/kg	500	08/26/21 00:49	8260B		MS
Naphthalene*	10.9	0.250	0.0500	mg/kg	500	08/26/21 00:49	8260B		MS
Surrogate: Dibromofluoromethane			104 %	84.6-114		08/26/21 00:49	8260B		MS
Surrogate: Toluene-d8			104 %	90.4-109		08/26/21 00:49	8260B		MS
Surrogate: 4-Bromofluorobenzene			177 %	82.5-117		08/26/21 00:49	8260B	S-04	MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	12.8	4.00	1.53	mg/kg	4000	09/02/21 21:43	8270C		MS
2-Methylnaphthalene*	34.7	4.00	2.26	mg/kg	4000	09/02/21 21:43	8270C		MS
1-Methylnaphthalene	29.4	4.00	1.61	mg/kg	4000	09/02/21 21:43	8270C		MS
Acenaphthylene*	<1.96	4.00	1.96	mg/kg	4000	09/02/21 21:43	8270C		MS
Acenaphthene*	<2.35	4.00	2.35	mg/kg	4000	09/02/21 21:43	8270C		MS
Fluorene*	5.40	4.00	1.42	mg/kg	4000	09/02/21 21:43	8270C		MS
Phenanthrene*	10.9	4.00	2.14	mg/kg	4000	09/02/21 21:43	8270C		MS
Anthracene*	<1.72	4.00	1.72	mg/kg	4000	09/02/21 21:43	8270C		MS
Carbazole*	<1.90	4.00	1.90	mg/kg	4000	09/02/21 21:43	8270C		MS
Fluoranthene*	<1.85	4.00	1.85	mg/kg	4000	09/02/21 21:43	8270C		MS
Pyrene*	1.80	4.00	1.32	mg/kg	4000	09/02/21 21:43	8270C	J	MS
Benzo[a]anthracene*	<2.30	4.00	2.30	mg/kg	4000	09/02/21 21:43	8270C		MS
Chrysene*	<1.72	4.00	1.72	mg/kg	4000	09/02/21 21:43	8270C		MS
Benzo[b]fluoranthene*	<1.92	4.00	1.92	mg/kg	4000	09/02/21 21:43	8270C		MS
Benzo[k]fluoranthene*	<1.57	4.00	1.57	mg/kg	4000	09/02/21 21:43	8270C		MS
Benzo[a]pyrene*	<1.82	4.00	1.82	mg/kg	4000	09/02/21 21:43	8270C		MS
Indeno[1,2,3-cd]pyrene*	<1.68	4.00	1.68	mg/kg	4000	09/02/21 21:43	8270C		MS

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Debbie Zufelt, Reports Manager

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS03

2108209-03 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Polynuclear Aromatic Compounds by GC/MS

Dibenz[a,h]anthracene*	<1.86	4.00	1.86	mg/kg	4000	09/02/21 21:43	8270C		MS
Benzo[g,h,i]perylene*	<1.86	4.00	1.86	mg/kg	4000	09/02/21 21:43	8270C		MS
Surrogate: Nitrobenzene-d5			345 %	39.6-121		09/02/21 21:43	8270C	S-06	MS
Surrogate: 2-Fluorobiphenyl			90.8 %	39.8-134		09/02/21 21:43	8270C		MS
Surrogate: Terphenyl-d14			99.7 %	33.3-136		09/02/21 21:43	8270C		MS

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS04

2108209-04 (Soil)

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

Calcium	60.0	0.100	0.058	mg/L	1	08/31/21 13:00	EPA200.7		AES
Conductivity	575			umho/cm @ 25.0°C	1	08/30/21 14:31	ASA#9 10-3.3		JDA
Magnesium	12.1	0.100	0.065	mg/L	1	08/31/21 13:00	EPA200.7		AES
pH	6.79			pH Units	1	08/30/21 14:33	ASA#9 10-3.2		JDA
SAR	1.06			No Unit	1	08/31/21 13:00	Calculation		AES
Sodium	34.5	1.00	0.079	mg/L	1	08/31/21 13:00	EPA200.7		AES

Total Metals by ICP

Barium	79.9	5.00	0.390	mg/kg dry	100	09/01/21 17:56	6010B		AES
Cadmium	<5.00	5.00	1.10	mg/kg dry	100	09/01/21 17:56	6010B		AES
Chromium	8.09	5.00	0.400	mg/kg dry	100	09/01/21 17:56	6010B		AES
Copper	11.2	5.00	2.39	mg/kg dry	100	09/01/21 17:56	6010B		AES
Lead	<10.0	10.0	0.906	mg/kg dry	100	09/01/21 17:56	6010B		AES
Nickel	6.38	5.00	0.874	mg/kg dry	100	09/01/21 17:56	6010B		AES
Selenium	<20.0	20.0	4.70	mg/kg dry	100	09/01/21 17:56	6010B		AES
Silver	<1.00	1.00	0.688	mg/kg dry	100	09/01/21 17:56	6010B		AES
Zinc	21.9	10.0	1.71	mg/kg dry	100	09/01/21 17:56	6010B		AES

Total Metals by ICPMS

Arsenic	1.71	1.00	0.0950	mg/kg dry	1000	09/02/21 13:08	6020A		AES
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Hot Water Extractable

Boron	<1.20	1.20	0.568	mg/L	4	08/30/21 12:43	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Petroleum Hydrocarbons by GC FID

S-06

GRO C6-C10*	2250	100	62.5	mg/kg	10	08/28/21 09:30	8015B		CK
DRO >C10-C28*	10300	100	42.6	mg/kg	10	08/28/21 09:30	8015B		CK
EXT DRO >C28-C36	2040	100	42.6	mg/kg	10	08/28/21 09:30	8015B		CK

Surrogate: 1-Chlorooctane			135 %	44.3-133		08/28/21 09:30	8015B		CK
Surrogate: 1-Chlorooctadecane			219 %	38.9-142		08/28/21 09:30	8015B		CK

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS04

2108209-04 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Benzene*	0.227	0.0250	0.00885	mg/kg	50	08/26/21 01:08	8260B		MS
Toluene*	0.0323	0.0250	0.00670	mg/kg	50	08/26/21 01:08	8260B		MS
Ethylbenzene*	5.81	0.500	0.0810	mg/kg	1000	08/26/21 08:16	8260B		MS
m+p - Xylene*	0.583	0.0500	0.0186	mg/kg	50	08/26/21 01:08	8260B		MS
o-Xylene*	0.204	0.0250	0.00700	mg/kg	50	08/26/21 01:08	8260B		MS
Total Xylenes*	0.787	0.0750	0.0250	mg/kg	50	08/26/21 01:08	8260B		MS
1,3,5-Trimethylbenzene	0.810	0.0250	0.00450	mg/kg	50	08/26/21 01:08	8260B		MS
1,2,4-Trimethylbenzene	25.8	0.500	0.130	mg/kg	1000	08/26/21 08:16	8260B		MS
Naphthalene*	8.46	0.0250	0.00500	mg/kg	50	08/26/21 01:08	8260B		MS
Surrogate: Dibromofluoromethane			95.7 %	84.6-114		08/26/21 01:08	8260B		MS
Surrogate: Toluene-d8			155 %	90.4-109		08/26/21 01:08	8260B	S-04	MS
Surrogate: 4-Bromofluorobenzene			320 %	82.5-117		08/26/21 01:08	8260B	S-04	MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	8.74	4.00	1.53	mg/kg	4000	09/02/21 22:12	8270C		MS
2-Methylnaphthalene*	29.4	4.00	2.26	mg/kg	4000	09/02/21 22:12	8270C		MS
1-Methylnaphthalene	25.7	4.00	1.61	mg/kg	4000	09/02/21 22:12	8270C		MS
Acenaphthylene*	<1.96	4.00	1.96	mg/kg	4000	09/02/21 22:12	8270C		MS
Acenaphthene*	<2.35	4.00	2.35	mg/kg	4000	09/02/21 22:12	8270C		MS
Fluorene*	5.08	4.00	1.42	mg/kg	4000	09/02/21 22:12	8270C		MS
Phenanthrene*	9.96	4.00	2.14	mg/kg	4000	09/02/21 22:12	8270C		MS
Anthracene*	<1.72	4.00	1.72	mg/kg	4000	09/02/21 22:12	8270C		MS
Carbazole*	<1.90	4.00	1.90	mg/kg	4000	09/02/21 22:12	8270C		MS
Fluoranthene*	<1.85	4.00	1.85	mg/kg	4000	09/02/21 22:12	8270C		MS
Pyrene*	<1.32	4.00	1.32	mg/kg	4000	09/02/21 22:12	8270C		MS
Benzo[a]anthracene*	<2.30	4.00	2.30	mg/kg	4000	09/02/21 22:12	8270C		MS
Chrysene*	<1.72	4.00	1.72	mg/kg	4000	09/02/21 22:12	8270C		MS
Benzo[b]flouranthene*	<1.92	4.00	1.92	mg/kg	4000	09/02/21 22:12	8270C		MS
Benzo[k]flouranthene*	<1.57	4.00	1.57	mg/kg	4000	09/02/21 22:12	8270C		MS
Benzo[a]pyrene*	<1.82	4.00	1.82	mg/kg	4000	09/02/21 22:12	8270C		MS
Indeno[1,2,3-cd]pyrene*	<1.68	4.00	1.68	mg/kg	4000	09/02/21 22:12	8270C		MS

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS04

2108209-04 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Polynuclear Aromatic Compounds by GC/MS

Dibenz[a,h]anthracene*	<1.86	4.00	1.86	mg/kg	4000	09/02/21 22:12	8270C		MS
Benzo[g,h,i]perylene*	<1.86	4.00	1.86	mg/kg	4000	09/02/21 22:12	8270C		MS
<i>Surrogate: Nitrobenzene-d5</i>			73.1 %	39.6-121		09/02/21 22:12	8270C		MS
<i>Surrogate: 2-Fluorobiphenyl</i>			103 %	39.8-134		09/02/21 22:12	8270C		MS
<i>Surrogate: Terphenyl-d14</i>			111 %	33.3-136		09/02/21 22:12	8270C		MS

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS05

2108209-05 (Soil)

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

Calcium	141	0.100	0.058	mg/L	1	08/31/21 13:02	EPA200.7		AES
Conductivity	990			umho/cm @ 25.0°C	1	08/30/21 14:31	ASA#9 10-3.3		JDA
Magnesium	12.0	0.100	0.065	mg/L	1	08/31/21 13:02	EPA200.7		AES
pH	6.88			pH Units	1	08/30/21 14:33	ASA#9 10-3.2		JDA
SAR	1.22			No Unit	1	08/31/21 13:02	Calculation		AES
Sodium	56.4	1.00	0.079	mg/L	1	08/31/21 13:02	EPA200.7		AES

Total Metals by ICP

Barium	178	5.00	0.390	mg/kg dry	100	09/01/21 18:06	6010B		AES
Cadmium	<5.00	5.00	1.10	mg/kg dry	100	09/01/21 18:06	6010B		AES
Chromium	25.1	5.00	0.400	mg/kg dry	100	09/01/21 18:06	6010B		AES
Copper	22.0	5.00	2.39	mg/kg dry	100	09/01/21 18:06	6010B		AES
Lead	<10.0	10.0	0.906	mg/kg dry	100	09/01/21 18:06	6010B		AES
Nickel	15.0	5.00	0.874	mg/kg dry	100	09/01/21 18:06	6010B		AES
Selenium	<20.0	20.0	4.70	mg/kg dry	100	09/01/21 18:05	6010B		AES
Silver	<1.00	1.00	0.688	mg/kg dry	100	09/01/21 18:05	6010B		AES
Zinc	73.5	10.0	1.71	mg/kg dry	100	09/01/21 18:06	6010B		AES

Total Metals by ICPMS

Arsenic	3.13	1.00	0.0950	mg/kg dry	1000	09/02/21 13:18	6020A		AES
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Hot Water Extractable

Boron	<1.20	1.20	0.568	mg/L	4	08/30/21 12:45	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	242	50.0	31.2	mg/kg	5	08/28/21 09:52	8015B		CK
DRO >C10-C28*	1660	50.0	21.3	mg/kg	5	08/28/21 09:52	8015B		CK
EXT DRO >C28-C36	400	50.0	21.3	mg/kg	5	08/28/21 09:52	8015B		CK

Surrogate: 1-Chlorooctane			89.4 %	44.3-133		08/28/21 09:52	8015B		CK
Surrogate: 1-Chlorooctadecane			99.4 %	38.9-142		08/28/21 09:52	8015B		CK

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS05

2108209-05 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Benzene*	<0.0250	0.0250	0.00885	mg/kg	50	08/26/21 08:35	8260B		MS
Toluene*	<0.0250	0.0250	0.00670	mg/kg	50	08/26/21 08:35	8260B		MS
Ethylbenzene*	0.629	0.0250	0.00405	mg/kg	50	08/26/21 08:35	8260B		MS
m+p - Xylene*	<0.0500	0.0500	0.0186	mg/kg	50	08/26/21 08:35	8260B		MS
o-Xylene*	0.120	0.0250	0.00700	mg/kg	50	08/26/21 08:35	8260B		MS
Total Xylenes*	0.164	0.0750	0.0250	mg/kg	50	08/26/21 08:35	8260B		MS
1,3,5-Trimethylbenzene	<0.0250	0.0250	0.00450	mg/kg	50	08/26/21 08:35	8260B		MS
1,2,4-Trimethylbenzene	0.0543	0.0250	0.00650	mg/kg	50	08/26/21 08:35	8260B		MS
Naphthalene*	2.33	0.0250	0.00500	mg/kg	50	08/26/21 08:35	8260B		MS
Surrogate: Dibromofluoromethane			99.5 %	84.6-114		08/26/21 08:35	8260B		MS
Surrogate: Toluene-d8			107 %	90.4-109		08/26/21 08:35	8260B		MS
Surrogate: 4-Bromofluorobenzene			219 %	82.5-117		08/26/21 08:35	8260B	S-04	MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	2.16	0.400	0.153	mg/kg	400	09/02/21 19:18	8270C		MS
2-Methylnaphthalene*	9.81	0.400	0.226	mg/kg	400	09/02/21 19:18	8270C		MS
1-Methylnaphthalene	8.68	0.400	0.161	mg/kg	400	09/02/21 19:18	8270C		MS
Acenaphthylene*	<0.196	0.400	0.196	mg/kg	400	09/02/21 19:18	8270C		MS
Acenaphthene*	0.370	0.400	0.235	mg/kg	400	09/02/21 19:18	8270C	J	MS
Fluorene*	1.75	0.400	0.142	mg/kg	400	09/02/21 19:18	8270C		MS
Phenanthrene*	3.79	0.400	0.214	mg/kg	400	09/02/21 19:18	8270C		MS
Anthracene*	<0.172	0.400	0.172	mg/kg	400	09/02/21 19:18	8270C		MS
Carbazole*	<0.190	0.400	0.190	mg/kg	400	09/02/21 19:18	8270C		MS
Fluoranthene*	0.202	0.400	0.185	mg/kg	400	09/02/21 19:18	8270C	J	MS
Pyrene*	0.441	0.400	0.132	mg/kg	400	09/02/21 19:18	8270C		MS
Benzo[a]anthracene*	<0.230	0.400	0.230	mg/kg	400	09/02/21 19:18	8270C		MS
Chrysene*	0.729	0.400	0.172	mg/kg	400	09/02/21 19:18	8270C		MS
Benzo[b]fluoranthene*	<0.192	0.400	0.192	mg/kg	400	09/02/21 19:18	8270C		MS
Benzo[k]fluoranthene*	<0.157	0.400	0.157	mg/kg	400	09/02/21 19:18	8270C		MS
Benzo[a]pyrene*	<0.182	0.400	0.182	mg/kg	400	09/02/21 19:18	8270C		MS
Indeno[1,2,3-cd]pyrene*	<0.168	0.400	0.168	mg/kg	400	09/02/21 19:18	8270C		MS

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Debbie Zufelt

Debbie Zufelt, Reports Manager

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS05

2108209-05 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Polynuclear Aromatic Compounds by GC/MS

Dibenz[a,h]anthracene*	<0.186	0.400	0.186	mg/kg	400	09/02/21 19:18	8270C		MS
Benzo[g,h,i]perylene*	<0.186	0.400	0.186	mg/kg	400	09/02/21 19:18	8270C		MS
Surrogate: Nitrobenzene-d5			120 %	39.6-121		09/02/21 19:18	8270C		MS
Surrogate: 2-Fluorobiphenyl			85.1 %	39.8-134		09/02/21 19:18	8270C		MS
Surrogate: Terphenyl-d14			92.3 %	33.3-136		09/02/21 19:18	8270C		MS

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS06

2108209-06 (Soil)

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

Calcium	91.2	0.100	0.058	mg/L	1	08/31/21 13:04	EPA200.7		AES
Conductivity	604			umho/cm @ 25.0°C	1	08/30/21 14:31	ASA#9 10-3.3		JDA
Magnesium	11.7	0.100	0.065	mg/L	1	08/31/21 13:04	EPA200.7		AES
pH	7.45			pH Units	1	08/30/21 14:33	ASA#9 10-3.2		JDA
SAR	0.54			No Unit	1	08/31/21 13:04	Calculation		AES
Sodium	20.7	1.00	0.079	mg/L	1	08/31/21 13:04	EPA200.7		AES

Total Metals by ICP

Barium	182	5.00	0.390	mg/kg dry	100	09/01/21 18:09	6010B		AES
Cadmium	<5.00	5.00	1.10	mg/kg dry	100	09/01/21 18:09	6010B		AES
Chromium	94.9	5.00	0.400	mg/kg dry	100	09/01/21 18:09	6010B		AES
Copper	38.7	5.00	2.39	mg/kg dry	100	09/01/21 18:09	6010B		AES
Lead	<10.0	10.0	0.906	mg/kg dry	100	09/01/21 18:09	6010B		AES
Nickel	46.3	5.00	0.874	mg/kg dry	100	09/01/21 18:09	6010B		AES
Selenium	<20.0	20.0	4.70	mg/kg dry	100	09/01/21 18:09	6010B		AES
Silver	<1.00	1.00	0.688	mg/kg dry	100	09/01/21 18:09	6010B		AES
Zinc	79.3	10.0	1.71	mg/kg dry	100	09/01/21 18:09	6010B		AES

Total Metals by ICPMS

Arsenic	2.95	1.00	0.0950	mg/kg dry	1000	09/02/21 13:22	6020A		AES
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Hot Water Extractable

Boron	<1.20	1.20	0.568	mg/L	4	08/30/21 12:47	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<50.0	50.0	31.2	mg/kg	5	08/28/21 10:13	8015B		CK
DRO >C10-C28*	143	50.0	21.3	mg/kg	5	08/28/21 10:13	8015B		CK
EXT DRO >C28-C36	235	50.0	21.3	mg/kg	5	08/28/21 10:13	8015B		CK

Surrogate: 1-Chlorooctane			75.5 %	44.3-133		08/28/21 10:13	8015B		CK
Surrogate: 1-Chlorooctadecane			70.9 %	38.9-142		08/28/21 10:13	8015B		CK

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS06

2108209-06 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Benzene*	<0.0250	0.0250	0.00885	mg/kg	50	08/26/21 01:48	8260B		MS
Toluene*	<0.0250	0.0250	0.00670	mg/kg	50	08/26/21 01:48	8260B		MS
Ethylbenzene*	<0.0250	0.0250	0.00405	mg/kg	50	08/26/21 01:48	8260B		MS
m+p - Xylene*	<0.0500	0.0500	0.0186	mg/kg	50	08/26/21 01:48	8260B		MS
o-Xylene*	<0.0250	0.0250	0.00700	mg/kg	50	08/26/21 01:48	8260B		MS
Total Xylenes*	<0.0750	0.0750	0.0250	mg/kg	50	08/26/21 01:48	8260B		MS
1,3,5-Trimethylbenzene	<0.0250	0.0250	0.00450	mg/kg	50	08/26/21 01:48	8260B		MS
1,2,4-Trimethylbenzene	<0.0250	0.0250	0.00650	mg/kg	50	08/26/21 01:48	8260B		MS
Naphthalene*	0.0411	0.0250	0.00500	mg/kg	50	08/26/21 01:48	8260B		MS
Surrogate: Dibromofluoromethane			99.3 %	84.6-114		08/26/21 01:48	8260B		MS
Surrogate: Toluene-d8			100 %	90.4-109		08/26/21 01:48	8260B		MS
Surrogate: 4-Bromofluorobenzene			106 %	82.5-117		08/26/21 01:48	8260B		MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	<0.153	0.400	0.153	mg/kg	400	09/07/21 11:54	8270C		MS
2-Methylnaphthalene*	<0.226	0.400	0.226	mg/kg	400	09/07/21 11:54	8270C		MS
1-Methylnaphthalene	<0.161	0.400	0.161	mg/kg	400	09/07/21 11:54	8270C		MS
Acenaphthylene*	<0.196	0.400	0.196	mg/kg	400	09/07/21 11:54	8270C		MS
Acenaphthene*	<0.235	0.400	0.235	mg/kg	400	09/07/21 11:54	8270C		MS
Fluorene*	<0.142	0.400	0.142	mg/kg	400	09/07/21 11:54	8270C		MS
Phenanthrene*	<0.214	0.400	0.214	mg/kg	400	09/07/21 11:54	8270C		MS
Anthracene*	<0.172	0.400	0.172	mg/kg	400	09/07/21 11:54	8270C		MS
Carbazole*	<0.190	0.400	0.190	mg/kg	400	09/07/21 11:54	8270C		MS
Fluoranthene*	<0.185	0.400	0.185	mg/kg	400	09/07/21 11:54	8270C		MS
Pyrene*	<0.132	0.400	0.132	mg/kg	400	09/07/21 11:54	8270C		MS
Benzo[a]anthracene*	<0.230	0.400	0.230	mg/kg	400	09/07/21 11:54	8270C		MS
Chrysene*	<0.172	0.400	0.172	mg/kg	400	09/07/21 11:54	8270C		MS
Benzo[b]fluoranthene*	<0.192	0.400	0.192	mg/kg	400	09/07/21 11:54	8270C		MS
Benzo[k]fluoranthene*	<0.157	0.400	0.157	mg/kg	400	09/07/21 11:54	8270C		MS
Benzo[a]pyrene*	<0.182	0.400	0.182	mg/kg	400	09/07/21 11:54	8270C		MS
Indeno[1,2,3-cd]pyrene*	<0.168	0.400	0.168	mg/kg	400	09/07/21 11:54	8270C		MS

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS06

2108209-06 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Polynuclear Aromatic Compounds by GC/MS

Dibenz[a,h]anthracene*	<0.186	0.400	0.186	mg/kg	400	09/07/21 11:54	8270C		MS
Benzo[g,h,i]perylene*	0.249	0.400	0.186	mg/kg	400	09/07/21 11:54	8270C	J	MS
Surrogate: Nitrobenzene-d5			92.4 %	39.6-121		09/07/21 11:54	8270C		MS
Surrogate: 2-Fluorobiphenyl			87.1 %	39.8-134		09/07/21 11:54	8270C		MS
Surrogate: Terphenyl-d14			95.4 %	33.3-136		09/07/21 11:54	8270C		MS

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS07

2108209-07 (Soil)

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

Calcium	65.6	0.100	0.058	mg/L	1	08/31/21 13:06	EPA200.7		AES
Conductivity	450			umho/cm @ 25.0°C	1	08/30/21 14:31	ASA#9 10-3.3		JDA
Magnesium	7.37	0.100	0.065	mg/L	1	08/31/21 13:06	EPA200.7		AES
pH	7.39			pH Units	1	08/30/21 14:33	ASA#9 10-3.2		JDA
SAR	0.64			No Unit	1	08/31/21 13:06	Calculation		AES
Sodium	20.6	1.00	0.079	mg/L	1	08/31/21 13:06	EPA200.7		AES

Total Metals by ICP

Barium	73.1	5.00	0.390	mg/kg dry	100	09/01/21 18:13	6010B		AES
Cadmium	<5.00	5.00	1.10	mg/kg dry	100	09/01/21 18:13	6010B		AES
Chromium	88.4	5.00	0.400	mg/kg dry	100	09/01/21 18:13	6010B		AES
Copper	25.5	5.00	2.39	mg/kg dry	100	09/01/21 18:13	6010B		AES
Lead	<10.0	10.0	0.906	mg/kg dry	100	09/01/21 18:13	6010B		AES
Nickel	39.7	5.00	0.874	mg/kg dry	100	09/01/21 18:13	6010B		AES
Selenium	<20.0	20.0	4.70	mg/kg dry	100	09/01/21 18:13	6010B		AES
Silver	<1.00	1.00	0.688	mg/kg dry	100	09/01/21 18:13	6010B		AES
Zinc	32.2	10.0	1.71	mg/kg dry	100	09/01/21 18:13	6010B		AES

Total Metals by ICPMS

Arsenic	1.54	1.00	0.0950	mg/kg dry	1000	09/02/21 13:25	6020A		AES
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Hot Water Extractable

Boron	<1.20	1.20	0.568	mg/L	4	08/30/21 12:50	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<50.0	50.0	31.2	mg/kg	5	08/28/21 10:35	8015B		CK
DRO >C10-C28*	832	50.0	21.3	mg/kg	5	08/28/21 10:35	8015B		CK
EXT DRO >C28-C36	755	50.0	21.3	mg/kg	5	08/28/21 10:35	8015B		CK

Surrogate: 1-Chlorooctane			88.7 %	44.3-133		08/28/21 10:35	8015B		CK
Surrogate: 1-Chlorooctadecane			100 %	38.9-142		08/28/21 10:35	8015B		CK

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS07

2108209-07 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Benzene*	<0.0250	0.0250	0.00885	mg/kg	50	08/26/21 02:07	8260B		MS
Toluene*	<0.0250	0.0250	0.00670	mg/kg	50	08/26/21 02:07	8260B		MS
Ethylbenzene*	<0.0250	0.0250	0.00405	mg/kg	50	08/26/21 02:07	8260B		MS
m+p - Xylene*	<0.0500	0.0500	0.0186	mg/kg	50	08/26/21 02:07	8260B		MS
o-Xylene*	<0.0250	0.0250	0.00700	mg/kg	50	08/26/21 02:07	8260B		MS
Total Xylenes*	<0.0750	0.0750	0.0250	mg/kg	50	08/26/21 02:07	8260B		MS
1,3,5-Trimethylbenzene	<0.0250	0.0250	0.00450	mg/kg	50	08/26/21 02:07	8260B		MS
1,2,4-Trimethylbenzene	<0.0250	0.0250	0.00650	mg/kg	50	08/26/21 02:07	8260B		MS
Naphthalene*	<0.0250	0.0250	0.00500	mg/kg	50	08/26/21 02:07	8260B		MS
Surrogate: Dibromofluoromethane			99.9 %	84.6-114		08/26/21 02:07	8260B		MS
Surrogate: Toluene-d8			99.3 %	90.4-109		08/26/21 02:07	8260B		MS
Surrogate: 4-Bromofluorobenzene			99.5 %	82.5-117		08/26/21 02:07	8260B		MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	<0.153	0.400	0.153	mg/kg	400	09/07/21 12:23	8270C		MS
2-Methylnaphthalene*	<0.226	0.400	0.226	mg/kg	400	09/07/21 12:23	8270C		MS
1-Methylnaphthalene	<0.161	0.400	0.161	mg/kg	400	09/07/21 12:23	8270C		MS
Acenaphthylene*	<0.196	0.400	0.196	mg/kg	400	09/07/21 12:23	8270C		MS
Acenaphthene*	<0.235	0.400	0.235	mg/kg	400	09/07/21 12:23	8270C		MS
Fluorene*	<0.142	0.400	0.142	mg/kg	400	09/07/21 12:23	8270C		MS
Phenanthrene*	<0.214	0.400	0.214	mg/kg	400	09/07/21 12:23	8270C		MS
Anthracene*	<0.172	0.400	0.172	mg/kg	400	09/07/21 12:23	8270C		MS
Carbazole*	<0.190	0.400	0.190	mg/kg	400	09/07/21 12:23	8270C		MS
Fluoranthene*	<0.185	0.400	0.185	mg/kg	400	09/07/21 12:23	8270C		MS
Pyrene*	<0.132	0.400	0.132	mg/kg	400	09/07/21 12:23	8270C		MS
Benzo[a]anthracene*	<0.230	0.400	0.230	mg/kg	400	09/07/21 12:23	8270C		MS
Chrysene*	<0.172	0.400	0.172	mg/kg	400	09/07/21 12:23	8270C		MS
Benzo[b]fluoranthene*	<0.192	0.400	0.192	mg/kg	400	09/07/21 12:23	8270C		MS
Benzo[k]fluoranthene*	<0.157	0.400	0.157	mg/kg	400	09/07/21 12:23	8270C		MS
Benzo[a]pyrene*	<0.182	0.400	0.182	mg/kg	400	09/07/21 12:23	8270C		MS

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS07

2108209-07 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Polynuclear Aromatic Compounds by GC/MS

Indeno[1,2,3-cd]pyrene*	<0.168	0.400	0.168	mg/kg	400	09/07/21 12:23	8270C		MS
Dibenz[a,h]anthracene*	<0.186	0.400	0.186	mg/kg	400	09/07/21 12:23	8270C		MS
Benzo[g,h,i]perylene*	0.198	0.400	0.186	mg/kg	400	09/07/21 12:23	8270C	J	MS
Surrogate: Nitrobenzene-d5			61.9 %	39.6-121		09/07/21 12:23	8270C		MS
Surrogate: 2-Fluorobiphenyl			58.2 %	39.8-134		09/07/21 12:23	8270C		MS
Surrogate: Terphenyl-d14			66.6 %	33.3-136		09/07/21 12:23	8270C		MS

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS08

2108209-08 (Soil)

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

Calcium	75.1	0.100	0.058	mg/L	1	08/31/21 13:08	EPA200.7		AES
Conductivity	530			umho/cm @ 25.0°C	1	08/30/21 14:31	ASA#9 10-3.3		JDA
Magnesium	9.97	0.100	0.065	mg/L	1	08/31/21 13:08	EPA200.7		AES
pH	7.56			pH Units	1	08/30/21 14:33	ASA#9 10-3.2		JDA
SAR	0.49			No Unit	1	08/31/21 13:08	Calculation		AES
Sodium	17.1	1.00	0.079	mg/L	1	08/31/21 13:08	EPA200.7		AES

Total Metals by ICP

Barium	719	5.00	0.390	mg/kg dry	100	09/01/21 18:17	6010B		AES
Cadmium	<5.00	5.00	1.10	mg/kg dry	100	09/01/21 18:17	6010B		AES
Chromium	50.2	5.00	0.400	mg/kg dry	100	09/01/21 18:17	6010B		AES
Copper	64.3	5.00	2.39	mg/kg dry	100	09/01/21 18:17	6010B		AES
Lead	10.2	10.0	0.906	mg/kg dry	100	09/01/21 18:17	6010B		AES
Nickel	25.5	5.00	0.874	mg/kg dry	100	09/01/21 18:17	6010B		AES
Selenium	<20.0	20.0	4.70	mg/kg dry	100	09/01/21 18:17	6010B		AES
Silver	<1.00	1.00	0.688	mg/kg dry	100	09/01/21 18:17	6010B		AES
Zinc	104	10.0	1.71	mg/kg dry	100	09/01/21 18:17	6010B		AES

Total Metals by ICPMS

Arsenic	5.09	1.00	0.0950	mg/kg dry	1000	09/02/21 13:29	6020A		AES
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Hot Water Extractable

Boron	<1.20	1.20	0.568	mg/L	4	08/30/21 12:54	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0	10.0	6.25	mg/kg	1	08/29/21 13:15	8015B		CK
DRO >C10-C28*	15.5	10.0	4.26	mg/kg	1	08/29/21 13:15	8015B		CK
EXT DRO >C28-C36	<10.0	10.0	4.26	mg/kg	1	08/29/21 13:15	8015B		CK

Surrogate: 1-Chlorooctane			76.7 %	44.3-133		08/29/21 13:15	8015B		CK
Surrogate: 1-Chlorooctadecane			72.4 %	38.9-142		08/29/21 13:15	8015B		CK

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Debbie Zufelt

Debbie Zufelt, Reports Manager

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS08

2108209-08 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Benzene*	<0.0250	0.0250	0.00885	mg/kg	50	08/26/21 02:27	8260B		MS
Toluene*	<0.0250	0.0250	0.00670	mg/kg	50	08/26/21 02:27	8260B		MS
Ethylbenzene*	<0.0250	0.0250	0.00405	mg/kg	50	08/26/21 02:27	8260B		MS
m+p - Xylene*	<0.0500	0.0500	0.0186	mg/kg	50	08/26/21 02:27	8260B		MS
o-Xylene*	<0.0250	0.0250	0.00700	mg/kg	50	08/26/21 02:27	8260B		MS
Total Xylenes*	<0.0750	0.0750	0.0250	mg/kg	50	08/26/21 02:27	8260B		MS
1,3,5-Trimethylbenzene	<0.0250	0.0250	0.00450	mg/kg	50	08/26/21 02:27	8260B		MS
1,2,4-Trimethylbenzene	<0.0250	0.0250	0.00650	mg/kg	50	08/26/21 02:27	8260B		MS
Naphthalene*	<0.0250	0.0250	0.00500	mg/kg	50	08/26/21 02:27	8260B		MS
Surrogate: Dibromofluoromethane			99.1 %	84.6-114		08/26/21 02:27	8260B		MS
Surrogate: Toluene-d8			101 %	90.4-109		08/26/21 02:27	8260B		MS
Surrogate: 4-Bromofluorobenzene			99.2 %	82.5-117		08/26/21 02:27	8260B		MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	0.019	0.040	0.015	mg/kg	40	09/07/21 12:52	8270C	J	MS
2-Methylnaphthalene*	0.066	0.040	0.023	mg/kg	40	09/07/21 12:52	8270C		MS
1-Methylnaphthalene	0.068	0.040	0.016	mg/kg	40	09/07/21 12:52	8270C		MS
Acenaphthylene*	<0.020	0.040	0.020	mg/kg	40	09/07/21 12:52	8270C		MS
Acenaphthene*	<0.024	0.040	0.024	mg/kg	40	09/07/21 12:52	8270C		MS
Fluorene*	0.014	0.040	0.014	mg/kg	40	09/07/21 12:52	8270C	J	MS
Phenanthrene*	0.045	0.040	0.021	mg/kg	40	09/07/21 12:52	8270C		MS
Anthracene*	<0.017	0.040	0.017	mg/kg	40	09/07/21 12:52	8270C		MS
Carbazole*	<0.019	0.040	0.019	mg/kg	40	09/07/21 12:52	8270C		MS
Fluoranthene*	<0.019	0.040	0.019	mg/kg	40	09/07/21 12:52	8270C		MS
Pyrene*	<0.013	0.040	0.013	mg/kg	40	09/07/21 12:52	8270C		MS
Benzo[a]anthracene*	<0.023	0.040	0.023	mg/kg	40	09/07/21 12:52	8270C		MS
Chrysene*	<0.017	0.040	0.017	mg/kg	40	09/07/21 12:52	8270C		MS
Benzo[b]fluoranthene*	<0.019	0.040	0.019	mg/kg	40	09/07/21 12:52	8270C		MS
Benzo[k]fluoranthene*	<0.016	0.040	0.016	mg/kg	40	09/07/21 12:52	8270C		MS
Benzo[a]pyrene*	<0.018	0.040	0.018	mg/kg	40	09/07/21 12:52	8270C		MS
Indeno[1,2,3-cd]pyrene*	<0.017	0.040	0.017	mg/kg	40	09/07/21 12:52	8270C		MS

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS08

2108209-08 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Polynuclear Aromatic Compounds by GC/MS

Dibenz[a,h]anthracene*	<0.019	0.040	0.019	mg/kg	40	09/07/21 12:52	8270C		MS
Benzo[g,h,i]perylene*	<0.019	0.040	0.019	mg/kg	40	09/07/21 12:52	8270C		MS
<i>Surrogate: Nitrobenzene-d5</i>			50.1 %	39.6-121		09/07/21 12:52	8270C		MS
<i>Surrogate: 2-Fluorobiphenyl</i>			49.4 %	39.8-134		09/07/21 12:52	8270C		MS
<i>Surrogate: Terphenyl-d14</i>			56.2 %	33.3-136		09/07/21 12:52	8270C		MS

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS09

2108209-09 (Soil)

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

Calcium	173	0.100	0.058	mg/L	1	08/31/21 13:10	EPA200.7		AES
Conductivity	1150			umho/cm @ 25.0°C	1	08/30/21 14:31	ASA#9 10-3.3		JDA
Magnesium	24.2	0.100	0.065	mg/L	1	08/31/21 13:10	EPA200.7		AES
pH	6.74			pH Units	1	08/30/21 14:33	ASA#9 10-3.2		JDA
SAR	0.65			No Unit	1	08/31/21 13:10	Calculation		AES
Sodium	34.4	1.00	0.079	mg/L	1	08/31/21 13:10	EPA200.7		AES

Total Metals by ICP

Barium	121	5.00	0.390	mg/kg dry	100	09/01/21 18:21	6010B		AES
Cadmium	<5.00	5.00	1.10	mg/kg dry	100	09/01/21 18:21	6010B		AES
Chromium	30.8	5.00	0.400	mg/kg dry	100	09/01/21 18:21	6010B		AES
Copper	28.6	5.00	2.39	mg/kg dry	100	09/01/21 18:21	6010B		AES
Lead	<10.0	10.0	0.906	mg/kg dry	100	09/01/21 18:21	6010B		AES
Nickel	15.8	5.00	0.874	mg/kg dry	100	09/01/21 18:21	6010B		AES
Selenium	<20.0	20.0	4.70	mg/kg dry	100	09/01/21 18:21	6010B		AES
Silver	<1.00	1.00	0.688	mg/kg dry	100	09/01/21 18:21	6010B		AES
Zinc	46.5	10.0	1.71	mg/kg dry	100	09/01/21 18:21	6010B		AES

Total Metals by ICPMS

Arsenic	4.72	1.00	0.0950	mg/kg dry	1000	09/02/21 13:32	6020A		AES
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Hot Water Extractable

Boron	<1.20	1.20	0.568	mg/L	4	08/30/21 13:00	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Petroleum Hydrocarbons by GC FID

S-06

GRO C6-C10*	65.1	50.0	31.2	mg/kg	5	08/29/21 20:47	8015B		CK
DRO >C10-C28*	6960	50.0	21.3	mg/kg	5	08/29/21 20:47	8015B		CK
EXT DRO >C28-C36	3090	50.0	21.3	mg/kg	5	08/29/21 20:47	8015B		CK

Surrogate: 1-Chlorooctane			72.7 %	44.3-133		08/29/21 20:47	8015B		CK
Surrogate: 1-Chlorooctadecane			228 %	38.9-142		08/29/21 20:47	8015B		CK

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS09

2108209-09 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Benzene*	<0.0250	0.0250	0.00885	mg/kg	50	08/26/21 02:47	8260B		MS
Toluene*	<0.0250	0.0250	0.00670	mg/kg	50	08/26/21 02:47	8260B		MS
Ethylbenzene*	<0.0250	0.0250	0.00405	mg/kg	50	08/26/21 02:47	8260B		MS
m+p - Xylene*	<0.0500	0.0500	0.0186	mg/kg	50	08/26/21 02:47	8260B		MS
o-Xylene*	<0.0250	0.0250	0.00700	mg/kg	50	08/26/21 02:47	8260B		MS
Total Xylenes*	<0.0750	0.0750	0.0250	mg/kg	50	08/26/21 02:47	8260B		MS
1,3,5-Trimethylbenzene	0.186	0.0250	0.00450	mg/kg	50	08/26/21 02:47	8260B		MS
1,2,4-Trimethylbenzene	0.0341	0.0250	0.00650	mg/kg	50	08/26/21 02:47	8260B		MS
Naphthalene*	0.0835	0.0250	0.00500	mg/kg	50	08/26/21 02:47	8260B		MS
Surrogate: Dibromofluoromethane			98.4 %	84.6-114		08/26/21 02:47	8260B		MS
Surrogate: Toluene-d8			100 %	90.4-109		08/26/21 02:47	8260B		MS
Surrogate: 4-Bromofluorobenzene			135 %	82.5-117		08/26/21 02:47	8260B	S-04	MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	<0.153	0.400	0.153	mg/kg	400	09/07/21 13:21	8270C		MS
2-Methylnaphthalene*	<0.226	0.400	0.226	mg/kg	400	09/07/21 13:21	8270C		MS
1-Methylnaphthalene	0.239	0.400	0.161	mg/kg	400	09/07/21 13:21	8270C	J	MS
Acenaphthylene*	<0.196	0.400	0.196	mg/kg	400	09/07/21 13:21	8270C		MS
Acenaphthene*	<0.235	0.400	0.235	mg/kg	400	09/07/21 13:21	8270C		MS
Fluorene*	<0.142	0.400	0.142	mg/kg	400	09/07/21 13:21	8270C		MS
Phenanthrene*	0.377	0.400	0.214	mg/kg	400	09/07/21 13:21	8270C	J	MS
Anthracene*	<0.172	0.400	0.172	mg/kg	400	09/07/21 13:21	8270C		MS
Carbazole*	<0.190	0.400	0.190	mg/kg	400	09/07/21 13:21	8270C		MS
Fluoranthene*	<0.185	0.400	0.185	mg/kg	400	09/07/21 13:21	8270C		MS
Pyrene*	1.17	0.400	0.132	mg/kg	400	09/07/21 13:21	8270C		MS
Benzo[a]anthracene*	<0.230	0.400	0.230	mg/kg	400	09/07/21 13:21	8270C		MS
Chrysene*	1.96	0.400	0.172	mg/kg	400	09/07/21 13:21	8270C		MS
Benzo[b]fluoranthene*	0.693	0.400	0.192	mg/kg	400	09/07/21 13:21	8270C		MS
Benzo[k]fluoranthene*	<0.157	0.400	0.157	mg/kg	400	09/07/21 13:21	8270C		MS
Benzo[a]pyrene*	<0.182	0.400	0.182	mg/kg	400	09/07/21 13:21	8270C		MS
Indeno[1,2,3-cd]pyrene*	<0.168	0.400	0.168	mg/kg	400	09/07/21 13:21	8270C		MS

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS09

2108209-09 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Polynuclear Aromatic Compounds by GC/MS

Dibenz[a,h]anthracene*	<0.186	0.400	0.186	mg/kg	400	09/07/21 13:21	8270C		MS
Benzo[g,h,i]perylene*	0.590	0.400	0.186	mg/kg	400	09/07/21 13:21	8270C		MS
Surrogate: Nitrobenzene-d5			82.1 %	39.6-121		09/07/21 13:21	8270C		MS
Surrogate: 2-Fluorobiphenyl			74.2 %	39.8-134		09/07/21 13:21	8270C		MS
Surrogate: Terphenyl-d14			99.4 %	33.3-136		09/07/21 13:21	8270C		MS

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS10

2108209-10 (Soil)

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

Calcium	201	0.500	0.289	mg/L	5	08/31/21 13:12	EPA200.7		AES
Conductivity	1520			umho/cm @ 25.0°C	1	08/30/21 14:31	ASA#9 10-3.3		JDA
Magnesium	18.3	0.500	0.327	mg/L	5	08/31/21 13:12	EPA200.7		AES
pH	6.47			pH Units	1	08/30/21 14:33	ASA#9 10-3.2		JDA
SAR	1.69			No Unit	1	08/31/21 13:12	Calculation		AES
Sodium	93.2	5.00	0.396	mg/L	5	08/31/21 13:12	EPA200.7		AES

Total Metals by ICP

Barium	158	5.00	0.390	mg/kg dry	100	09/01/21 18:25	6010B		AES
Cadmium	<5.00	5.00	1.10	mg/kg dry	100	09/01/21 18:25	6010B		AES
Chromium	98.5	5.00	0.400	mg/kg dry	100	09/01/21 18:25	6010B		AES
Copper	111	5.00	2.39	mg/kg dry	100	09/01/21 18:25	6010B		AES
Lead	23.0	10.0	0.906	mg/kg dry	100	09/01/21 18:25	6010B		AES
Nickel	47.0	5.00	0.874	mg/kg dry	100	09/01/21 18:25	6010B		AES
Selenium	<20.0	20.0	4.70	mg/kg dry	100	09/01/21 18:25	6010B		AES
Silver	<1.00	1.00	0.688	mg/kg dry	100	09/01/21 18:25	6010B		AES
Zinc	240	10.0	1.71	mg/kg dry	100	09/01/21 18:25	6010B		AES

Total Metals by ICPMS

Arsenic	10.3	1.00	0.0950	mg/kg dry	1000	09/02/21 13:35	6020A		AES
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Hot Water Extractable

Boron	<1.20	1.20	0.568	mg/L	4	08/30/21 13:04	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Petroleum Hydrocarbons by GC FID

S-06

GRO C6-C10*	<50.0	50.0	31.2	mg/kg	5	08/29/21 22:39	8015B		CK
DRO >C10-C28*	9460	50.0	21.3	mg/kg	5	08/29/21 22:39	8015B		CK
EXT DRO >C28-C36	5140	50.0	21.3	mg/kg	5	08/29/21 22:39	8015B		CK

Surrogate: 1-Chlorooctane			75.4 %	44.3-133		08/29/21 22:39	8015B		CK
Surrogate: 1-Chlorooctadecane			302 %	38.9-142		08/29/21 22:39	8015B		CK

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS10

2108209-10 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Benzene*	<0.0250	0.0250	0.00885	mg/kg	50	08/26/21 03:07	8260B		MS
Toluene*	<0.0250	0.0250	0.00670	mg/kg	50	08/26/21 03:07	8260B		MS
Ethylbenzene*	<0.0250	0.0250	0.00405	mg/kg	50	08/26/21 03:07	8260B		MS
m+p - Xylene*	<0.0500	0.0500	0.0186	mg/kg	50	08/26/21 03:07	8260B		MS
o-Xylene*	<0.0250	0.0250	0.00700	mg/kg	50	08/26/21 03:07	8260B		MS
Total Xylenes*	<0.0750	0.0750	0.0250	mg/kg	50	08/26/21 03:07	8260B		MS
1,3,5-Trimethylbenzene	<0.0250	0.0250	0.00450	mg/kg	50	08/26/21 03:07	8260B		MS
1,2,4-Trimethylbenzene	<0.0250	0.0250	0.00650	mg/kg	50	08/26/21 03:07	8260B		MS
Naphthalene*	0.0395	0.0250	0.00500	mg/kg	50	08/26/21 03:07	8260B		MS
Surrogate: Dibromofluoromethane			101 %	84.6-114		08/26/21 03:07	8260B		MS
Surrogate: Toluene-d8			97.9 %	90.4-109		08/26/21 03:07	8260B		MS
Surrogate: 4-Bromofluorobenzene			115 %	82.5-117		08/26/21 03:07	8260B		MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	<0.153	0.400	0.153	mg/kg	400	09/07/21 13:49	8270C		MS
2-Methylnaphthalene*	<0.226	0.400	0.226	mg/kg	400	09/07/21 13:49	8270C		MS
1-Methylnaphthalene	0.415	0.400	0.161	mg/kg	400	09/07/21 13:49	8270C		MS
Acenaphthylene*	<0.196	0.400	0.196	mg/kg	400	09/07/21 13:49	8270C		MS
Acenaphthene*	<0.235	0.400	0.235	mg/kg	400	09/07/21 13:49	8270C		MS
Fluorene*	<0.142	0.400	0.142	mg/kg	400	09/07/21 13:49	8270C		MS
Phenanthrene*	0.871	0.400	0.214	mg/kg	400	09/07/21 13:49	8270C		MS
Anthracene*	<0.172	0.400	0.172	mg/kg	400	09/07/21 13:49	8270C		MS
Carbazole*	<0.190	0.400	0.190	mg/kg	400	09/07/21 13:49	8270C		MS
Fluoranthene*	<0.185	0.400	0.185	mg/kg	400	09/07/21 13:49	8270C		MS
Pyrene*	1.99	0.400	0.132	mg/kg	400	09/07/21 13:49	8270C		MS
Benzo[a]anthracene*	<0.230	0.400	0.230	mg/kg	400	09/07/21 13:49	8270C		MS
Chrysene*	2.98	0.400	0.172	mg/kg	400	09/07/21 13:49	8270C		MS
Benzo[b]fluoranthene*	<0.192	0.400	0.192	mg/kg	400	09/07/21 13:49	8270C		MS
Benzo[k]fluoranthene*	<0.157	0.400	0.157	mg/kg	400	09/07/21 13:49	8270C		MS
Benzo[a]pyrene*	<0.182	0.400	0.182	mg/kg	400	09/07/21 13:49	8270C		MS
Indeno[1,2,3-cd]pyrene*	<0.168	0.400	0.168	mg/kg	400	09/07/21 13:49	8270C		MS

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Debbie Zufelt, Reports Manager

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS10

2108209-10 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Polynuclear Aromatic Compounds by GC/MS

Dibenz[a,h]anthracene*	<0.186	0.400	0.186	mg/kg	400	09/07/21 13:49	8270C		MS
Benzo[g,h,i]perylene*	0.871	0.400	0.186	mg/kg	400	09/07/21 13:49	8270C		MS
Surrogate: Nitrobenzene-d5			92.5 %	39.6-121		09/07/21 13:49	8270C		MS
Surrogate: 2-Fluorobiphenyl			80.7 %	39.8-134		09/07/21 13:49	8270C		MS
Surrogate: Terphenyl-d14			85.7 %	33.3-136		09/07/21 13:49	8270C		MS

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS11

2108209-11 (Soil)

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

Calcium	115	0.100	0.058	mg/L	1	08/31/21 13:14	EPA200.7		AES
Conductivity	455			umho/cm @ 25.0°C	1	08/30/21 14:31	ASA#9 10-3.3		JDA
Magnesium	9.68	0.100	0.065	mg/L	1	08/31/21 13:14	EPA200.7		AES
pH	6.85			pH Units	1	08/30/21 14:33	ASA#9 10-3.2		JDA
SAR	0.26			No Unit	1	08/31/21 13:14	Calculation		AES
Sodium	11.0	1.00	0.079	mg/L	1	08/31/21 13:14	EPA200.7		AES

Total Metals by ICP

Barium	103	5.00	0.390	mg/kg dry	100	09/01/21 18:32	6010B		AES
Cadmium	<5.00	5.00	1.10	mg/kg dry	100	09/01/21 18:32	6010B		AES
Chromium	45.9	5.00	0.400	mg/kg dry	100	09/01/21 18:32	6010B		AES
Copper	292	5.00	2.39	mg/kg dry	100	09/01/21 18:32	6010B		AES
Lead	30.5	10.0	0.906	mg/kg dry	100	09/02/21 15:18	6010B		AES
Nickel	22.5	5.00	0.874	mg/kg dry	100	09/01/21 18:32	6010B		AES
Selenium	<20.0	20.0	4.70	mg/kg dry	100	09/01/21 18:32	6010B		AES
Silver	<1.00	1.00	0.688	mg/kg dry	100	09/01/21 18:32	6010B		AES
Zinc	288	10.0	1.71	mg/kg dry	100	09/02/21 15:18	6010B		AES

Total Metals by ICPMS

Arsenic	9.32	1.00	0.0950	mg/kg dry	1000	09/02/21 13:39	6020A		AES
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Hot Water Extractable

Boron	<1.20	1.20	0.568	mg/L	4	08/30/21 13:05	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Petroleum Hydrocarbons by GC FID

S-06

GRO C6-C10*	83.9	50.0	31.2	mg/kg	5	08/29/21 21:44	8015B		CK
DRO >C10-C28*	8240	50.0	21.3	mg/kg	5	08/29/21 21:44	8015B		CK
EXT DRO >C28-C36	3380	50.0	21.3	mg/kg	5	08/29/21 21:44	8015B		CK

Surrogate: 1-Chlorooctane			76.2 %	44.3-133		08/29/21 21:44	8015B		CK
Surrogate: 1-Chlorooctadecane			316 %	38.9-142		08/29/21 21:44	8015B		CK

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS11

2108209-11 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Benzene*	<0.0250	0.0250	0.00885	mg/kg	50	08/26/21 03:27	8260B		MS
Toluene*	<0.0250	0.0250	0.00670	mg/kg	50	08/26/21 03:27	8260B		MS
Ethylbenzene*	<0.0250	0.0250	0.00405	mg/kg	50	08/26/21 03:27	8260B		MS
m+p - Xylene*	<0.0500	0.0500	0.0186	mg/kg	50	08/26/21 03:27	8260B		MS
o-Xylene*	<0.0250	0.0250	0.00700	mg/kg	50	08/26/21 03:27	8260B		MS
Total Xylenes*	<0.0750	0.0750	0.0250	mg/kg	50	08/26/21 03:27	8260B		MS
1,3,5-Trimethylbenzene	0.187	0.0250	0.00450	mg/kg	50	08/26/21 03:27	8260B		MS
1,2,4-Trimethylbenzene	<0.0250	0.0250	0.00650	mg/kg	50	08/26/21 03:27	8260B		MS
Naphthalene*	0.215	0.0250	0.00500	mg/kg	50	08/26/21 03:27	8260B		MS
Surrogate: Dibromofluoromethane			98.9 %	84.6-114		08/26/21 03:27	8260B		MS
Surrogate: Toluene-d8			98.9 %	90.4-109		08/26/21 03:27	8260B		MS
Surrogate: 4-Bromofluorobenzene			144 %	82.5-117		08/26/21 03:27	8260B	S-04	MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	<0.153	0.400	0.153	mg/kg	400	09/07/21 14:18	8270C		MS
2-Methylnaphthalene*	<0.226	0.400	0.226	mg/kg	400	09/07/21 14:18	8270C		MS
1-Methylnaphthalene	1.26	0.400	0.161	mg/kg	400	09/07/21 14:18	8270C		MS
Acenaphthylene*	<0.196	0.400	0.196	mg/kg	400	09/07/21 14:18	8270C		MS
Acenaphthene*	<0.235	0.400	0.235	mg/kg	400	09/07/21 14:18	8270C		MS
Fluorene*	1.37	0.400	0.142	mg/kg	400	09/07/21 14:18	8270C		MS
Phenanthrene*	2.75	0.400	0.214	mg/kg	400	09/07/21 14:18	8270C		MS
Anthracene*	<0.172	0.400	0.172	mg/kg	400	09/07/21 14:18	8270C		MS
Carbazole*	<0.190	0.400	0.190	mg/kg	400	09/07/21 14:18	8270C		MS
Fluoranthene*	0.917	0.400	0.185	mg/kg	400	09/07/21 14:18	8270C		MS
Pyrene*	2.69	0.400	0.132	mg/kg	400	09/07/21 14:18	8270C		MS
Benzo[a]anthracene*	<0.230	0.400	0.230	mg/kg	400	09/07/21 14:18	8270C		MS
Chrysene*	4.05	0.400	0.172	mg/kg	400	09/07/21 14:18	8270C		MS
Benzo[b]fluoranthene*	0.988	0.400	0.192	mg/kg	400	09/07/21 14:18	8270C		MS
Benzo[k]fluoranthene*	<0.157	0.400	0.157	mg/kg	400	09/07/21 14:18	8270C		MS
Benzo[a]pyrene*	<0.182	0.400	0.182	mg/kg	400	09/07/21 14:18	8270C		MS
Indeno[1,2,3-cd]pyrene*	<0.168	0.400	0.168	mg/kg	400	09/07/21 14:18	8270C		MS

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS11

2108209-11 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Polynuclear Aromatic Compounds by GC/MS

Dibenz[a,h]anthracene*	<0.186	0.400	0.186	mg/kg	400	09/07/21 14:18	8270C		MS
Benzo[g,h,i]perylene*	<0.186	0.400	0.186	mg/kg	400	09/07/21 14:18	8270C		MS
Surrogate: Nitrobenzene-d5			69.8 %	39.6-121		09/07/21 14:18	8270C		MS
Surrogate: 2-Fluorobiphenyl			72.8 %	39.8-134		09/07/21 14:18	8270C		MS
Surrogate: Terphenyl-d14			83.3 %	33.3-136		09/07/21 14:18	8270C		MS

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS12

2108209-12 (Soil)

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

Calcium	127	0.100	0.058	mg/L	1	08/31/21 13:16	EPA200.7		AES
Conductivity	860			umho/cm @ 25.0°C	1	08/30/21 14:31	ASA#9 10-3.3		JDA
Magnesium	16.6	0.100	0.065	mg/L	1	08/31/21 13:16	EPA200.7		AES
pH	7.46			pH Units	1	08/30/21 14:33	ASA#9 10-3.2		JDA
SAR	0.21			No Unit	1	08/31/21 13:16	Calculation		AES
Sodium	9.57	1.00	0.079	mg/L	1	08/31/21 13:16	EPA200.7		AES

Total Metals by ICP

Barium	954	5.00	0.390	mg/kg dry	100	09/01/21 18:36	6010B		AES
Cadmium	<5.00	5.00	1.10	mg/kg dry	100	09/01/21 18:36	6010B		AES
Chromium	32.4	5.00	0.400	mg/kg dry	100	09/01/21 18:36	6010B		AES
Copper	13.9	5.00	2.39	mg/kg dry	100	09/01/21 18:36	6010B		AES
Lead	<10.0	10.0	0.906	mg/kg dry	100	09/02/21 15:21	6010B		AES
Nickel	18.1	5.00	0.874	mg/kg dry	100	09/01/21 18:36	6010B		AES
Selenium	<20.0	20.0	4.70	mg/kg dry	100	09/01/21 18:36	6010B		AES
Silver	<1.00	1.00	0.688	mg/kg dry	100	09/01/21 18:36	6010B		AES
Zinc	54.8	10.0	1.71	mg/kg dry	100	09/02/21 15:21	6010B		AES

Total Metals by ICPMS

Arsenic	8.15	1.00	0.0950	mg/kg dry	1000	09/02/21 13:42	6020A		AES
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Hot Water Extractable

Boron	<1.20	1.20	0.568	mg/L	4	08/30/21 13:07	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0	10.0	6.25	mg/kg	1	08/29/21 13:42	8015B		CK
DRO >C10-C28*	<10.0	10.0	4.26	mg/kg	1	08/29/21 13:42	8015B		CK
EXT DRO >C28-C36	<10.0	10.0	4.26	mg/kg	1	08/29/21 13:42	8015B		CK

Surrogate: 1-Chlorooctane			73.4 %	44.3-133		08/29/21 13:42	8015B		CK
Surrogate: 1-Chlorooctadecane			68.3 %	38.9-142		08/29/21 13:42	8015B		CK

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS12

2108209-12 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Benzene*	<0.0250	0.0250	0.00885	mg/kg	50	08/26/21 03:46	8260B		MS
Toluene*	<0.0250	0.0250	0.00670	mg/kg	50	08/26/21 03:46	8260B		MS
Ethylbenzene*	<0.0250	0.0250	0.00405	mg/kg	50	08/26/21 03:46	8260B		MS
m+p - Xylene*	<0.0500	0.0500	0.0186	mg/kg	50	08/26/21 03:46	8260B		MS
o-Xylene*	<0.0250	0.0250	0.00700	mg/kg	50	08/26/21 03:46	8260B		MS
Total Xylenes*	<0.0750	0.0750	0.0250	mg/kg	50	08/26/21 03:46	8260B		MS
1,3,5-Trimethylbenzene	<0.0250	0.0250	0.00450	mg/kg	50	08/26/21 03:46	8260B		MS
1,2,4-Trimethylbenzene	<0.0250	0.0250	0.00650	mg/kg	50	08/26/21 03:46	8260B		MS
Naphthalene*	<0.0250	0.0250	0.00500	mg/kg	50	08/26/21 03:46	8260B		MS
Surrogate: Dibromofluoromethane			99.1 %	84.6-114		08/26/21 03:46	8260B		MS
Surrogate: Toluene-d8			102 %	90.4-109		08/26/21 03:46	8260B		MS
Surrogate: 4-Bromofluorobenzene			99.4 %	82.5-117		08/26/21 03:46	8260B		MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	<0.015	0.040	0.015	mg/kg	40	09/07/21 14:47	8270C		MS
2-Methylnaphthalene*	<0.023	0.040	0.023	mg/kg	40	09/07/21 14:47	8270C		MS
1-Methylnaphthalene	<0.016	0.040	0.016	mg/kg	40	09/07/21 14:47	8270C		MS
Acenaphthylene*	<0.020	0.040	0.020	mg/kg	40	09/07/21 14:47	8270C		MS
Acenaphthene*	<0.024	0.040	0.024	mg/kg	40	09/07/21 14:47	8270C		MS
Fluorene*	<0.014	0.040	0.014	mg/kg	40	09/07/21 14:47	8270C		MS
Phenanthrene*	<0.021	0.040	0.021	mg/kg	40	09/07/21 14:47	8270C		MS
Anthracene*	<0.017	0.040	0.017	mg/kg	40	09/07/21 14:47	8270C		MS
Carbazole*	<0.019	0.040	0.019	mg/kg	40	09/07/21 14:47	8270C		MS
Fluoranthene*	<0.019	0.040	0.019	mg/kg	40	09/07/21 14:47	8270C		MS
Pyrene*	<0.013	0.040	0.013	mg/kg	40	09/07/21 14:47	8270C		MS
Benzo[a]anthracene*	<0.023	0.040	0.023	mg/kg	40	09/07/21 14:47	8270C		MS
Chrysene*	0.048	0.040	0.017	mg/kg	40	09/07/21 14:47	8270C		MS
Benzo[b]fluoranthene*	<0.019	0.040	0.019	mg/kg	40	09/07/21 14:47	8270C		MS
Benzo[k]fluoranthene*	<0.016	0.040	0.016	mg/kg	40	09/07/21 14:47	8270C		MS
Benzo[a]pyrene*	<0.018	0.040	0.018	mg/kg	40	09/07/21 14:47	8270C		MS
Indeno[1,2,3-cd]pyrene*	<0.017	0.040	0.017	mg/kg	40	09/07/21 14:47	8270C		MS

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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SS12

2108209-12 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Polynuclear Aromatic Compounds by GC/MS

Dibenz[a,h]anthracene*	<0.019	0.040	0.019	mg/kg	40	09/07/21 14:47	8270C		MS
Benzo[g,h,i]perylene*	<0.019	0.040	0.019	mg/kg	40	09/07/21 14:47	8270C		MS
Surrogate: Nitrobenzene-d5			66.1 %	39.6-121		09/07/21 14:47	8270C		MS
Surrogate: 2-Fluorobiphenyl			71.0 %	39.8-134		09/07/21 14:47	8270C		MS
Surrogate: Terphenyl-d14			74.5 %	33.3-136		09/07/21 14:47	8270C		MS

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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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 B212014 - Paste Extract

Blank (B212014-BLK1)

Prepared: 08/30/21 Analyzed: 08/31/21

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

Duplicate (B212014-DUP1)

Source: 2108209-01 Prepared: 08/30/21 Analyzed: 08/31/21

Calcium	112	0.100	mg/L		112		0.738	20		
Magnesium	11.7	0.100	mg/L		11.9		2.16	20		
SAR	1.99		No Unit		1.99		0.00	20		
Sodium	82.9	1.00	mg/L		82.7		0.252	20		

Reference (B212014-SRM1)

Prepared: 08/30/21 Analyzed: 09/01/21

SAR	7.10		No Unit	7.50		94.7	90-110			
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Batch B212015 - Paste Extract

Duplicate (B212015-DUP1)

Source: 2108209-01 Prepared & Analyzed: 08/30/21

Conductivity	1060		umho/cm @ 25.0°C		1060		0.00	20		
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Reference (B212015-SRM1)

Prepared & Analyzed: 08/30/21

Conductivity	7380		umho/cm @ 25.0°C	6720		110	90-110			
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Batch B212016 - Paste Extract

Duplicate (B212016-DUP1)

Source: 2108209-01 Prepared & Analyzed: 08/30/21

pH	7.57		pH Units		7.63		0.789	20		
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Reference (B212016-SRM1)

Prepared & Analyzed: 08/30/21

pH	8.61		pH Units	9.14		94.2	95-105			BS2
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Cottonwood Consulting	Project: COGCC Table 915-1	
PO Box 1653	Project Name / Number: M. Spaulding Centralized Tank Battery	Reported:
Durango CO, 81302	Project Manager: Jake Harter	09/08/21 12:31

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 B211995 - EPA 3050

Blank (B211995-BLK1)

Prepared: 08/27/21 Analyzed: 09/01/21

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 (B211995-BS1)

Prepared: 08/27/21 Analyzed: 09/01/21

Barium	185	5.00	mg/kg dry	200		92.3	80-120			
Cadmium	171	5.00	mg/kg dry	200		85.3	80-120			
Chromium	185	5.00	mg/kg dry	200		92.6	80-120			
Copper	391	5.00	mg/kg dry	400		97.7	80-120			
Lead	176	10.0	mg/kg dry	200		87.8	80-120			
Nickel	177	5.00	mg/kg dry	200		88.5	80-120			
Selenium	773	20.0	mg/kg dry	800		96.6	80-120			
Silver	9.24	1.00	mg/kg dry	10.0		92.4	80-120			
Zinc	163	10.0	mg/kg dry	200		81.6	80-120			

LCS Dup (B211995-BSD1)

Prepared: 08/27/21 Analyzed: 09/01/21

Barium	180	5.00	mg/kg dry	200		89.9	80-120	2.64	20	
Cadmium	166	5.00	mg/kg dry	200		83.2	80-120	2.50	20	
Chromium	180	5.00	mg/kg dry	200		90.0	80-120	2.81	20	
Copper	383	5.00	mg/kg dry	400		95.8	80-120	1.92	20	
Lead	173	10.0	mg/kg dry	200		86.5	80-120	1.50	20	
Nickel	174	5.00	mg/kg dry	200		87.1	80-120	1.58	20	
Selenium	766	20.0	mg/kg dry	800		95.7	80-120	0.891	20	
Silver	9.06	1.00	mg/kg dry	10.0		90.6	80-120	1.96	20	
Zinc	163	10.0	mg/kg dry	200		81.5	80-120	0.184	20	

Batch B211996 - EPA 3050

Blank (B211996-BLK1)

Prepared: 08/27/21 Analyzed: 09/01/21

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							

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Cottonwood Consulting	Project: COGCC Table 915-1	
PO Box 1653	Project Name / Number: M. Spaulding Centralized Tank Battery	Reported:
Durango CO, 81302	Project Manager: Jake Harter	09/08/21 12:31

**Total Metals by ICP - Quality Control
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B211996 - EPA 3050 (Continued)

Blank (B211996-BLK1) (Continued)

Prepared: 08/27/21 Analyzed: 09/01/21

Selenium	ND	20.0	mg/kg dry							
Silver	ND	1.00	mg/kg dry							
Zinc	ND	10.0	mg/kg dry							

LCS (B211996-BS1)

Prepared: 08/27/21 Analyzed: 09/01/21

Barium	175	5.00	mg/kg dry	200		87.3	80-120			
Cadmium	162	5.00	mg/kg dry	200		81.2	80-120			
Chromium	175	5.00	mg/kg dry	200		87.4	80-120			
Copper	373	5.00	mg/kg dry	400		93.3	80-120			
Lead	164	10.0	mg/kg dry	200		82.2	80-120			
Nickel	167	5.00	mg/kg dry	200		83.7	80-120			
Selenium	761	20.0	mg/kg dry	800		95.1	80-120			
Silver	9.19	1.00	mg/kg dry	10.0		91.9	80-120			
Zinc	164	10.0	mg/kg dry	200		82.1	80-120			

LCS Dup (B211996-BSD1)

Prepared: 08/27/21 Analyzed: 09/01/21

Barium	169	5.00	mg/kg dry	200		84.7	80-120	2.98	20	
Cadmium	165	5.00	mg/kg dry	200		82.6	80-120	1.75	20	
Chromium	170	5.00	mg/kg dry	200		85.1	80-120	2.65	20	
Copper	365	5.00	mg/kg dry	400		91.3	80-120	2.21	20	
Lead	165	10.0	mg/kg dry	200		82.7	80-120	0.701	20	
Nickel	169	5.00	mg/kg dry	200		84.4	80-120	0.846	20	
Selenium	751	20.0	mg/kg dry	800		93.9	80-120	1.30	20	
Silver	8.91	1.00	mg/kg dry	10.0		89.1	80-120	3.09	20	
Zinc	161	10.0	mg/kg dry	200		80.4	80-120	2.08	20	

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: M. Spaulding Centralized Tank Battery Project Manager: Jake Harter	Reported: 09/08/21 12:31
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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 B211997 - EPA 3050M

Blank (B211997-BLK1)

Prepared: 08/27/21 Analyzed: 09/02/21

Arsenic	ND	0.100	mg/kg dry							
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LCS (B211997-BS1)

Prepared: 08/27/21 Analyzed: 09/02/21

Arsenic	5.10	0.100	mg/kg dry	5.00		102	80-120			
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LCS Dup (B211997-BSD1)

Prepared: 08/27/21 Analyzed: 09/02/21

Arsenic	5.18	0.100	mg/kg dry	5.00		104	80-120	1.55	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 B211992 - Hot Water Soluble Metals Extract

Blank (B211992-BLK1)

Prepared: 08/27/21 Analyzed: 08/30/21

Boron	ND	1.20	mg/L							
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Duplicate (B211992-DUP1)

Source: 2108209-01 Prepared: 08/27/21 Analyzed: 08/30/21

Boron	ND	1.20	mg/L		ND				200	
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Cottonwood Consulting	Project: COGCC Table 915-1	
PO Box 1653	Project Name / Number: M. Spaulding Centralized Tank Battery	Reported:
Durango CO, 81302	Project Manager: Jake Harter	09/08/21 12:31

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 1082522 - General Prep - Organics

Blank (1082522-BLK1)

Prepared: 08/25/21 Analyzed: 08/28/21

Surrogate: 1-Chlorooctadecane	38.1		mg/kg	50.0		76.3	38.9-142			
Surrogate: 1-Chlorooctane	41.8		mg/kg	50.0		83.5	44.3-133			
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 (1082522-BS1)

Prepared: 08/25/21 Analyzed: 08/28/21

Surrogate: 1-Chlorooctadecane	40.0		mg/kg	50.0		80.1	38.9-142			
Surrogate: 1-Chlorooctane	44.9		mg/kg	50.0		89.7	44.3-133			
DRO >C10-C28	200	10.0	mg/kg	200		100	79.3-136			
GRO C6-C10	184	10.0	mg/kg	200		92.0	83.4-129			
Total TPH C6-C28	384	10.0	mg/kg	400		96.0	85.3-130			

LCS Dup (1082522-BSD1)

Prepared: 08/25/21 Analyzed: 08/28/21

Surrogate: 1-Chlorooctadecane	38.9		mg/kg	50.0		77.8	38.9-142			
Surrogate: 1-Chlorooctane	41.8		mg/kg	50.0		83.6	44.3-133			
DRO >C10-C28	201	10.0	mg/kg	200		101	79.3-136	0.679	12.1	
GRO C6-C10	184	10.0	mg/kg	200		92.0	83.4-129	0.0424	12.6	
Total TPH C6-C28	385	10.0	mg/kg	400		96.3	85.3-130	0.334	11.6	

Batch 1082612 - General Prep - Organics

Blank (1082612-BLK1)

Prepared: 08/26/21 Analyzed: 08/29/21

Surrogate: 1-Chlorooctadecane	37.3		mg/kg	50.0		74.6	38.9-142			
Surrogate: 1-Chlorooctane	39.5		mg/kg	50.0		79.1	44.3-133			
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 (1082612-BS1)

Prepared: 08/26/21 Analyzed: 08/29/21

Surrogate: 1-Chlorooctadecane	38.6		mg/kg	50.0		77.3	38.9-142			
Surrogate: 1-Chlorooctane	41.9		mg/kg	50.0		83.8	44.3-133			
DRO >C10-C28	196	10.0	mg/kg	200		98.0	79.3-136			
GRO C6-C10	212	10.0	mg/kg	200		106	83.4-129			
Total TPH C6-C28	408	10.0	mg/kg	400		102	85.3-130			

LCS Dup (1082612-BSD1)

Prepared: 08/26/21 Analyzed: 08/29/21

Surrogate: 1-Chlorooctadecane	39.9		mg/kg	50.0		79.8	38.9-142			
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Cottonwood Consulting	Project: COGCC Table 915-1	
PO Box 1653	Project Name / Number: M. Spaulding Centralized Tank Battery	Reported:
Durango CO, 81302	Project Manager: Jake Harter	09/08/21 12:31

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 1082612 - General Prep - Organics (Continued)

LCS Dup (1082612-BSD1) (Continued)

Prepared: 08/26/21 Analyzed: 08/29/21

<i>Surrogate: 1-Chlorooctane</i>	43.2		mg/kg	50.0		86.4	44.3-133			
DRO >C10-C28	192	10.0	mg/kg	200		96.2	79.3-136	1.82	12.1	
GRO C6-C10	216	10.0	mg/kg	200		108	83.4-129	1.71	12.6	
Total TPH C6-C28	408	10.0	mg/kg	400		102	85.3-130	0.0277	11.6	

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Cottonwood Consulting	Project: COGCC Table 915-1	
PO Box 1653	Project Name / Number: M. Spaulding Centralized Tank Battery	Reported:
Durango CO, 81302	Project Manager: Jake Harter	09/08/21 12:31

VOLATILES 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 1082523 - Volatiles

Blank (1082523-BLK1)

Prepared & Analyzed: 08/25/21

1,2,4-Trimethylbenzene	ND	0.0250	mg/kg							
1,3,5-Trimethylbenzene	ND	0.0250	mg/kg							
<i>Surrogate: 4-Bromofluorobenzene</i>	1.08		mg/kg	1.25		86.6	82.5-117			
Benzene	ND	0.0250	mg/kg							
<i>Surrogate: Dibromofluoromethane</i>	1.36		mg/kg	1.25		109	84.6-114			
Ethylbenzene	ND	0.0250	mg/kg							
m+p - Xylene	ND	0.0500	mg/kg							
Naphthalene	ND	0.0250	mg/kg							
o-Xylene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	mg/kg							
<i>Surrogate: Toluene-d8</i>	1.29		mg/kg	1.25		103	90.4-109			
Total Xylenes	ND	0.0250	mg/kg							

LCS (1082523-BS1)

Prepared & Analyzed: 08/25/21

1,2,4-Trimethylbenzene	0.456	0.0250	mg/kg	0.500		91.2	62.4-140			
1,3,5-Trimethylbenzene	0.457	0.0250	mg/kg	0.500		91.4	64.4-138			
<i>Surrogate: 4-Bromofluorobenzene</i>	1.20		mg/kg	1.25		96.2	82.5-117			
Benzene	0.495	0.0250	mg/kg	0.500		99.1	73-130			
<i>Surrogate: Dibromofluoromethane</i>	1.32		mg/kg	1.25		106	84.6-114			
Ethylbenzene	0.485	0.0250	mg/kg	0.500		97.0	75.4-127			
m+p - Xylene	0.948	0.0500	mg/kg	1.00		94.8	71.8-133			
Naphthalene	0.300	0.0250	mg/kg	0.500		60.0	28.7-158			
o-Xylene	0.422	0.0250	mg/kg	0.500		84.5	78.6-125			
Toluene	0.484	0.0250	mg/kg	0.500		96.8	79-122			
<i>Surrogate: Toluene-d8</i>	1.25		mg/kg	1.25		100	90.4-109			
Total Xylenes	1.37	0.0250	mg/kg	1.50		91.4	74.6-130			

LCS Dup (1082523-BSD1)

Prepared & Analyzed: 08/25/21

1,2,4-Trimethylbenzene	0.475	0.0250	mg/kg	0.500		95.0	62.4-140	4.09	38.2	
1,3,5-Trimethylbenzene	0.481	0.0250	mg/kg	0.500		96.2	64.4-138	5.17	39.1	
<i>Surrogate: 4-Bromofluorobenzene</i>	1.20		mg/kg	1.25		95.7	82.5-117			
Benzene	0.501	0.0250	mg/kg	0.500		100	73-130	1.13	17.1	
<i>Surrogate: Dibromofluoromethane</i>	1.33		mg/kg	1.25		106	84.6-114			
Ethylbenzene	0.489	0.0250	mg/kg	0.500		97.8	75.4-127	0.801	16.5	
m+p - Xylene	0.982	0.0500	mg/kg	1.00		98.2	71.8-133	3.46	19.1	
Naphthalene	0.304	0.0250	mg/kg	0.500		60.8	28.7-158	1.36	64	
o-Xylene	0.440	0.0250	mg/kg	0.500		87.9	78.6-125	3.98	13.2	
Toluene	0.508	0.0250	mg/kg	0.500		102	79-122	4.97	18.3	

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Cottonwood Consulting	Project: COGCC Table 915-1	
PO Box 1653	Project Name / Number: M. Spaulding Centralized Tank Battery	Reported:
Durango CO, 81302	Project Manager: Jake Harter	09/08/21 12:31

**VOLATILES 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 1082523 - Volatiles (Continued)

LCS Dup (1082523-BSD1) (Continued)

Prepared & Analyzed: 08/25/21

Surrogate: Toluene-d8	1.28		mg/kg	1.25		103	90.4-109			
Total Xylenes	1.42	0.0250	mg/kg	1.50		94.8	74.6-130	3.62	16.5	

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Cottonwood Consulting	Project: COGCC Table 915-1	
PO Box 1653	Project Name / Number: M. Spaulding Centralized Tank Battery	Reported:
Durango CO, 81302	Project Manager: Jake Harter	09/08/21 12:31

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 1082524 - SW846-3510

Blank (1082524-BLK1)

Prepared: 08/25/21 Analyzed: 09/02/21

1-Methylnaphthalene	ND	0.040	mg/kg							
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>1.90</i>		mg/kg	<i>2.00</i>		<i>95.2</i>	<i>39.8-134</i>			
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]flouranthene	ND	0.040	mg/kg							
Benzo[g,h,i]perylene	ND	0.040	mg/kg							
Benzo[k]flouranthene	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							
<i>Surrogate: Nitrobenzene-d5</i>	<i>1.75</i>		mg/kg	<i>2.00</i>		<i>87.7</i>	<i>39.6-121</i>			
Phenanthrene	ND	0.040	mg/kg							
Pyrene	ND	0.040	mg/kg							
<i>Surrogate: Terphenyl-d14</i>	<i>1.98</i>		mg/kg	<i>2.00</i>		<i>98.8</i>	<i>33.3-136</i>			

LCS (1082524-BS1)

Prepared: 08/25/21 Analyzed: 09/02/21

1-Methylnaphthalene	0.360	0.040	mg/kg	0.400		90.0	57.6-108			
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>1.41</i>		mg/kg	<i>2.00</i>		<i>70.6</i>	<i>39.8-134</i>			
2-Methylnaphthalene	0.346	0.040	mg/kg	0.400		86.5	59-106			
Acenaphthene	0.340	0.040	mg/kg	0.400		84.9	60.9-105			
Acenaphthylene	0.345	0.040	mg/kg	0.400		86.2	57.4-107			
Anthracene	0.330	0.040	mg/kg	0.400		82.6	60.8-105			
Benzo[a]anthracene	0.335	0.040	mg/kg	0.400		83.7	56.1-121			
Benzo[a]pyrene	0.294	0.040	mg/kg	0.400		73.4	56.7-115			
Benzo[b]flouranthene	0.337	0.040	mg/kg	0.400		84.2	45.4-128			
Benzo[g,h,i]perylene	0.308	0.040	mg/kg	0.400		77.0	56.5-107			
Benzo[k]flouranthene	0.333	0.040	mg/kg	0.400		83.3	49.6-119			
Carbazole	0.345	0.040	mg/kg	0.400		86.1	59.7-107			
Chrysene	0.319	0.040	mg/kg	0.400		79.8	12.2-190			
Dibenz[a,h]anthracene	0.287	0.040	mg/kg	0.400		71.7	59.1-111			
Fluoranthene	0.328	0.040	mg/kg	0.400		82.1	60.6-111			

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Debbie Zufelt

Debbie Zufelt, Reports Manager

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Cottonwood Consulting	Project: COGCC Table 915-1	
PO Box 1653	Project Name / Number: M. Spaulding Centralized Tank Battery	Reported:
Durango CO, 81302	Project Manager: Jake Harter	09/08/21 12:31

**Polynuclear 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 1082524 - SW846-3510 (Continued)

LCS (1082524-BS1) (Continued)

Prepared: 08/25/21 Analyzed: 09/02/21

Fluorene	0.345	0.040	mg/kg	0.400		86.3	59.3-108			
Indeno[1,2,3-cd]pyrene	0.305	0.040	mg/kg	0.400		76.2	53.4-116			
Naphthalene	0.348	0.040	mg/kg	0.400		87.0	56.5-106			
<i>Surrogate: Nitrobenzene-d5</i>	<i>1.62</i>		mg/kg	<i>2.00</i>		<i>81.1</i>	<i>39.6-121</i>			
Phenanthrene	0.333	0.040	mg/kg	0.400		83.2	59.9-107			
Pyrene	0.331	0.040	mg/kg	0.400		82.8	51.5-122			
<i>Surrogate: Terphenyl-d14</i>	<i>1.50</i>		mg/kg	<i>2.00</i>		<i>75.1</i>	<i>33.3-136</i>			

LCS Dup (1082524-BS1)

Prepared: 08/25/21 Analyzed: 09/02/21

1-Methylnaphthalene	0.342	0.040	mg/kg	0.400		85.5	57.6-108	5.15	6.22	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>1.43</i>		mg/kg	<i>2.00</i>		<i>71.6</i>	<i>39.8-134</i>			
2-Methylnaphthalene	0.357	0.040	mg/kg	0.400		89.2	59-106	3.11	6.23	
Acenaphthene	0.357	0.040	mg/kg	0.400		89.3	60.9-105	4.99	8.18	
Acenaphthylene	0.342	0.040	mg/kg	0.400		85.6	57.4-107	0.658	5	
Anthracene	0.341	0.040	mg/kg	0.400		85.3	60.8-105	3.25	3.68	
Benzo[a]anthracene	0.332	0.040	mg/kg	0.400		83.0	56.1-121	0.759	9.01	
Benzo[a]pyrene	0.297	0.040	mg/kg	0.400		74.2	56.7-115	1.06	4.92	
Benzo[b]fluoranthene	0.351	0.040	mg/kg	0.400		87.8	45.4-128	4.21	7.63	
Benzo[g,h,i]perylene	0.288	0.040	mg/kg	0.400		72.0	56.5-107	6.75	12.5	
Benzo[k]fluoranthene	0.347	0.040	mg/kg	0.400		86.8	49.6-119	4.05	10.6	
Carbazole	0.323	0.040	mg/kg	0.400		80.7	59.7-107	6.52	8.65	
Chrysene	0.320	0.040	mg/kg	0.400		80.0	12.2-190	0.253	21.8	
Dibenz[a,h]anthracene	0.281	0.040	mg/kg	0.400		70.2	59.1-111	2.17	11.6	
Fluoranthene	0.324	0.040	mg/kg	0.400		81.0	60.6-111	1.42	7.54	
Fluorene	0.332	0.040	mg/kg	0.400		83.0	59.3-108	3.94	5.49	
Indeno[1,2,3-cd]pyrene	0.303	0.040	mg/kg	0.400		75.8	53.4-116	0.477	22.3	
Naphthalene	0.355	0.040	mg/kg	0.400		88.6	56.5-106	1.89	4.56	
<i>Surrogate: Nitrobenzene-d5</i>	<i>1.62</i>		mg/kg	<i>2.00</i>		<i>81.2</i>	<i>39.6-121</i>			
Phenanthrene	0.337	0.040	mg/kg	0.400		84.2	59.9-107	1.11	5.21	
Pyrene	0.334	0.040	mg/kg	0.400		83.4	51.5-122	0.815	10.6	
<i>Surrogate: Terphenyl-d14</i>	<i>1.54</i>		mg/kg	<i>2.00</i>		<i>77.2</i>	<i>33.3-136</i>			

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: M. Spaulding Centralized Tank Battery
Project Manager: Jake Harter

Reported:
09/08/21 12:31

Notes and Definitions

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
- BS2 Laboratory control sample below laboratory acceptance criteria. Results for analyte potentially biased low.
- 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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