

Form 27 Data Package

Federal 32-10
Remediation #: 41913



Prepared for:
CRESTONE PEAK RESOURCES OPERATING LLC

January 6, 2025

SWNE & NWNE 10 T3N R65W

Facility ID: 473092
API #: 123-17137

Corrective Action Plan

1.0 INTRODUCTION

This Corrective Action Plan (CAP) has been prepared by Stantec Consulting Services Inc. (Stantec) to document the decommissioning of Federal 32-10 flowline (Site). The activities described in this CAP were completed in accordance with the Colorado Energy & Carbon Management Commission (ECMC) Site Investigation and Remediation Workplan Form 27 for Remediation #41913.

2.0 BACKGROUND ANALYSIS

Stantec conducted a Background Analysis at the Site to establish background conditions of the soil. This was done to provide evidence that any levels of soil suitability for reclamation standards and/or metals that are outside the acceptable limits in ECMC Table 915-1 are not related to the historic operations at the Site and will not adversely affect agronomic properties of the soil during final reclamation.

A total of five background soil samples were collected in the vicinity of the Site on November 19, 2025. The background soil samples were collected from depths ranging from 1 foot below ground surface (' bgs) to 4' bgs. The soil type found in that depth range is well-graded sand.

Laboratory results for the background samples were received on December 18, 2025. Laboratory analytical results for the background soil samples indicated levels of arsenic exist in the native soil above the applicable ECMC Table 915-1 standard.

See the attached **Decommissioning Form** for a list of soil samples and their associated soil types and depths. See the attached **Table 3** for the analytical results of the background soil samples. See the attached **Figure 3** for the locations of the background soil samples. A **Photographic Log** of background soil samples is also attached.

3.0 INITIAL SAMPLING EVENT

Civitas decommissioned one flowline at the Site. Following the decommissioning of Site infrastructure, Stantec collected the initial round of confirmation soil samples on October 29 and October 30, 2025. Soil samples were sent to Pace Analytical for analysis of the constituents in ECMC Table 915-1. Evidence of a spill was not observed in the field during the sampling event.

Laboratory results were received on November 24, 2025. Laboratory results indicated organic concentrations above applicable ECMC Table 915-1 standards at multiple areas along the flowline. A Spill was reported on November 25, 2025.

Laboratory results also indicated that inorganic levels outside applicable ECMC Table 915-1 standards exist along the flowline after comparing them to background samples. Verification sampling was not initiated due to the need for excavations in those areas.

The attached **Decommissioning Form** lists the infrastructure removed. See the attached **Table 2** for the analytical results of the confirmation soil samples. The attached **Figure 2** depicts the locations of the soil samples from the initial sampling event. A **Photographic Log** of the soil samples and field screening locations is also attached.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The soil type throughout the Site is comprised primarily of well-graded sand from depths of 3' bgs to 4' bgs. The native background soil type in the vicinity of the Site is comprised primarily of well-graded sand from depths of 1' bgs to 4' bgs.

One flowline was decommissioned at the Site. Hydrocarbon impacts were discovered at multiple areas along the flowline on November 24, 2025. A Spill was reported to ECMC on November 25, 2025. Excavations are planned along the flowline.

Decommissioning Form

Site Name: <u>Federal 32-10</u>	Date: <u>October 29, 2025, October 30, 2025, November 19, 2025</u>	ECMC Rem #: <u>41913</u>	Weather: <u>Variable</u>
Sampler Name: <u>Sam O'Boyle</u>	Surface Gradient: <u>SSE</u>	Livestock: <u>None</u>	Surrounding Land Use: <u>Undeveloped</u>

Sample ID	Date / Time	Depth	Soil PID (ppm)	Soil Stain / GW Sheen	Odor	Soil Description (USCS)	Photo (Y/N)	Associated Equipment	Lab (Y/N)
FL1-B12@4	10-29-25 / 16:40	4	0	No	No	SW	Y	FL	Yes
FL1-N12@3	10-29-25 / 16:05	3	0	No	No	SW	Y	FL	No
FL1-E12@3	10-29-25 / 16:15	3	0	No	No	SW	Y	FL	No
FL1-S12@3	10-29-25 / 16:20	3	0	No	No	SW	Y	FL	No
FL1-W12@3	10-29-25 / 16:30	3	0	No	No	SW	Y	FL	No
FL1-B12@3	10-29-25 / 16:55	3	0	No	No	SW	Y	FL	Yes
FL1-B1@3	10-29-25 / 17:05	3	0	No	No	SW	Y	FL	Yes
FL1-B2@3	10-29-25 / 17:10	3	0	No	No	SW	Y	FL	No
FL1-B3@3	10-29-25 / 17:20	3	0	No	No	SW	Y	FL	Yes
FL1-B4@3	10-29-25 / 17:25	3	0	No	No	SW	Y	FL	No
FL1-B5@3	10-29-25 / 17:35	3	0	No	No	SW	Y	FL	Yes
FL1-B6@3	10-29-25 / 17:40	3	0	No	No	SW	Y	FL	No
FL1-B7@3	10-29-25 / 17:50	3	0	No	No	SW	Y	FL	Yes
FL1-B8@3	10-29-25 / 17:55	3	0	No	No	SW	Y	FL	No
FL1-B9@3	10-29-25 / 18:05	3	0	No	No	SW	Y	FL	Yes
FL10-B10@3	10-30-25 / 07:00	3	0	No	No	SW	Y	FL	No
FL1-B11@3	10-30-25 / 07:10	3	1	No	No	SW	Y	FL	Yes
BG01@1	11-19-25 / 22:10	1	2	No	No	SW	Y	BG	Yes

Sample ID	Date / Time	Depth	Soil PID (ppm)	Soil Stain / GW Sheen	Odor	Soil Description (USCS)	Photo (Y/N)	Associated Equipment	Lab (Y/N)
BG02@1	11-19-25 / 22:20	1	3	No	No	SW	Y	BG	Yes
BG03@3	11-19-25 / 22:35	3	3	No	No	SW	Y	BG	Yes
BG04@3	11-19-25 / 22:45	3	2	No	No	SW	Y	BG	Yes
BG05@4	11-19-25 / 23:00	4	1	No	No	SW	Y	BG	Yes

Infrastructure Type	Count
Wellhead	0
Flowline	1
Separator	0
Dump Line	0
Oil Tank	0
PWV	0
ECD	0
Other (Specify)	0

Excavated Soil Date	Quantity (CY)
Ongoing	TBD
Total Removed:	TBD
Disposal Facility:	TBD

GW Recovery Date	Quantity (BBL)
Not encountered	0
Total Removed:	0
Disposal Facility:	NA
Date Encountered:	NA

FL Abandoned in Place (feet)	FL Removed (feet)
0	1,155

Notes:

- | | | | |
|-----|---------------------------|------|------------------------------------|
| AST | Above-ground storage tank | m | Meters |
| CY | Cubic Yards | NA | Not Applicable |
| BBL | Barrels | ppm | Parts per million |
| BG | Background | PWV | Produced water vault |
| PID | Photoionization detector | TBD | to be determined |
| ECD | Emissions control device | USCS | Unified Soil Classification System |
| FL | Flow line | WH | Well head |

Tables

Table 1
Soil Sample Locations
CRESTONE PEAK RESOURCES OPERATING LLC
Federal 32-10
Remediation Project # 41913

Sample ID	Date	Depth	PID (ppm)	Latitude	Longitude	Accuracy Value (m)	Photo (Y/N)	Lab (Y/N)
FL1-B12@4	10/29/2025	4	0	40.242306	-104.646391	0.31	Yes	Yes
FL1-N12@3	10/29/2025	3	0	40.242316	-104.646391	0.24	Yes	No
FL1-E12@3	10/29/2025	3	0	40.242314	-104.646384	0.29	Yes	No
FL1-S12@3	10/29/2025	3	0	40.242301	-104.646387	0.3	Yes	No
FL1-W12@3	10/29/2025	3	0	40.242304	-104.646399	0.29	Yes	No
FL1-B12@3	10/29/2025	3	0	40.242316	-104.646398	0.17	Yes	Yes
FL1-B1@3	10/29/2025	3	0	40.242449	-104.646468	0.18	Yes	Yes
FL1-B2@3	10/29/2025	3	0	40.242763	-104.646584	0.35	Yes	No
FL1-B3@3	10/29/2025	3	0	40.243108	-104.646633	0.28	Yes	Yes
FL1-B4@3	10/29/2025	3	0	40.243408	-104.646673	0.26	Yes	No
FL1-B5@3	10/29/2025	3	0	40.243699	-104.64671	0.34	Yes	Yes
FL1-B6@3	10/29/2025	3	0	40.24405	-104.646818	0.31	Yes	No
FL1-B7@3	10/29/2025	3	0	40.244388	-104.646986	0.36	Yes	Yes
FL1-B8@3	10/29/2025	3	0	40.244545	-104.64702	0.25	Yes	No
FL1-B9@3	10/29/2025	3	0	40.244737	-104.646973	0.18	Yes	Yes
FL10-B10@3	10/30/2025	3	0	40.244869	-104.646884	0.22	Yes	No
FL1-B11@3	10/30/2025	3	1	40.24504	-104.646743	0.25	Yes	Yes
BG01@1	11/19/2025	1	2	40.242473	-104.647088	0.33	Yes	Yes
BG02@1	11/19/2025	1	3	40.242485	-104.64705	0.42	Yes	Yes
BG03@3	11/19/2025	3	3	40.242521	-104.647005	0.2	Yes	Yes
BG04@3	11/19/2025	3	2	40.242546	-104.646944	0.16	Yes	Yes
BG05@4	11/19/2025	4	1	40.242576	-104.646915	0.22	Yes	Yes

Notes

PID photoionization detector
ppm parts per million

Table 2
Soil Sample Analytical Results
Crestone Peak Resources Operating LLC - 10633
Federal 32-10
Remediation Project # 41913

Constituent of Concern	ECMC Table 915-1 RSSL's	ECMC Table 915-1 GWSSL's	Results						
			FL1-B12@4	FL1-B1@3	FL1-B3@3	FL1-B5@3	FL1-B7@3	FL1-B9@3	FL1-B11@3
Sample Name	--								
Date	--		10/29/2025	10/29/2025	10/29/2025	10/29/2025	10/29/2025	10/29/2025	10/30/2025
PID (ppm)	--		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Depth (feet)	--		4	3	3	3	3	3	3
TPH (mg/kg)									
TPH - GRO	--		<2.69	<2.73	<3.35	<3.44	<2.85	<2.69	<3.15
TPH - DRO	--		<4.15	<4.18	<4.68	<4.76	<4.28	<4.15	<4.52
TPH - ORO	--		6.89	5.98	5.03	<4.76	<4.28	<4.15	<4.52
TPH - Total	500		<13.73	<12.89	<13.06	<12.96	<11.41	<10.99	<12.19
Soil Suitability for Reclamation									
EC (mmhos/cm)	4		0.22	0.11	0.118	0.115	0.0928	0.143	0.173
SAR (ratio)	6		0.605	0.214	0.982	0.183	0.951	0.256	0.162
pH (units)	6-8.3		8.06	6.81	6.92	7.69	7.25	7.30	8.49
boron (mg/L)	2		<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
Organic Compounds in Soils (mg/kg)									
benzene	1.2	0.0026	<0.00108	<0.00109	<0.00134	<0.00138	<0.00114	<0.00108	<0.00126
toluene	490	0.69	<0.0108	<0.0109	<0.0134	<0.0138	<0.0114	<0.0108	<0.0126
ethylbenzene	5.8	0.78	<0.0108	<0.0109	<0.0134	<0.0138	<0.0114	<0.0108	<0.0126
total xylenes	58	9.9	<0.108	<0.109	<0.134	<0.138	<0.114	<0.108	<0.126
1,2,4-trimethylbenzene	30	0.0081	<0.00538	<0.00546	<0.00671	<0.00689	<0.00570	<0.00538	<0.00630
1,3,5-trimethylbenzene	27	0.0087	<0.00538	<0.00546	<0.00671	<0.00689	<0.00570	<0.00538	<0.00630
naphthalene	2	0.0038	0.00590	0.00839	0.00537	0.00531	0.00572	0.00454	0.00473
acenaphthene	360	0.55	<0.0343	<0.0345	<0.0386	<0.0392	<0.0353	<0.0342	<0.0373
anthracene	1800	5.8	<0.0343	<0.0345	<0.0386	<0.0392	<0.0353	<0.0342	<0.0373
benz(a)anthracene	1.1	0.011	<0.00623	<0.00627	<0.00702	<0.00713	<0.00642	<0.00623	<0.00678
benzo(a)pyrene	0.11	0.24	<0.0343	<0.0345	<0.0386	<0.0392	<0.0353	<0.0342	<0.0373
benzo(b)fluoranthene	1.1	0.3	<0.0343	<0.0345	<0.0386	<0.0392	<0.0353	<0.0342	<0.0373
benzo(k)fluoranthene	11	2.9	<0.0343	<0.0345	<0.0386	<0.0392	<0.0353	<0.0342	<0.0373
chrysene	110	9	<0.0343	<0.0345	<0.0386	<0.0392	<0.0353	<0.0342	<0.0373
dibenzo(a,h)anthracene	0.11	0.096	<0.0343	<0.0345	<0.0386	<0.0392	<0.0353	<0.0342	<0.0373
fluoranthene	240	8.9	<0.0343	<0.0345	<0.0386	<0.0392	<0.0353	<0.0342	<0.0373
fluorene	240	0.54	<0.0343	<0.0345	<0.0386	<0.0392	<0.0353	<0.0342	<0.0373
indeno(1,2,3-cd)pyrene	1.1	0.98	<0.0343	<0.0345	<0.0386	<0.0392	<0.0353	<0.0342	<0.0373
pyrene	180	1.3	<0.0343	<0.0345	<0.0386	<0.0392	<0.0353	<0.0342	<0.0373
1-methylnaphthalene	18	0.006	<0.00311	<0.00314	<0.00351	<0.00357	<0.00321	<0.00311	<0.00339
2-methylnaphthalene	24	0.019	<0.0125	<0.0125	<0.0140	<0.0143	<0.0128	<0.0125	<0.0136
Metals in Soils (mg/kg)									
arsenic	0.68	0.29	1.13	1.09	1.12	1.20	0.941	1.05	1.45
barium	15000	82	39.0	42.7	31.5	39.3	30.6	35.1	46.4
cadmium	71	0.38	<0.108	<0.105	<0.117	<0.119	<0.107	<0.104	<0.113
chromium (VI)	0.3	0.00067	<0.208	<0.209	<0.234	<0.238	<0.214	<0.208	<0.226
copper	3100	46	<10.8	<10.5	<11.7	<11.9	<10.7	<10.4	<11.3
lead	400	14	18.9	<10.5	<11.7	<11.9	18.9	<10.4	<11.3
nickel	1500	26	<10.8	<10.5	<11.7	<11.9	<10.7	<10.4	<11.3
selenium	390	0.26	0.212	0.205	0.205	0.135	0.199	0.151	0.165
silver	390	0.8	<0.540	<0.523	<0.585	<0.594	<0.535	<0.519	<0.565
zinc	23000	370	<54.0	<52.3	<58.5	<59.4	<53.5	<51.9	<56.5

Notes

ECMC	Colorado Energy and Carbon Management Commission
RSSL	Residential Soil Screening Level
GWSSL	Protection of Groundwater Soil Screening Level
NA	not measured / not applicable
ppm	parts per million
TPH	total petroleum hydrocarbons
mg/kg	milligrams per kilogram
GRO	gasoline range organics
DRO	diesel range organics
ORO	oil range organics
EC	electrical conductivity
mmhos/cm	millimhos per centimeter
SAR	sodium adsorption ratio
mg/L	milligrams per liter
<	less than laboratory reporting limit
bold	result exceeds the applicable standard (after comparing to background, where applicable)
bold	result exceeds the applicable standard (after comparing to background, where applicable)
	reported detection limit is higher than standard

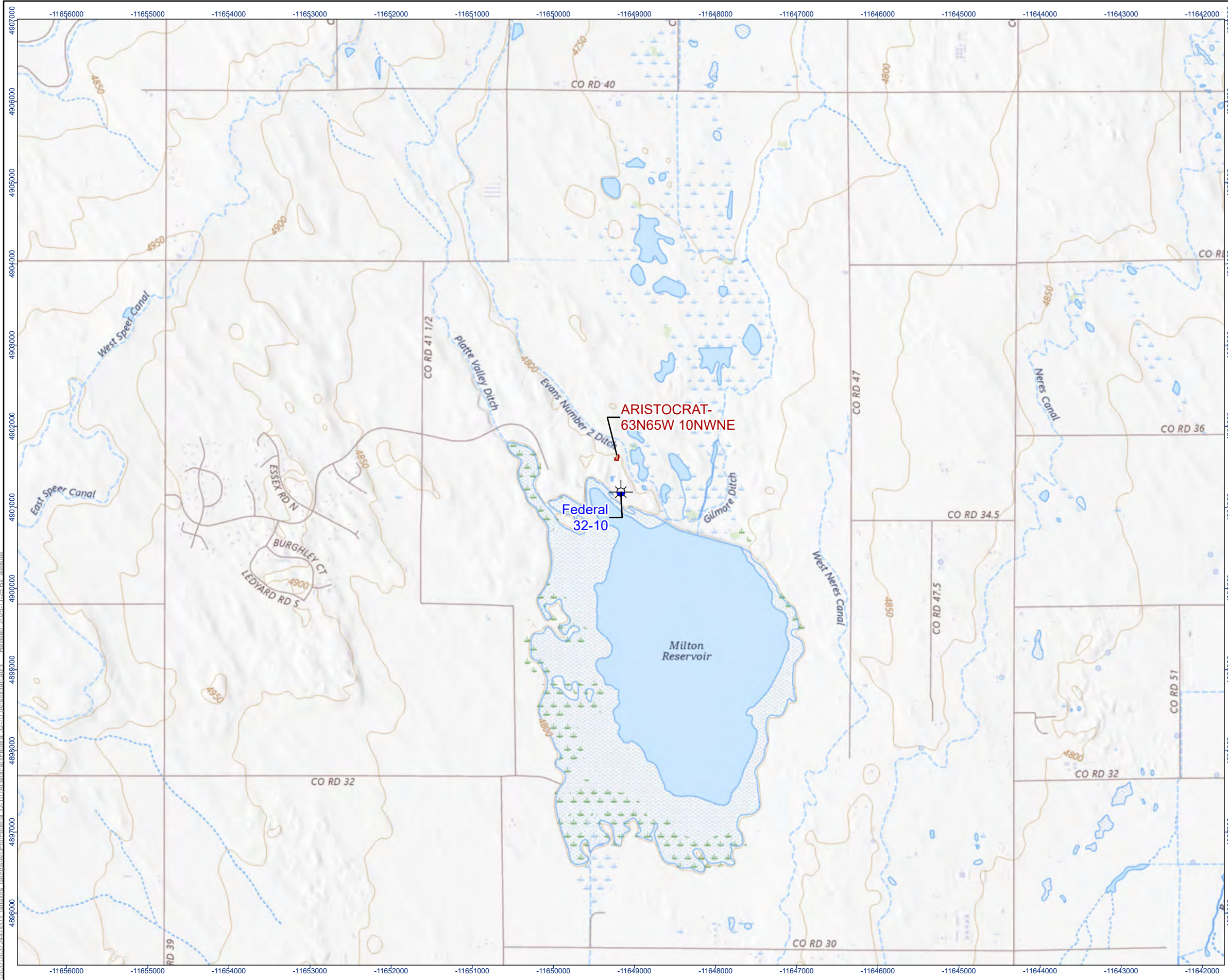
Table 3
Background Soil Sample Analytical Results
Crestone Peak Resources Operating LLC - 10633
Federal 32-10
Remediation Project # 41913

Constituent of Concern	ECMC Table 915-1 RSSL's	ECMC Table 915- 1 GWSSL's	Results				
			BG1-B1@1	BG2-B1@1	BG3-B1@3	BG4-B1@3	BG5-B1@4
Sample Name	--	--	BG1-B1@1	BG2-B1@1	BG3-B1@3	BG4-B1@3	BG5-B1@4
Date	--	--	11/19/2025	11/19/2025	11/19/2025	11/19/2025	11/19/2025
PID (ppm)	--	--	2	3	3	2	1
Depth	--	--	1	1	3	3	4
Soil Suitability for Reclamation							
EC (mmhos/cm)	4		0.216	0.255	0.285	0.390	0.256
SAR (ratio)	6		1.82	1.42	1.58	1.81	1.69
pH (units)	6-8.3		6.94	6.64	7.13	7.08	7.37
boron (mg/L)	2		0.0263	0.0263	0.0326	0.0575	0.0523
Metals in Soils (mg/kg)							
arsenic	0.68	0.29	1.30	1.43	0.922	1.35	1.23
barium	15000	82	36.4	33.7	32.5	42.8	40.7
cadmium	71	0.38	<0.114	<0.104	<0.109	<0.106	<0.105
chromium (VI)	0.3	0.00067	<0.209	<0.208	<0.209	<0.212	<0.211
copper	3100	46	<11.4	<10.4	<10.9	<10.6	<10.5
lead	400	14	<11.4	<10.4	<10.9	<10.6	<10.5
nickel	1500	26	<11.4	<10.4	<10.9	<10.6	<10.5
selenium	390	0.26	0.207	0.203	<0.109	0.192	0.180
silver	390	0.8	<0.571	<0.521	<0.543	<0.529	<0.527
zinc	23000	370	<57.1	<52.1	<54.3	<52.9	<52.7



Notes

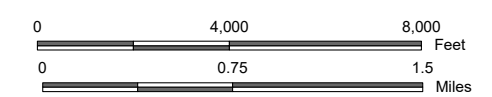
ECMC	Colorado Energy and Carbon Management Commission
RSSL	Residential Soil Screening Level
GWSSL	Protection of Groundwater Soil Screening Level
--	not measured / not applicable
ppm	parts per million
mg/kg	milligrams per kilogram
EC	electrical conductivity
mmhos/cm	millimhos per centimeter
SAR	sodium adsorption ratio
mg/L	milligrams per liter
<	less than laboratory reporting limit
	result exceeds the applicable standard
	result exceeds the applicable standard
	reported detection limit is higher than standard

Figures



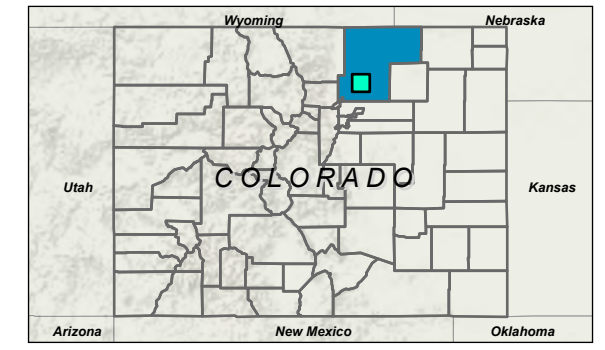
Legend

-  Wellhead Location
-  Tank Battery Location



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- Notes**
1. Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
 2. Background: USGS 7.5 Minute Quadrangle



Project Location
 SWNE SEC 10 T3N R65W
 WELD COUNTY, COLORADO

Drawn by AE on 11/25/2025
 Reviewed by CR on 11/25/2025
 203724474

Client/Project
 CRESTONE PEAK RESOURCES OPERATING LLC – 10633
 Federal 32-10
 (Remediation #41913)

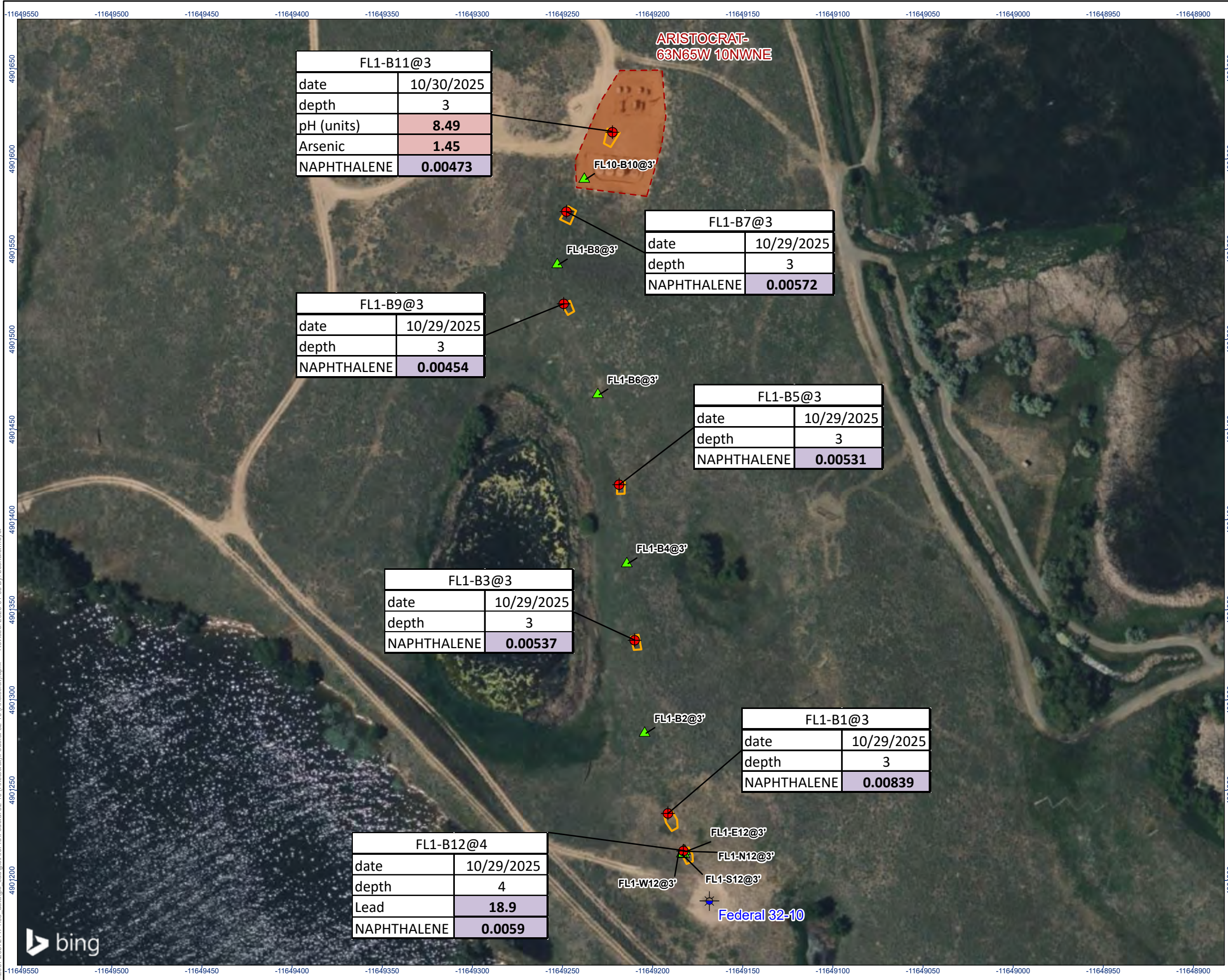
Figure No.

1

Title

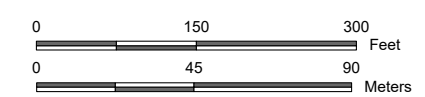
SITE LOCATION MAP

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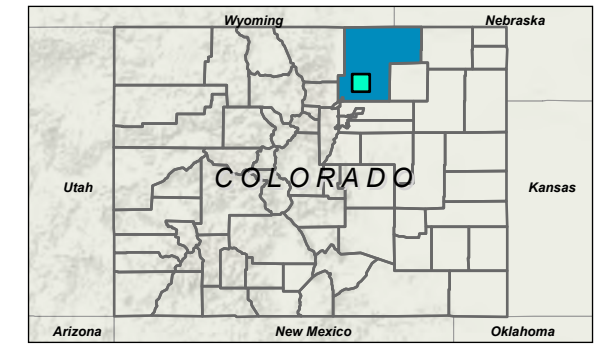
Legend

- Wellhead Location
- Field Screening Location Without Observable Impacts
- Soil Sample Location With Lab Exceedance(s)
- Approximate Excavation Extent
- Tank Battery Location



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- Notes**
- Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
 - Background: Bing Aerial Imagery



Project Location
 NENE SEC 25 T7N R67W
 WELD COUNTY, COLORADO

Drawn by AE on 1/6/2026
 Reviewed by CR on 1/6/2026
 203724474

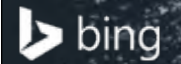
Client/Project
 CRESTONE PEAK RESOURCES OPERATING LLC – 10633
 Federal 32-10
 (Remediation #41913)

Figure No.

2



Title
SOIL SAMPLE LOCATIONS

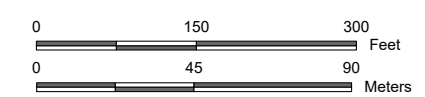
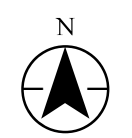
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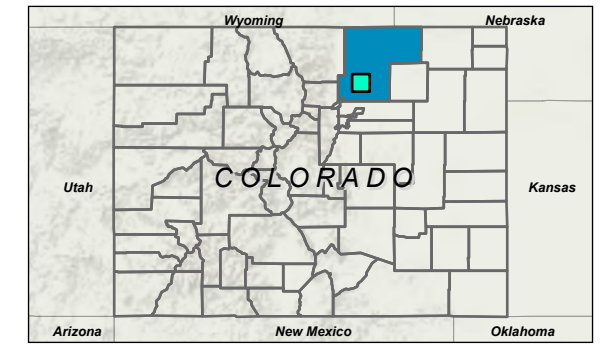
Legend

-  Wellhead Location
-  Background Sample Location



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- Notes**
1. Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
 2. Background: Bing Aerial Imagery



Project Location
 NENE SEC 25 T7N R67W
 WELD COUNTY, COLORADO

Drawn by BS on 1/6/2026
 Reviewed by CR on 1/6/2026
 203724474

Client/Project
 CRESTONE PEAK RESOURCES OPERATING LLC – 10633
 Federal 32-10
 (Remediation #41913)

Figure No.

3

Title
**SOIL SAMPLE LOCATIONS -
 BACKGROUNDS**

U:\203724474\GIS\ArcPro\Federal 32-10 (Aristocrat)\Federal 32-10 (Aristocrat)\aprx Revised: 2025-01-06 By: bschafelmeyer



Photographic Log



Sample ID: **FL1-B12@4**
Location:
40.24229946, -104.64638093

Depth (ft): 4



Sample ID: **FL1-N12@3**
Location:
40.24230948, -104.64638062

Depth (ft): 3



Sample ID: FL1-E12@3 Location: 40.24230726, -104.6463741
Depth (ft): 3



Sample ID: FL1-S12@3 Location: 40.24229449, -104.64637704
Depth (ft): 3



Sample ID: FL1-W12@3 Location: 40.24229797, -104.64638901
Depth (ft): 3



Sample ID: FL1-B12@3 Location: 40.24230928, -104.64638775
Depth (ft): 3





Sample ID: FL1-B1@3 Location: 40.24244211, -104.64645786
Depth (ft): 3



Sample ID: FL1-B2@3 Location: 40.24275627, -104.64657389
Depth (ft): 3



Sample ID: FL1-B3@3 Location: 40.24310176, -104.64662265
Depth (ft): 3



Sample ID: FL1-B4@3 Location: 40.2434016, -104.6466298
Depth (ft): 3







Sample ID: FL1-B5@3 Location: 40.2436928, -104.6466999
Depth (ft): 3



Sample ID: FL1-B6@3 Location: 40.24404373, -104.64680755
Depth (ft): 3



<p>Sample ID: FL1-B7@3 Location: 40.24438102, -104.64697606</p>	
<p>Depth (ft): 3</p>	

<p>Sample ID: FL1-B8@3 Location: 40.24453816, -104.64701016</p>	
<p>Depth (ft): 3</p>	

Sample ID: FL1-B9@3 Location: 40.24473087, -104.64696334
Depth (ft): 3



Sample ID: FL10-B10@3 Location: 40.24486288, -104.64687416
Depth (ft): 3





Sample ID: FL1-B11@3 Location: 40.24503384, -104.64673257
Depth (ft): 3



Sample ID: BG01@1 Location: 40.24246609, -104.64707804
Depth (ft): 1



<p>Sample ID: BG02@1 Location: 40.24247819, -104.64704022</p>	
<p>Depth (ft): 1</p>	

<p>Sample ID: BG03@3 Location: 40.24251432, -104.64699504</p>	
<p>Depth (ft): 3</p>	

<p>Sample ID: BG04@3 Location: 40.24253933, -104.64693438</p>	
<p>Depth (ft): 3</p>	

<p>Sample ID: BG05@4 Location: 40.24256955, -104.64690522</p>	
<p>Depth (ft): 4</p>	