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27 December 2022

Kyle Siesser
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 12/07/22 10:30. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, reading 'Jeremy D. Allen', is written in a cursive style.

Jeremy D Allen
Laboratory Director

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: T104704514-22-15

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: T104704398-22-15



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Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder K Tank Battery
Project Manager: Kyle Siesser

Reported:
12/27/22 11:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
SS08	2212101-01	Solid	12/05/22 10:30	12/07/22 10:30	

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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Project: COGCC Table 915-1
Project Name / Number: Box Elder K Tank Battery
Project Manager: Kyle Siesser

Reported:
12/27/22 11:23

SS08

2212101-01 (Soil)

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

Hexavalent Chromium	<0.250	0.250	0.128	mg/kg dry	25	12/15/22 11:11	3060A/3500-Cr B		HTB
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Saturated Paste Extraction

Calcium	48.1	0.200	0.116	mg/L	2	12/20/22 17:31	EPA200.7		AES
Conductivity	1210			umho/cm@25 C	1	12/19/22 16:00	ASA#9 10-3.3		AWG
Magnesium	12.2	0.200	0.131	mg/L	2	12/20/22 17:31	EPA200.7		AES
pH	9.07			pH Units	1	12/19/22 16:00	ASA#9 10-3.2		AWG
SAR	6.67			No Unit	1	12/20/22 17:31	Calculation		AES
Sodium	200	2.00	0.159	mg/L	2	12/20/22 17:31	EPA200.7		AES

Total Metals by ICP

Barium	117	5.00	1.10	mg/kg dry	100	12/20/22 16:27	6010B		AES
Cadmium	<5.00	5.00	2.54	mg/kg dry	100	12/20/22 16:27	6010B		AES
Chromium	25.4	5.00	1.58	mg/kg dry	100	12/20/22 16:27	6010B		AES
Copper	8.88	5.00	2.83	mg/kg dry	100	12/20/22 16:27	6010B		AES
Lead	<10.0	10.0	4.02	mg/kg dry	100	12/20/22 16:27	6010B		AES
Nickel	12.7	5.00	2.41	mg/kg dry	100	12/20/22 16:27	6010B		AES
Selenium	<20.0	20.0	5.39	mg/kg dry	100	12/20/22 16:27	6010B		AES
Silver	<1.00	1.00	0.518	mg/kg dry	100	12/20/22 16:27	6010B		AES
Zinc	31.8	10.0	2.18	mg/kg dry	100	12/20/22 16:27	6010B		AES

Total Metals by ICPMS

Arsenic	3.74	1.00	0.158	mg/kg dry	1000	12/20/22 16:05	6020A		AES
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Hot Water Extractable

Boron	1.41	1.20	0.568	mg/L	4	12/20/22 18:37	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	26.3	10.0	6.25	mg/kg	1	12/12/22 16:32	8015B		MS
DRO >C10-C28*	594	10.0	4.26	mg/kg	1	12/12/22 16:32	8015B		MS
EXT DRO >C28-C36	164	10.0	4.26	mg/kg	1	12/12/22 16:32	8015B		MS

Surrogate: 1-Chlorooctane	114 %	45.3-161	12/12/22 16:32	8015B	MS
Surrogate: 1-Chlorooctadecane	134 %	46.3-178	12/12/22 16:32	8015B	MS

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Project: COGCC Table 915-1
Project Name / Number: Box Elder K Tank Battery
Project Manager: Kyle Siesser

Reported:
12/27/22 11:23

SS08

2212101-01 (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	12/14/22 14:27	8260B		MS
Toluene*	<0.0250	0.0250	0.00670	mg/kg	50	12/14/22 14:27	8260B		MS
Ethylbenzene*	<0.0250	0.0250	0.00405	mg/kg	50	12/14/22 14:27	8260B		MS
m+p - Xylene*	<0.0500	0.0500	0.0186	mg/kg	50	12/14/22 14:27	8260B		MS
o-Xylene*	<0.0250	0.0250	0.00700	mg/kg	50	12/14/22 14:27	8260B		MS
Total Xylenes*	<0.0750	0.0750	0.0256	mg/kg	50	12/14/22 14:27	8260B		MS
1,3,5-Trimethylbenzene	<0.0250	0.0250	0.00450	mg/kg	50	12/14/22 14:27	8260B		MS
1,2,4-Trimethylbenzene	0.729	0.0250	0.00650	mg/kg	50	12/14/22 14:27	8260B		MS
Naphthalene*	0.0315	0.0250	0.00500	mg/kg	50	12/14/22 14:27	8260B		MS

Surrogate: Dibromofluoromethane 94.8 % 84.6-114 12/14/22 14:27 8260B MS

Surrogate: Toluene-d8 98.0 % 90.4-109 12/14/22 14:27 8260B MS

Surrogate: 4-Bromofluorobenzene 107 % 82.5-117 12/14/22 14:27 8260B MS

Polynuclear Aromatic Compounds by GC/MS

I-03

Naphthalene*	<0.153	0.400	0.153	mg/kg	400	12/21/22 20:53	8270C		CK
2-Methylnaphthalene*	<0.226	0.400	0.226	mg/kg	400	12/21/22 20:53	8270C		CK
1-Methylnaphthalene	<0.161	0.400	0.161	mg/kg	400	12/21/22 20:53	8270C		CK
Acenaphthene*	<0.235	0.400	0.235	mg/kg	400	12/21/22 20:53	8270C		CK
Fluorene*	<0.142	0.400	0.142	mg/kg	400	12/21/22 20:53	8270C		CK
Anthracene*	<0.172	0.400	0.172	mg/kg	400	12/21/22 20:53	8270C		CK
Fluoranthene*	<0.185	0.400	0.185	mg/kg	400	12/21/22 20:53	8270C		CK
Pyrene*	<0.132	0.400	0.132	mg/kg	400	12/21/22 20:53	8270C		CK
Benzo[a]anthracene*	<0.230	0.400	0.230	mg/kg	400	12/21/22 20:53	8270C		CK
Chrysene	0.184	0.400	0.172	mg/kg	400	12/21/22 20:53	8270C	J	CK
Benzo[b]fluoranthene*	<0.192	0.400	0.192	mg/kg	400	12/21/22 20:53	8270C		CK
Benzo[k]fluoranthene*	<0.157	0.400	0.157	mg/kg	400	12/21/22 20:53	8270C		CK
Benzo[a]pyrene*	<0.182	0.400	0.182	mg/kg	400	12/21/22 20:53	8270C		CK
Indeno[1,2,3-cd]pyrene*	<0.168	0.400	0.168	mg/kg	400	12/21/22 20:53	8270C		CK
Dibenz[a,h]anthracene*	<0.186	0.400	0.186	mg/kg	400	12/21/22 20:53	8270C		CK

Surrogate: Nitrobenzene-d5 64.8 % 39.6-121 12/21/22 20:53 8270C CK

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Project: COGCC Table 915-1
Project Name / Number: Box Elder K Tank Battery
Project Manager: Kyle Siesser

Reported:
12/27/22 11:23

SS08

2212101-01 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
---------	--------	----	-----	-------	----------	----------	--------	-------	---------

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Polynuclear Aromatic Compounds by GC/MS

I-03

Surrogate: 2-Fluorobiphenyl	91.6 %	39.8-134				12/21/22 20:53	8270C		CK
Surrogate: Terphenyl-dl4	155 %	33.3-136				12/21/22 20:53	8270C	S-06	CK

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Project Name / Number: Box Elder K Tank Battery
Project Manager: Kyle Siesser

Reported:
12/27/22 11:23

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B223532 - General Prep - Wet Chem

Blank (B223532-BLK1)

Prepared & Analyzed: 12/15/22

Hexavalent Chromium	ND	0.250	mg/kg dry							
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LCS (B223532-BS1)

Prepared & Analyzed: 12/15/22

Hexavalent Chromium	2.43	0.250	mg/kg dry	2.50		97.4	85-115			
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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 B223566 - Paste Extract

Blank (B223566-BLK1)

Prepared: 12/19/22 Analyzed: 12/20/22

Calcium	ND	0.100	mg/L							
Magnesium	ND	0.100	mg/L							
SAR	0.00		No Unit							
Sodium	ND	1.00	mg/L							

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Project: COGCC Table 915-1
Project Name / Number: Box Elder K Tank Battery
Project Manager: Kyle Siesser

Reported:
12/27/22 11:23

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 B223553 - EPA 3050

Blank (B223553-BLK1)

Prepared: 12/16/22 Analyzed: 12/20/22

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 (B223553-BS1)

Prepared: 12/16/22 Analyzed: 12/20/22

Barium	201	5.00	mg/kg dry	200	100	80-120
Cadmium	187	5.00	mg/kg dry	200	93.6	80-120
Chromium	200	5.00	mg/kg dry	200	100	80-120
Copper	413	5.00	mg/kg dry	400	103	80-120
Lead	194	10.0	mg/kg dry	200	96.9	80-120
Nickel	194	5.00	mg/kg dry	200	97.1	80-120
Selenium	808	20.0	mg/kg dry	800	101	80-120
Silver	9.52	1.00	mg/kg dry	10.0	95.2	80-120
Zinc	181	10.0	mg/kg dry	200	90.6	80-120

LCS Dup (B223553-BSD1)

Prepared: 12/16/22 Analyzed: 12/20/22

Barium	200	5.00	mg/kg dry	200	100	80-120	0.214	20
Cadmium	185	5.00	mg/kg dry	200	92.3	80-120	1.33	20
Chromium	199	5.00	mg/kg dry	200	99.4	80-120	0.598	20
Copper	417	5.00	mg/kg dry	400	104	80-120	0.900	20
Lead	187	10.0	mg/kg dry	200	93.3	80-120	3.87	20
Nickel	189	5.00	mg/kg dry	200	94.4	80-120	2.83	20
Selenium	799	20.0	mg/kg dry	800	99.8	80-120	1.14	20
Silver	9.68	1.00	mg/kg dry	10.0	96.8	80-120	1.59	20
Zinc	174	10.0	mg/kg dry	200	87.1	80-120	3.84	20

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Project Manager: Kyle Siesser

Reported:
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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 B223554 - EPA 3050M

Blank (B223554-BLK1)

Prepared: 12/16/22 Analyzed: 12/20/22

Arsenic	ND	1.00	mg/kg dry							
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LCS (B223554-BS1)

Prepared: 12/16/22 Analyzed: 12/20/22

Arsenic	5.21	1.00	mg/kg dry	5.00		104	80-120			
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LCS Dup (B223554-BSD1)

Prepared: 12/16/22 Analyzed: 12/20/22

Arsenic	4.89	1.00	mg/kg dry	5.00		97.9	80-120	6.19	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 B223549 - Hot Water Soluble Metals Extract

Blank (B223549-BLK1)

Prepared: 12/16/22 Analyzed: 12/20/22

Boron	ND	1.20	mg/L							
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Project: COGCC Table 915-1
Project Name / Number: Box Elder K Tank Battery
Project Manager: Kyle Siesser

Reported:
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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 2121212 - General Prep - Organics

Blank (2121212-BLK1)

Prepared & Analyzed: 12/12/22

Surrogate: 1-Chlorooctadecane	47.8		mg/kg	50.0		95.6	46.3-178			
Surrogate: 1-Chlorooctane	50.3		mg/kg	50.0		101	45.3-161			
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 (2121212-BS1)

Prepared & Analyzed: 12/12/22

Surrogate: 1-Chlorooctadecane	49.3		mg/kg	50.0		98.7	46.3-178			
Surrogate: 1-Chlorooctane	55.3		mg/kg	50.0		111	45.3-161			
DRO >C10-C28	191	10.0	mg/kg	200		95.6	74.9-127			
GRO C6-C10	207	10.0	mg/kg	200		104	76.8-124			
Total TPH C6-C28	399	10.0	mg/kg	400		99.7	77.5-124			

LCS Dup (2121212-BSD1)

Prepared & Analyzed: 12/12/22

Surrogate: 1-Chlorooctadecane	50.6		mg/kg	50.0		101	46.3-178			
Surrogate: 1-Chlorooctane	55.5		mg/kg	50.0		111	45.3-161			
DRO >C10-C28	196	10.0	mg/kg	200		97.9	74.9-127	2.29	18.6	
GRO C6-C10	212	10.0	mg/kg	200		106	76.8-124	2.43	17.2	
Total TPH C6-C28	408	10.0	mg/kg	400		102	77.5-124	2.36	17.6	

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Reported:
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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 2121412 - Volatiles**Blank (2121412-BLK1)**

Prepared & Analyzed: 12/14/22

1,2,4-Trimethylbenzene	ND	0.0250	mg/kg						
1,3,5-Trimethylbenzene	ND	0.0250	mg/kg						
Surrogate: 4-Bromofluorobenzene	1.24		mg/kg	1.25		99.5	82.5-117		
Benzene	ND	0.0250	mg/kg						
Surrogate: Dibromofluoromethane	1.15		mg/kg	1.25		92.1	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						
Surrogate: Toluene-d8	1.23		mg/kg	1.25		98.2	90.4-109		
Total Xylenes	ND	0.0750	mg/kg						

LCS (2121412-BS1)

Prepared & Analyzed: 12/14/22

1,2,4-Trimethylbenzene	0.566	0.0250	mg/kg	0.500		113	62.4-140		
1,3,5-Trimethylbenzene	0.554	0.0250	mg/kg	0.500		111	64.4-138		
Surrogate: 4-Bromofluorobenzene	1.24		mg/kg	1.25		99.5	82.5-117		
Benzene	0.562	0.0250	mg/kg	0.500		112	73-130		
Surrogate: Dibromofluoromethane	1.15		mg/kg	1.25		92.2	84.6-114		
Ethylbenzene	0.550	0.0250	mg/kg	0.500		110	75.4-127		
m+p - Xylene	1.11	0.0500	mg/kg	1.00		111	71.8-133		
Naphthalene	0.485	0.0250	mg/kg	0.500		97.0	28.7-158		
o-Xylene	0.534	0.0250	mg/kg	0.500		107	78.6-125		
Toluene	0.559	0.0250	mg/kg	0.500		112	79-122		
Surrogate: Toluene-d8	1.26		mg/kg	1.25		101	90.4-109		
Total Xylenes	1.65	0.0750	mg/kg	1.50		110	74.6-130		

LCS Dup (2121412-BSD1)

Prepared & Analyzed: 12/14/22

1,2,4-Trimethylbenzene	0.549	0.0250	mg/kg	0.500		110	62.4-140	3.00	38.2
1,3,5-Trimethylbenzene	0.550	0.0250	mg/kg	0.500		110	64.4-138	0.795	39.1
Surrogate: 4-Bromofluorobenzene	1.26		mg/kg	1.25		101	82.5-117		
Benzene	0.553	0.0250	mg/kg	0.500		111	73-130	1.54	17.1
Surrogate: Dibromofluoromethane	1.20		mg/kg	1.25		95.7	84.6-114		
Ethylbenzene	0.536	0.0250	mg/kg	0.500		107	75.4-127	2.56	16.5
m+p - Xylene	1.10	0.0500	mg/kg	1.00		110	71.8-133	1.41	19.1
Naphthalene	0.442	0.0250	mg/kg	0.500		88.3	28.7-158	9.37	64
o-Xylene	0.547	0.0250	mg/kg	0.500		109	78.6-125	2.34	13.2
Toluene	0.554	0.0250	mg/kg	0.500		111	79-122	0.825	18.3

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Jeremy D Allen, Laboratory Director

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder K Tank Battery
Project Manager: Kyle Siesser

Reported:
12/27/22 11:23

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 2121412 - Volatiles (Continued)

LCS Dup (2121412-BSD1) (Continued)

Prepared & Analyzed: 12/14/22

Surrogate: Toluene-d8	1.26		mg/kg	1.25		101	90.4-109			
Total Xylenes	1.65	0.0750	mg/kg	1.50		110	74.6-130	0.176	16.5	

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder K Tank Battery
Project Manager: Kyle Siesser

Reported:
12/27/22 11:23

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 2121312 - SW846-3510

Blank (2121312-BLK1)

Prepared & Analyzed: 12/21/22

1-Methylnaphthalene	ND	0.040	mg/kg							
Surrogate: 2-Fluorobiphenyl	1.69		mg/kg	2.00		84.7	39.8-134			
2-Methylnaphthalene	ND	0.040	mg/kg							
Acenaphthene	ND	0.040	mg/kg							
Anthracene	ND	0.040	mg/kg							
Benzo[a]anthracene	ND	0.040	mg/kg							
Benzo[a]pyrene	ND	0.040	mg/kg							
Benzo[b]fluoranthene	ND	0.040	mg/kg							
Benzo[k]fluoranthene	ND	0.040	mg/kg							
Chrysene	ND	0.040	mg/kg							
Dibenz[a,h]anthracene	ND	0.040	mg/kg							
Fluoranthene	ND	0.040	mg/kg							
Fluorene	ND	0.040	mg/kg							
Indeno[1,2,3-cd]pyrene	ND	0.040	mg/kg							
Naphthalene	ND	0.040	mg/kg							
Surrogate: Nitrobenzene-d5	1.77		mg/kg	2.00		88.4	39.6-121			
Pyrene	ND	0.040	mg/kg							
Surrogate: Terphenyl-d14	3.12		mg/kg	2.00		156	33.3-136			S-04

LCS (2121312-BS1)

Prepared & Analyzed: 12/21/22

1-Methylnaphthalene	0.296	0.040	mg/kg	0.400		74.1	57.6-108			
Surrogate: 2-Fluorobiphenyl	1.67		mg/kg	2.00		83.5	39.8-134			
2-Methylnaphthalene	0.292	0.040	mg/kg	0.400		73.0	59-106			
Acenaphthene	0.298	0.040	mg/kg	0.400		74.6	60.9-105			
Acenaphthylene	0.307	0.040	mg/kg	0.400		76.9	57.4-107			
Anthracene	0.318	0.040	mg/kg	0.400		79.5	60.8-105			
Benzo[a]anthracene	0.306	0.040	mg/kg	0.400		76.6	56.1-121			
Benzo[a]pyrene	0.302	0.040	mg/kg	0.400		75.5	56.7-115			
Benzo[b]fluoranthene	0.310	0.040	mg/kg	0.400		77.5	45.4-128			
Benzo[g,h,i]perylene	0.314	0.040	mg/kg	0.400		78.6	56.5-107			
Benzo[k]fluoranthene	0.307	0.040	mg/kg	0.400		76.8	49.6-119			
Carbazole	0.318	0.040	mg/kg	0.400		79.5	59.7-107			
Chrysene	0.312	0.040	mg/kg	0.400		78.1	12.2-190			
Dibenz[a,h]anthracene	0.318	0.040	mg/kg	0.400		79.4	59.1-111			
Fluoranthene	0.311	0.040	mg/kg	0.400		77.7	60.6-111			
Fluorene	0.307	0.040	mg/kg	0.400		76.8	59.3-108			
Indeno[1,2,3-cd]pyrene	0.331	0.040	mg/kg	0.400		82.8	53.4-116			
Naphthalene	0.300	0.040	mg/kg	0.400		74.9	56.5-106			

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Jeremy D Allen, Laboratory Director

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder K Tank Battery
Project Manager: Kyle Siesser

Reported:
12/27/22 11:23

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 2121312 - SW846-3510 (Continued)

LCS (2121312-BS1) (Continued)

Prepared & Analyzed: 12/21/22

Surrogate: Nitrobenzene-d5	1.28		mg/kg	2.00		64.2	39.6-121			
Phenanthrene	0.319	0.040	mg/kg	0.400		79.8	59.9-107			
Pyrene	0.296	0.040	mg/kg	0.400		74.0	51.5-122			
Surrogate: Terphenyl-d14	3.11		mg/kg	2.00		155	33.3-136			S-04

LCS Dup (2121312-BS1)

Prepared & Analyzed: 12/21/22

1-Methylnaphthalene	0.324	0.040	mg/kg	0.400		80.9	57.6-108	8.75	6.22	QR-04
Surrogate: 2-Fluorobiphenyl	1.57		mg/kg	2.00		78.7	39.8-134			
2-Methylnaphthalene	0.318	0.040	mg/kg	0.400		79.5	59-106	8.56	6.23	QR-04
Acenaphthene	0.295	0.040	mg/kg	0.400		73.8	60.9-105	1.10	8.18	
Acenaphthylene	0.308	0.040	mg/kg	0.400		77.1	57.4-107	0.286	5	
Anthracene	0.338	0.040	mg/kg	0.400		84.6	60.8-105	6.22	3.68	QR-04
Benzo[a]anthracene	0.308	0.040	mg/kg	0.400		76.9	56.1-121	0.495	9.01	
Benzo[a]pyrene	0.298	0.040	mg/kg	0.400		74.5	56.7-115	1.35	4.92	
Benzo[b]fluoranthene	0.317	0.040	mg/kg	0.400		79.2	45.4-128	2.27	7.63	
Benzo[g,h,i]perylene	0.306	0.040	mg/kg	0.400		76.6	56.5-107	2.56	12.5	
Benzo[k]fluoranthene	0.317	0.040	mg/kg	0.400		79.3	49.6-119	3.26	10.6	
Carbazole	0.335	0.040	mg/kg	0.400		83.7	59.7-107	5.20	8.65	
Chrysene	0.316	0.040	mg/kg	0.400		79.1	12.2-190	1.23	21.8	
Dibenz[a,h]anthracene	0.310	0.040	mg/kg	0.400		77.6	59.1-111	2.35	11.6	
Fluoranthene	0.329	0.040	mg/kg	0.400		82.1	60.6-111	5.50	7.54	
Fluorene	0.305	0.040	mg/kg	0.400		76.2	59.3-108	0.771	5.49	
Indeno[1,2,3-cd]pyrene	0.319	0.040	mg/kg	0.400		79.8	53.4-116	3.61	22.3	
Naphthalene	0.335	0.040	mg/kg	0.400		83.7	56.5-106	11.1	4.56	QR-04
Surrogate: Nitrobenzene-d5	1.44		mg/kg	2.00		71.8	39.6-121			
Phenanthrene	0.348	0.040	mg/kg	0.400		87.0	59.9-107	8.67	5.21	QR-04
Pyrene	0.311	0.040	mg/kg	0.400		77.7	51.5-122	5.00	10.6	
Surrogate: Terphenyl-d14	2.41		mg/kg	2.00		120	33.3-136			

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Project: COGCC Table 915-1
Project Name / Number: Box Elder K Tank Battery
Project Manager: Kyle Siesser

Reported:
12/27/22 11:23

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.

QR-04 The RPD for the BS/BSD was outside of historical limits.

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

I-03 This result was extracted outside of the EPA recommended holding time of 14 days.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis
*Results reported on as received basis unless designated as dry.

RPD Relative Percent Difference

LCS Laboratory Control Sample (Blank Spike)

RL Report Limit

MDL Method Detection Limit

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