

# Wellhead Closure Checklist

## COGCC Rule 911.a.(4) Environmental Site Closure Assessment Field Form

Additional attachments (optional):		Pit Closure <u>        </u>		Tank Battery Closure <u>        </u>		Flowline Closure 01/18/24 - 01/22/24		Partially Buried Vault Closure <u>        </u>	
Site Name & COGCC Facility Number: Sater CC #18-17D		Date: 11/14/23					Remediation Project #: 31822		
Associated Wells: 05-123-34613		Age of Site: Years					Number of Photos Attached: 6		
Location: (GPS coordinates of wellhead or southeastern most wellhead for multiple)						40.314070 / -104.478290			Estimated Facility Size (acres):
General Condition of Site: (General observations regarding housekeeping, corrosion, waste management, etc.)  Good Condition									
USCS Soil Type: SC				Estimated Depth to Groundwater: Approx. 20-40'					
Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth) None observed.									
Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth) None observed.									
Wellhead(s)									
Well API	05-123-34613								
Age	Years								
Condition of surface around wellhead	Good - No Staining or odor								
PID Readings	WH-N: 4.2	WH-E: 4.7	WH-S: 5.6	WH-W: 4.3					
Condition of subsurface (staining present)	Good - No Staining or odor								
PID Readings	2.5	2.2	2.6	4.6	5.8				
Sample taken? Location/Sample ID#	WH-SS-01	WH-SS-02	WH-SS-03	WH-SS-04	WH-FS-01				
Photo Number(s)	See photolog								
Other observations regarding wellheads: Well casing cut/capped following assessment.									
Summary									
Was impacted soil identified? <input checked="" type="checkbox"/> No      Yes - less than 10 cubic yards      Yes - more than 10 cubic yards									
Total number of samples field screened: 9				Total number of samples collected: 9					
Highest PID Reading: 5.8				Total number of samples submitted to lab for analysis: 1					
If more than 10 cubic yards of impacted soil were observed:									
Vertical extent:				Estimated spill volume:					
Lateral extent: N/A				Volume of soil removed:					
Is additional investigation required?									
Was groundwater encountered during the investigation? <input checked="" type="checkbox"/> No      Yes - not impacted or in contact with impacted soils      Yes - groundwater impacted and/or in contact with impacted soils									
Measured depth to groundwater:				Was remedial groundwater removal conducted?      Yes      No					
Date Groundwater was encountered:				Commencement date of removal:					
Sheen on groundwater?      Yes      No				Volume of groundwater removed prior to sampling:					
Free product observed?      Yes      No				Volume of groundwater removed post sampling:					
Total number of samples collected:				Total Volume of groundwater removed:					
Total number of samples submitted to lab for analysis:									

# Flowline Closure Checklist

## COGCC Rule 911.a.(4) Environmental Site Closure Assessment Field Form

Additional Attachments:	Tank Battery Closure <input type="checkbox"/>	Wellhead Closure 11/14/23	Pit Closure <input type="checkbox"/>	Partially Buried Vault Closure <input type="checkbox"/>
Site Name & COGCC Facility Number: Sater CC #18-17D		Date: 01/18/24 - 01/22/24		Remediation Project #: 31822
Associated Wells: 05-123-34613		Age of Site: Years		Number of Photos Attached: 10
Starting point: (GPS coordinates and descriptions) 40.313966 / -104.478195 at well				
End point: (GPS coordinates and descriptions) 40.316668 / -104.475247 at separator				
USCS Soil Type: SC			Estimated Depth to Groundwater: Approx. 20-40'	
Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth) None observed.				
Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth) None observed.				
Flowlines				
Flowline type	O, G, W			
Depth	~4-5'			
Age	Years			
Length	~1290'			
Construction Material	Steel			
Were flowlines pulled?	Yes - Flowline Removed			
Visual Integrity of lines	Good			
Visual impacts if trenched	None observed.			
PID Readings if trenched	1.5	8.4	4.5	1.0 to 7.0
Sample taken? Location/Sample ID#	FL-SS-06	FL-SS-08	FL-SS-09	7 additional bellholes/cut-points for removal field screened-- see PID table
Photo Number(s)	See photolog			
Other observations regarding on location flowlines: Flowline removed. Pt. A assessed during wellhead decommissioning. Flowline terminus/Pt. B at separator and 3 directional changes assessed and lab analyzed. 7 additional cut-points/bellholes for removal field screened.				
Summary				
Was impacted soil identified? <input checked="" type="checkbox"/> No      Yes - less than 10 cubic yards      Yes - more than 10 cubic yards				
Total number of samples field screened: 10			Total number of samples collected: 10	
Highest PID Reading: 8.4			Total number of samples submitted to lab for analysis: 4	
If more than 10 cubic yards of impacted soil were observed:				
Vertical extent: N/A			Estimated spill volume:	
Lateral extent: N/A			Volume of soil removed:	
Is additional investigation required?				
Was groundwater encountered during the investigation? <input checked="" type="checkbox"/> No      Yes - not impacted or in contact with impacted soils      Yes - groundwater impacted and/or in contact with impacted soils				
Measured depth to groundwater:			Was remedial groundwater removal conducted? Yes      No	
Date Groundwater was encountered:			Commencement date of removal:	
Sheen on groundwater? Yes      No			Volume of groundwater removed prior to sampling:	
Free product observed? Yes      No			Volume of groundwater removed post sampling:	
Total number of samples collected:			Total Volume of groundwater removed:	
Total number of samples submitted to lab for analysis:				



## **FIGURES**

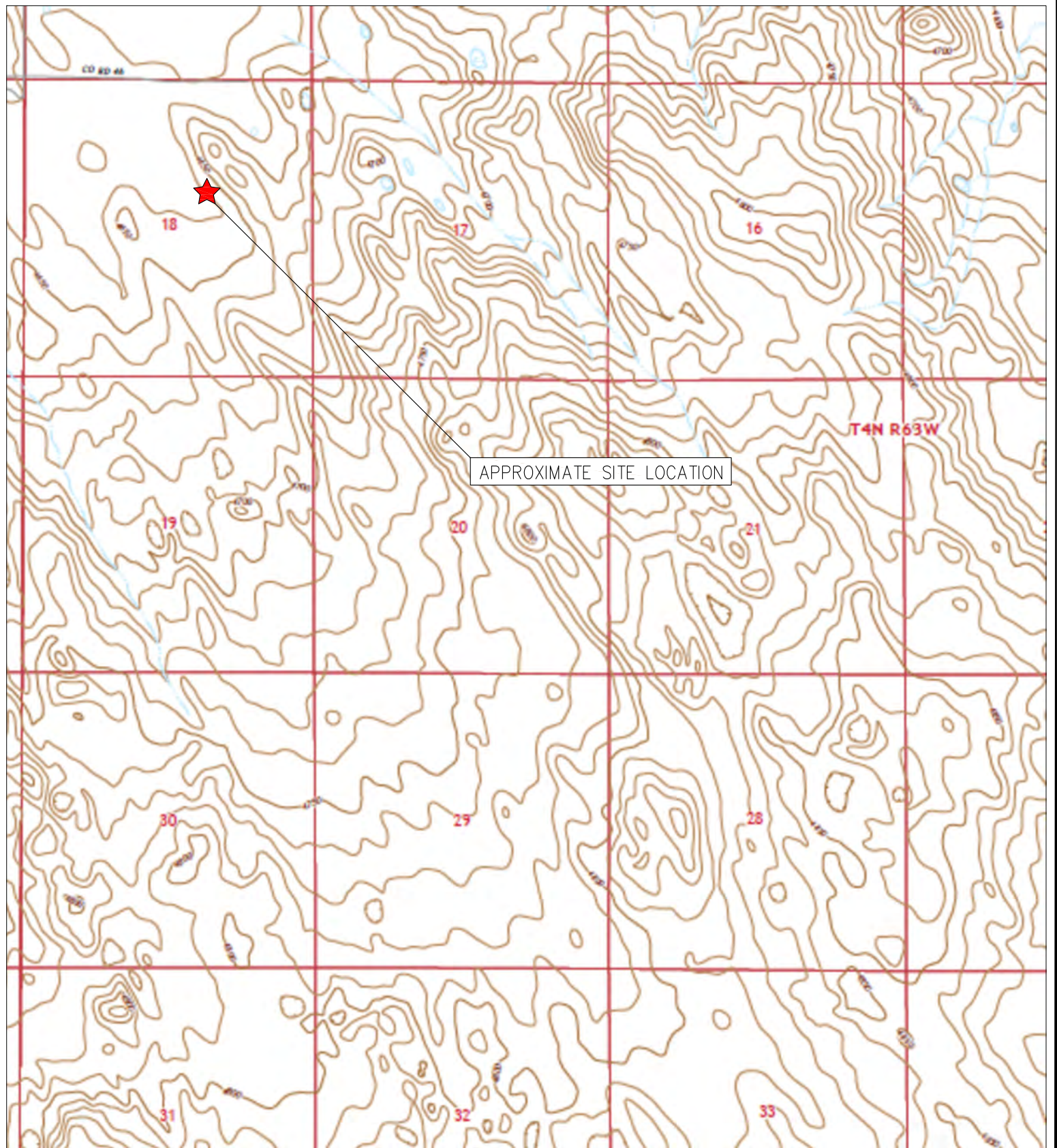
**Figure 1: Topographic Site Location Map**

**Figure 2: Aerial Site Location Map**

**Figure 3: Soil Analytical Map**

**Figure 4: Polycyclic Aromatic Hydrocarbons Map**

**Figure 5: Metals in Soil Map**

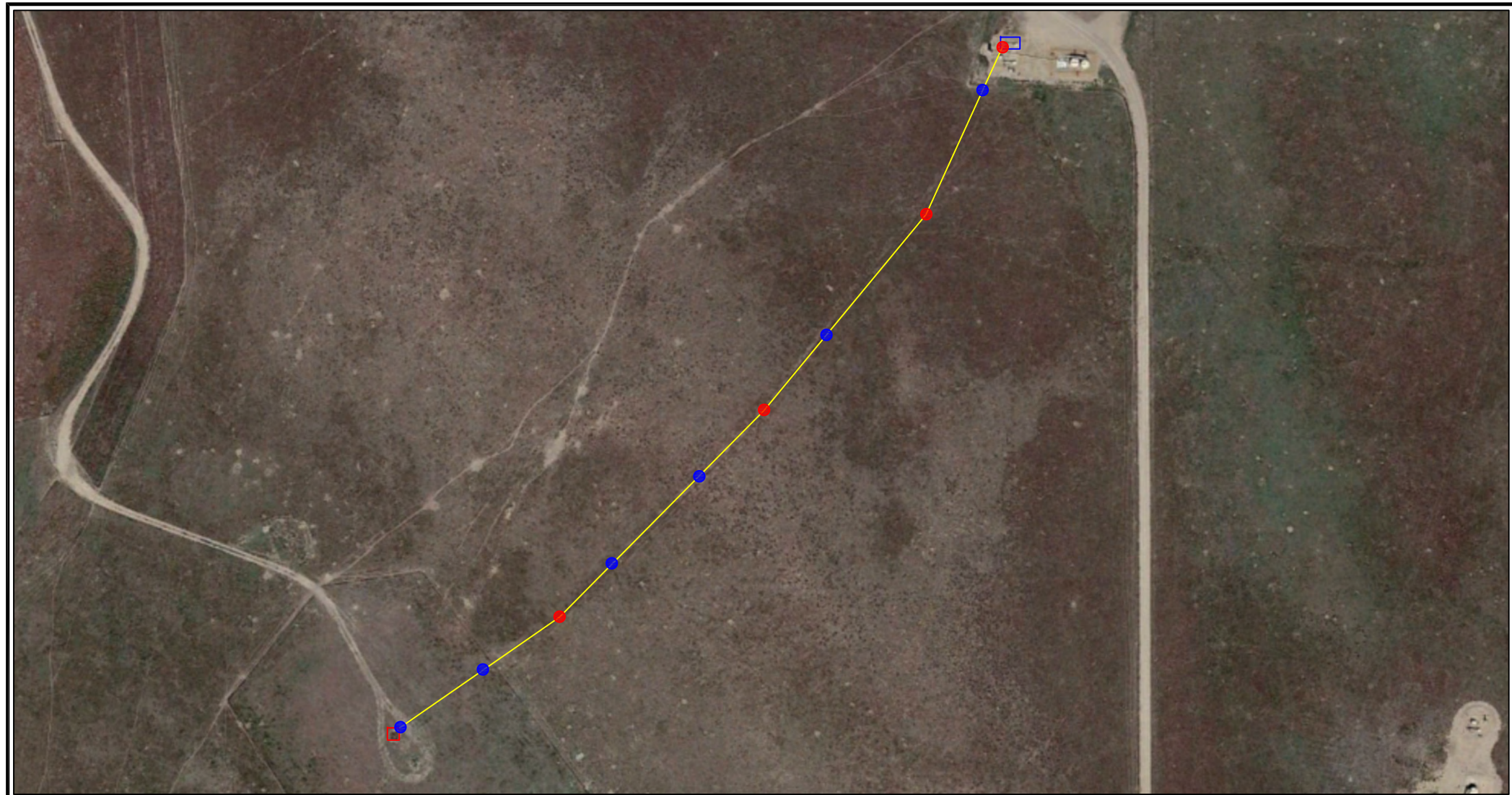


TOPOGRAPHIC SITE LOCATION MAP  
 SATER CC #18-17D  
 CLOSURE ASSESSMENT  
 40.314070 / -104.478290  
 SW¼ NE¼ SEC.18 T4N R63W 6PM  
 WELD COUNTY, COLORADO  
 API # 05-123-34613  
 REMEDIATION # 31822



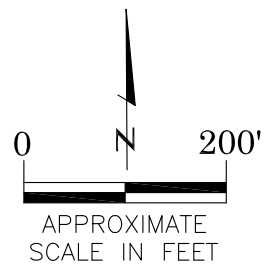
**EAGLE**  
 ENVIRONMENTAL  
 CONSULTING, LLC

8000 W 44th Ave, Wheat Ridge, CO 80033  
 Ph: 303-433-0479 • F: 303-325-5449



LEGEND

- FORMER SATER CC #18-17D WELLHEAD (PLUGGED AND ABANDONED)
- ASSOCIATED SEPARATOR
- APPROXIMATE FLOWLINE LOCATION (REMOVED)
- APPROXIMATE FLOWLINE SAMPLE LOCATIONS - FIELD SCREENED
- APPROXIMATE FLOWLINE SAMPLE LOCATIONS - LAB SUBMITTED



AERIAL SITE LOCATION MAP  
 SATER CC #18-17D  
 CLOSURE ASSESSMENT  
 40.314070 / -104.478290  
 SW¼ NE¼ SEC.18 T4N R63W 6PM  
 WELD COUNTY, COLORADO  
 API # 05-123-34613  
 REMEDIATION # 31822

FIGURE NO.  
2

DRAWN BY:  
RS



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**LEGEND**

- WELLHEAD ASSESSMENT BOUNDARIES
- APPROXIMATE FLOWLINE LOCATION (REMOVED)
- APPROXIMATE LOCATION OF SOIL SAMPLES FIELD SCREENED, ONLY, WITH PHOTOIONIZATION DETECTOR
- APPROXIMATE LOCATION OF SOIL SAMPLES SUBMITTED FOR LABORATORY ANALYSIS

**PARAMETERS**

**SAMPLE LOCATION**  
DATE  
DEPTH (FEET)

B = BENZENE (mg/kg)  
T = TOLUENE (mg/kg)  
E = ETHYLBENZENE (mg/kg)  
X = TOTAL XYLENES (mg/kg)  
N = NAPHTHALENE (mg/kg)  
G = TPH-GRO (mg/kg)  
D = TPH-DRO (mg/kg)  
R = TPH-RRO (mg/kg)  
1,2,4-TMB = 1,2,4 TRIMETHYLBENZENE (mg/kg)  
1,3,5-TMB = 1,3,5 TRIMETHYLBENZENE (mg/kg)  
Brn= BORON (mg/L)  
EC = SPECIFIC CONDUCTANCE (mmhos/cm)  
SAR= SODIUM ADSORPTION RATIO  
pH = pH (PH UNITS)

mg/kg = MILLIGRAMS PER KILOGRAM  
mg/L = MILLIGRAMS PER LITER  
mmhos/cm = MILLIMHOS PER CENTIMETER

TPH-GRO = TOTAL PETROLEUM HYDROCARBONS - GASOLINE RANGE ORGANICS  
TPH-DRO = TOTAL PETROLEUM HYDROCARBONS - DIESEL RANGE ORGANICS  
TPH-RRO = TOTAL PETROLEUM HYDROCARBONS - RESIDUAL RANGE ORGANICS

**NOTES:**  
VALUES PRESENTED WITH A LESS THAN SYMBOL (<) DID NOT CONTAIN CONCENTRATIONS AT OR ABOVE LABORATORY DETECTION LIMITS

VALUES PRESENTED IN **BOLD** EXCEED ECMC TABLE 915-1 REGULATORY LIMITS.

VALUES PRESENTED WITH ASTERISK (\*) EXCEED ECMC TABLE 915-1 PROTECTION OF GROUNDWATER SOIL SCREENING LEVELS, ONLY.

ECMC = ENERGY & CARBON MANAGEMENT COMMISSION

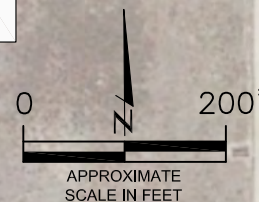
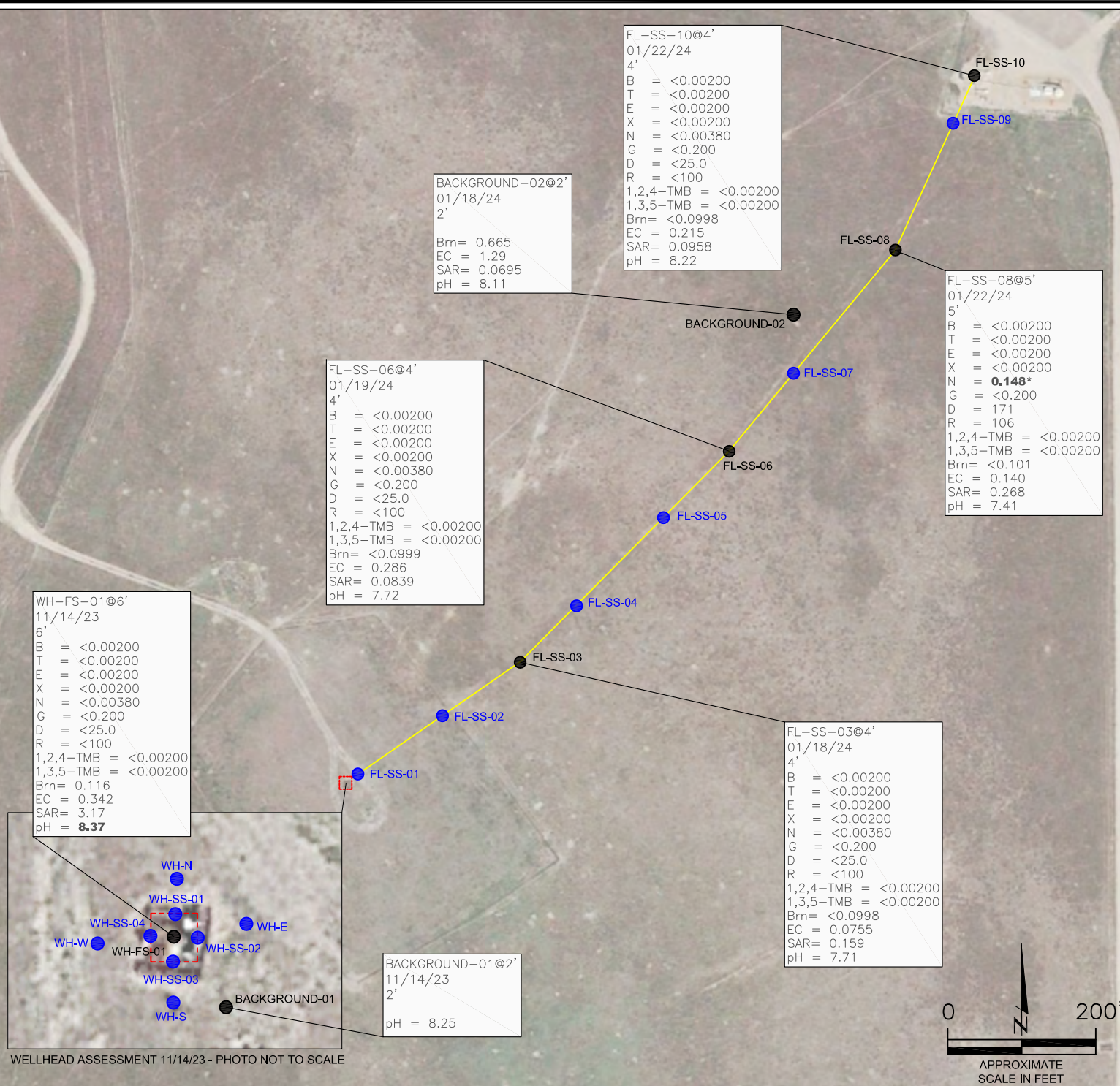
SOIL ANALYTICAL MAP  
SATER CC #18-17D  
CLOSURE ASSESSMENT  
40.314070 / -104.478290  
SW¼ NE¼ SEC.18 T4N R63W 6PM  
WELD COUNTY, COLORADO  
API # 05-123-34613  
REMEDATION # 31822

FIGURE NO.  
3

DRAWN BY:  
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WELLHEAD ASSESSMENT 11/14/23 - PHOTO NOT TO SCALE

WH-FS-01@6'  
11/14/23  
6'

1-Methylnaphthalene = <0.002  
2-Methylnaphthalene = <0.002  
Acenaphthene = <0.020  
Anthracene = <0.020  
Benzo(a)anthracene = <0.005  
Benzo(a)pyrene = <0.020  
Benzo(b)fluoranthene = <0.020  
Benzo(k)fluoranthene = <0.020  
Chrysene = <0.020  
Dibenzo(a,h)anthracene = <0.020  
Fluoranthene = <0.020  
Fluorene = <0.020  
Indeno(1,2,3-CD)pyrene = <0.020  
Pyrene = <0.020

FL-SS-06@4'  
01/19/24  
4'

1-Methylnaphthalene = <0.002  
2-Methylnaphthalene = <0.002  
Acenaphthene = <0.020  
Anthracene = <0.020  
Benzo(a)anthracene = 0.005  
Benzo(a)pyrene = <0.020  
Benzo(b)fluoranthene = <0.020  
Benzo(k)fluoranthene = <0.020  
Chrysene = <0.020  
Dibenzo(a,h)anthracene = <0.020  
Fluoranthene = <0.020  
Fluorene = <0.020  
Indeno(1,2,3-CD)pyrene = <0.020  
Pyrene = <0.020

FL-SS-10@4'  
01/22/24  
4'

1-Methylnaphthalene = <0.002  
2-Methylnaphthalene = <0.002  
Acenaphthene = <0.020  
Anthracene = <0.020  
Benzo(a)anthracene = 0.007  
Benzo(a)pyrene = <0.020  
Benzo(b)fluoranthene = <0.020  
Benzo(k)fluoranthene = <0.020  
Chrysene = <0.020  
Dibenzo(a,h)anthracene = <0.020  
Fluoranthene = <0.020  
Fluorene = <0.020  
Indeno(1,2,3-CD)pyrene = <0.020  
Pyrene = <0.020

FL-SS-03@4'  
01/18/24  
4'

1-Methylnaphthalene = <0.002  
2-Methylnaphthalene = <0.002  
Acenaphthene = <0.020  
Anthracene = <0.020  
Benzo(a)anthracene = <0.005  
Benzo(a)pyrene = <0.020  
Benzo(b)fluoranthene = <0.020  
Benzo(k)fluoranthene = <0.020  
Chrysene = <0.020  
Dibenzo(a,h)anthracene = <0.020  
Fluoranthene = <0.020  
Fluorene = <0.020  
Indeno(1,2,3-CD)pyrene = <0.020  
Pyrene = <0.020

FL-SS-08@5'  
01/22/24  
5'

1-Methylnaphthalene = **0.692\***  
2-Methylnaphthalene = **1.29\***  
Acenaphthene = **5.97\***  
Anthracene = **11.9\***  
Benzo(a)anthracene = **12.7**  
Benzo(a)pyrene = **7.74**  
Benzo(b)fluoranthene = **8.57**  
Benzo(k)fluoranthene = **3.97\***  
Chrysene = **12.2\***  
Dibenzo(a,h)anthracene = **1.16**  
Fluoranthene = **45.7\***  
Fluorene = **8.30\***  
Indeno(1,2,3-CD)pyrene = **3.53**  
Pyrene = **28.6\***

- LEGEND**
- WELLHEAD ASSESSMENT BOUNDARIES
  - APPROXIMATE FLOWLINE LOCATION (REMOVED)
  - APPROXIMATE LOCATION OF SOIL SAMPLES FIELD SCREENED, ONLY, WITH PHOTOIONIZATION DETECTOR
  - SS-02
  - SS-02 APPROXIMATE LOCATION OF SOIL SAMPLES SUBMITTED FOR LABORATORY ANALYSIS

**PARAMETERS**

SAMPLE LOCATION  
DATE SAMPLE COLLECTED  
APPROXIMATE DEPTH

POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) (mg/kg)

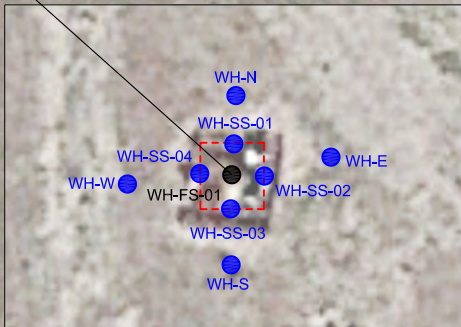
mg/kg = MILLIGRAMS PER KILOGRAM

**NOTES:**  
VALUES PRESENTED WITH A LESS THAN SYMBOL (<) DID NOT CONTAIN CONCENTRATIONS AT OR ABOVE LABORATORY DETECTION LIMITS.

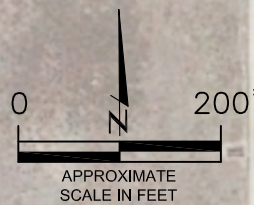
VALUES PRESENTED IN **BOLD** EXCEED ECMC TABLE 915-1 REGULATORY LIMITS

VALUES PRESENTED WITH AN ASTERISK (\*) EXCEED ECMC TABLE 915-1 GROUNDWATER SOIL SCREENING LEVELS, ONLY.

ECMC = ENERGY & CARBON MANAGEMENT COMMISSION



WELLHEAD ASSESSMENT 11/14/23 - PHOTO NOT TO SCALE



**POLYCYCLIC AROMATIC HYDROCARBONS MAP**  
SATER CC #18-17D  
CLOSURE ASSESSMENT  
40.314070 / -104.478290  
SW¼ NE¼ SEC.18 T4N R63W 6PM  
WELD COUNTY, COLORADO  
API # 05-123-34613  
REMEDATION # 31822

FIGURE NO.  
4

DRAWN BY:  
KM

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**LEGEND**

- WELLHEAD ASSESSMENT BOUNDARIES
- APPROXIMATE FLOWLINE LOCATION (REMOVED)
- APPROXIMATE LOCATION OF SOIL SAMPLES FIELD SCREENED, ONLY, WITH PHOTOIONIZATION DETECTOR
- APPROXIMATE LOCATION OF SOIL SAMPLES SUBMITTED FOR LABORATORY ANALYSIS

**PARAMETERS**

SAMPLE LOCATION	DATE SAMPLE COLLECTED	APPROXIMATE DEPTH
Arsenic = (mg/kg)		
Barium = (mg/kg)		
Cadmium = (mg/kg)		
Chromium (VI) = (mg/kg)		
Copper = (mg/kg)		
Lead = (mg/kg)		
Nickel = (mg/kg)		
Selenium = (mg/kg)		
Silver = (mg/kg)		
Zinc = (mg/kg)		

mg/kg = MILLIGRAMS PER KILOGRAM

**NOTES:**

VALUES PRESENTED WITH A LESS THAN SYMBOL (<) DID NOT CONTAIN CONCENTRATIONS AT/OR ABOVE LABORATORY REPORTING LIMITS AND/OR MINIMUM DETECTION LIMITS.

VALUES PRESENTED IN **BOLD** EXCEED ECMC TABLE 915-1 REGULATORY LIMITS AND APPLICABLE LOCAL CLEAN-UP LEVELS.

ELEVATED METALS ARE NATURALLY OCCURRING IN COLORADO. LOCAL CLEAN-UP LEVELS ARE 1.25\*BACKGROUND HIGH CONCENTRATION WHERE APPLICABLE.

\*VALUES EXCEED ECMC TABLE 915-1 PROTECTION OF GROUNDWATER SOIL SCREENING LEVELS, ONLY.

\*\*ACHIEVABLE PRACTICAL QUANTITATIVE LIMITS FOR HEXAVALENT CHROMIUM (Cr VI) IN SOILS IS IN THE RANGE OF 0.1 TO 1 mg/kg. (1) SAMPLE REQUIRED DILUTION, RAISING LABORATORY REPORTING AND DETECTION LIMITS - SAMPLE NON-DETECT.

ECMC = ENERGY & CARBON MANAGEMENT COMMISSION

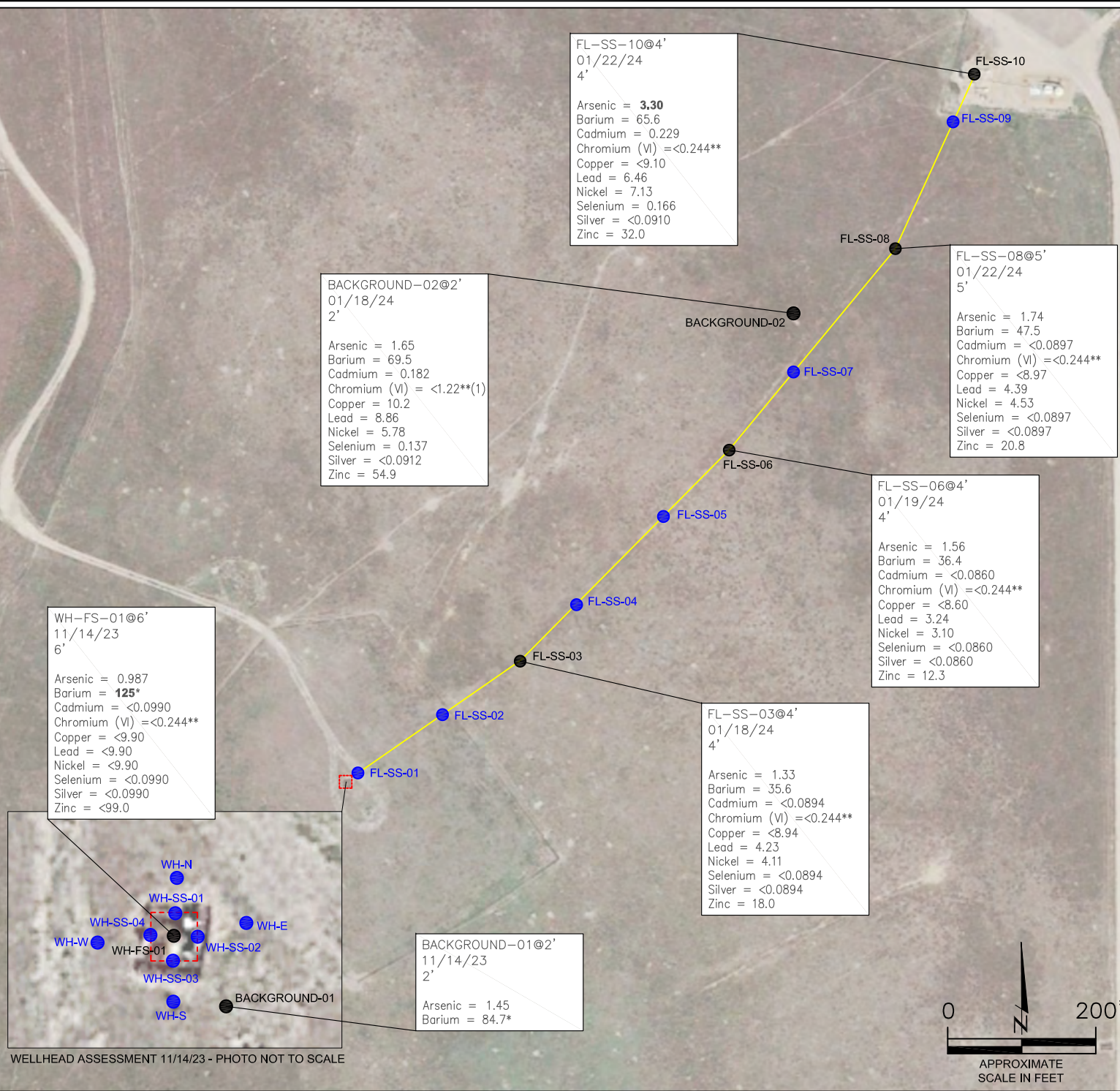
**METALS IN SOIL MAP**  
 SATER CC #18-17D  
 CLOSURE ASSESSMENT  
 40.314070 / -104.478290  
 SW¼ NE¼ SEC.18 T4N R63W 6PM  
 WELD COUNTY, COLORADO  
 API # 05-123-34613  
 REMEDIATION # 31822

FIGURE NO.  
5

DRAWN BY:  
KM



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WELLHEAD ASSESSMENT 11/14/23 - PHOTO NOT TO SCALE



## **TABLES**

**Table 1: Photoionization Detector Reading Summary**

**Table 2: Soil Analytical Results Summary**

**TABLE 1**  
**PHOTOIONIZATION DETECTOR READING SUMMARY**  
**SATER CC #18-17D**  
**CLOSURE ASSESSMENT**  
**40.314070 / -104.478290**  
**SW¼ NE¼ SEC.18 T4N R63W 6PM**  
**WELD COUNTY, COLORADO**  
**API # 05-123-34613**  
**REMEDICATION # 31822**

Sample Location (Latitude/Longitude)	Date	Approximate Depth (feet)	PID Reading (ppm-v)	Lab Submission (Y/N)
WH-FS-01 @ 6' (40.314072 / -104.478301)	11/14/23	6	5.8	Y
WH-SS-01 @ 5' (40.314087 / -104.478298)	11/14/23	5	2.5	N
WH-SS-02 @ 5' (40.314076 / -104.478288)	11/14/23	5	2.2	N
WH-SS-03 @ 5' (40.314065 / -104.478301)	11/14/23	5	2.6	N
WH-SS-04 @ 5' (40.314077 / -104.478318)	11/14/23	5	4.6	N
WH-N @ 0.5' (40.314101 / -104.478297)	11/14/23	0.5	4.2	N
WH-E @ 0.5' (40.314073 / -104.478266)	11/14/23	0.5	4.7	N
WH-S @ 0.5' (40.314046 / -104.478301)	11/14/23	0.5	5.6	N
WH-W @ 0.5' (40.314075 / -104.478346)	11/14/23	0.5	4.3	N
Background-01 @ 2' (40.314045 / -104.478266)	11/14/23	2	0.1	Y
FL-SS-01 @ 4' (40.314068 / -104.478290)	01/18/24	4	1.4	N
FL-SS-02 @ 4' (40.314334 / -104.477821)	01/18/24	4	1.0	N
FL-SS-03 @ 4' (40.314529 / -104.477461)	01/18/24	4	1.1	Y
FL-SS-04 @ 4' (40.314755 / -104.477193)	01/18/24	4	1.3	N
FL-SS-05 @ 4' (40.315038 / -104.476810)	01/18/24	4	1.3	N
FL-SS-06 @ 4' (40.315299 / -104.476463)	01/19/24	4	1.5	Y
FL-SS-07 @ 4' (40.315588 / -104.476146)	01/19/24	4	1.2	N
FL-SS-08 @ 5' (40.315927 / -104.475804)	01/22/24	5	8.4	Y
FL-SS-09 @ 5' (40.316461 / -104.475410)	01/22/24	5	7.0	N
FL-SS-10 @ 4' (40.316681 / -104.475251)	01/22/24	4	4.5	Y
Background-02 @ 2' (40.315776 / -104.476142)	01/18/24	2	0.8	Y
(Y/N) = Yes or No ppm-v = parts per million by volume PID = Photoionization Detector				

TABLE 2  
SOIL ANALYTICAL RESULTS SUMMARY  
SATER CC #18-17D  
CLOSURE ASSESSMENT  
40.314070 / -104.478290  
SW¼ NE¼ SEC.18 T4N R63W 6PM  
WELD COUNTY, COLORADO  
API # 05-123-34613  
REMEDIATION # 31822

Sample Location (Latitude / Longitude)		WH-FS-01 @ 6'	Background-01 @ 2'	FL-SS-03 @ 4'	FL-SS-06 @ 4'	FL-SS-08 @ 5'	FL-SS-10 @ 4'	Background-02 @ 2'			
Sample Date		11/14/2023	11/14/2023	1/18/2024	1/19/2024	1/22/2024	1/22/2024	1/18/2024			
Sample Depth		6	2	4	4	5	4	2			
PID Reading (ppm-v)		5.8	0.1	1.1	1.5	8.4	4.5	0.8			
Regulatory Limits											
Chemical of Concern	Units	ECMC Table 915-1 RSSLs	ECMC Table 915-1 GSSLs	Local Clean-Up Level							
VOLATILE ORGANIC COMPOUNDS											
Benzene	mg/kg	1.2	0.0026	--	<0.00200	NA	<0.00200	<0.00200	NA		
Toluene	mg/kg	490	0.69	--	<0.00200	NA	<0.00200	<0.00200	NA		
Ethylbenzene	mg/kg	5.8	0.78	--	<0.00200	NA	<0.00200	<0.00200	NA		
Total Xylenes	mg/kg	58	9.9	--	<0.00200	NA	<0.00200	<0.00200	NA		
Naphthalene	mg/kg	2	0.0038	--	<0.00380	NA	<0.00380	<b>0.148*</b>	NA		
1,2,4-Trimethylbenzene	mg/kg	30	0.0081	--	<0.00200	NA	<0.00200	<0.00200	NA		
1,3,5-Trimethylbenzene	mg/kg	27	0.0087	--	<0.00200	NA	<0.00200	<0.00200	NA		
TOTAL PETROLEUM HYDROCARBONS											
TPH-GRO	mg/kg	500	--	--	<0.200	NA	<0.200	<0.200	NA		
TPH-DRO	mg/kg	500	--	--	<25.0	NA	<25.0	171	<25.0		
TPH-RRO	mg/kg	500	--	--	<100	NA	<100	106	<100		
POLYCYCLIC AROMATIC HYDROCARBONS											
1-Methyl-naphthalene	mg/kg	18	0.006	--	<0.002	NA	<0.002	<b>0.692*</b>	<0.002	NA	
2-Methyl-naphthalene	mg/kg	24	0.019	--	<0.002	NA	<0.002	<b>1.29*</b>	<0.002	NA	
Acenaphthene	mg/kg	360	0.55	--	<0.020	NA	<0.020	<b>5.97*</b>	<0.020	NA	
Anthracene	mg/kg	1800	5.8	--	<0.020	NA	<0.020	<b>11.9*</b>	<0.020	NA	
Benzo(a)-anthracene	mg/kg	1.1	0.011	--	<0.005	NA	<0.005	0.005	<b>12.7</b>	0.007	
Benzo(a)-pyrene	mg/kg	0.11	0.24	--	<0.020	NA	<0.020	<0.020	<b>7.74</b>	<0.020	
Benzo(b)-fluoranthene	mg/kg	1.1	0.3	--	<0.020	NA	<0.020	<0.020	<b>8.57</b>	<0.020	
Benzo(k)-fluoranthene	mg/kg	11	2.9	--	<0.020	NA	<0.020	<0.020	<b>3.97*</b>	<0.020	
Chrysene	mg/kg	110	9	--	<0.020	NA	<0.020	<0.020	<b>12.2*</b>	<0.020	
Dibenzo(a,h)-anthracene	mg/kg	0.11	0.096	--	<0.020	NA	<0.020	<0.020	<b>1.16</b>	<0.020	
Fluoranthene	mg/kg	240	8.9	--	<0.020	NA	<0.020	<0.020	<b>45.7*</b>	<0.020	
Fluorene	mg/kg	240	0.54	--	<0.020	NA	<0.020	<0.020	<b>8.30*</b>	<0.020	
Indeno(1,2,3-cd)-pyrene	mg/kg	1.1	0.98	--	<0.020	NA	<0.020	<0.020	<b>3.53</b>	<0.020	
Pyrene	mg/kg	180	1.3	--	<0.020	NA	<0.020	<0.020	<b>28.6*</b>	<0.020	
SOIL SUITABILITY (Inorganics)											
Boron	mg/L	2	--	--	0.116	NA	<0.0998	<0.0999	<0.101	<0.0998	0.665
pH	standard unit	6-8.3	--	--	<b>8.37</b>	8.25	7.71	7.72	7.41	8.22	8.11
Sodium Adsorption Ratio (SAR)	--	<6	--	--	3.17	NA	0.159	0.286	0.268	0.0958	0.0695
Specific Conductance (EC)	mmhos/cm	<4	--	--	0.342	NA	0.0755	0.0839	0.140	0.215	1.29
METALS											
Arsenic	mg/kg	0.68	0.29	2.18	0.987	1.45	1.33	1.56	1.74	<b>3.30</b>	1.65
Barium	mg/kg	15000	82	106	<b>125*</b>	84.7*	35.6	36.4	47.5	65.6	69.5
Cadmium	mg/kg	71	0.38	--	<0.0990	NA	<0.894	<0.0860	<0.0897	0.229	0.182
Copper	mg/kg	3100	46	--	<9.90	NA	<8.94	<8.60	<8.97	<9.10	10.2
Lead	mg/kg	400	14	--	<9.90	NA	4.23	3.24	4.39	6.46	8.86
Nickel	mg/kg	1500	26	--	<9.90	NA	4.11	3.10	4.53	7.13	5.78
Selenium	mg/kg	390	0.26	--	<0.0990	NA	<0.0894	<0.0860	<0.0897	0.166	0.137
Silver	mg/kg	390	0.8	--	<0.0990	NA	<0.0894	<0.0860	<0.0897	<0.0910	<0.0912
Zinc	mg/kg	23000	370	--	<99.0	NA	18.0	12.3	20.8	32.0	54.9
Hexavalent Chromium	mg/kg	0.3**	0.00067**	0.1 to 1.0**	<0.244**	NA	<0.244**	<0.244**	<0.244**	<0.244**	<1.22**(1)

ECMC = Energy & Carbon Management Commission

mg/kg = milligrams per kilogram

mmhos/cm = millimhos per centimeter

PID = Photoionization Detector

ppm-v = parts per million by volume

mg/L = milligrams per liter

NA = Not Analyzed

Notes:

Values presented with a less than symbol (<) did not contain concentrations at or above the laboratory reporting limit and/or minimum detection limit.

Elevated metals are naturally occurring in Colorado. Local Clean-up Levels are 1.25\*Background high concentrations where applicable.

Values presented in **BOLD** exceed ECMC Table 915-1 Regulatory Limits. Values presented with asterisk (\*) exceed ECMC Table 915-1 GSSLs, only.

\*\*Achievable practical quantitative limits for Hexavalent Chromium in soils is in the range of 0.1 to 1 mg/kg. (1) Sample required dilution, raising laboratory detection and reporting limits - sample non-detect.



## **ATTACHMENT A**

### **Photo Log**

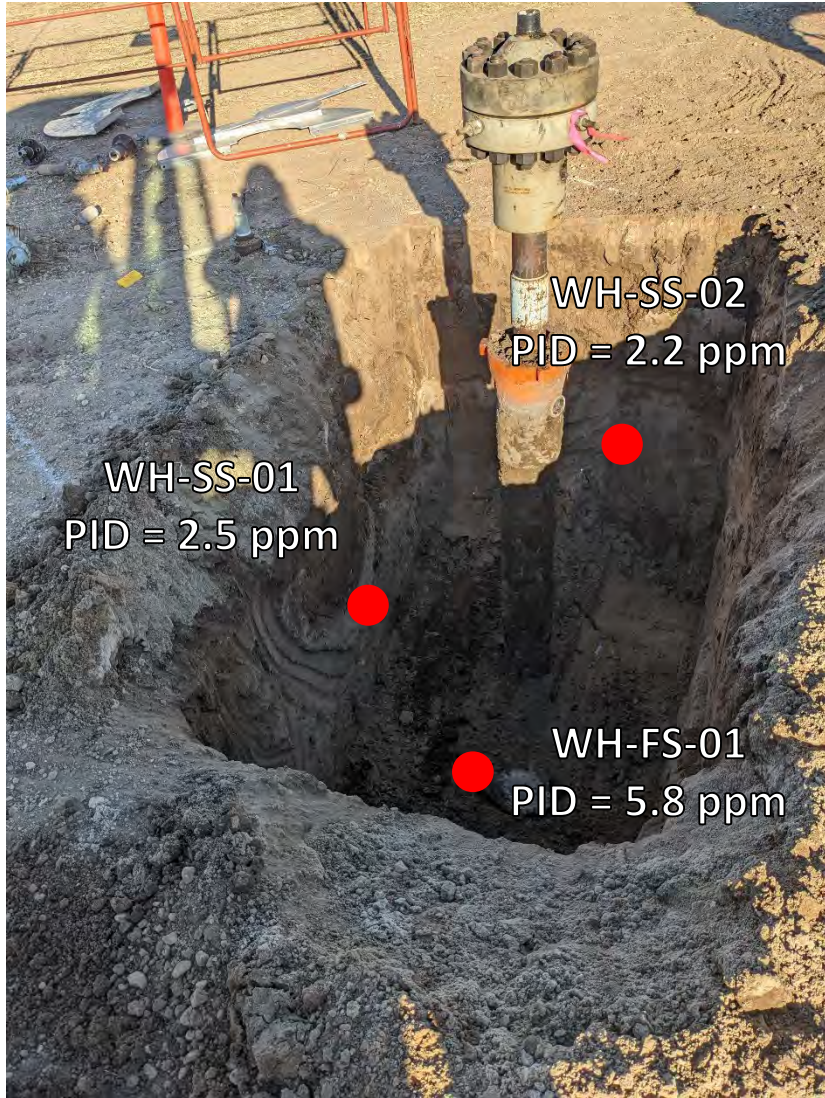
Sater CC #18-17D  
API # 05-123-34613  
Remediation # 31822

Closure Assessment

November 2023 – January 2024

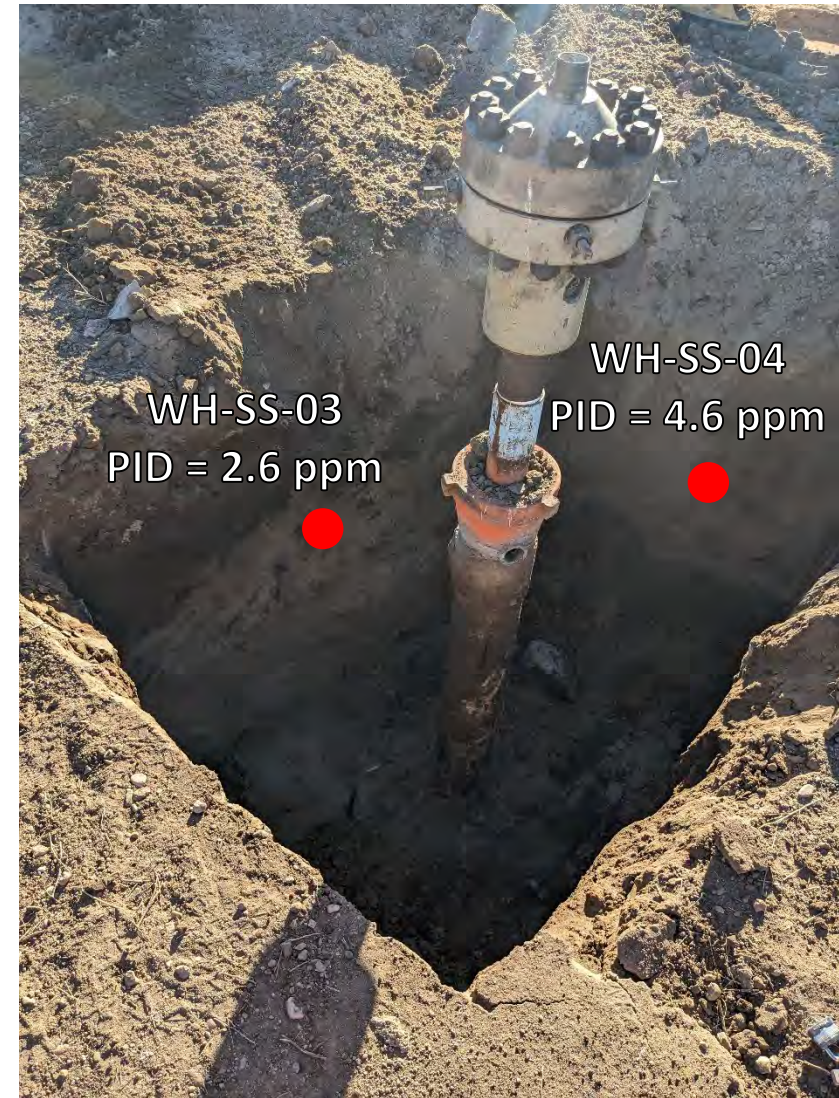


# Wellhead Excavation – 11/14/23



Looking east-northeast

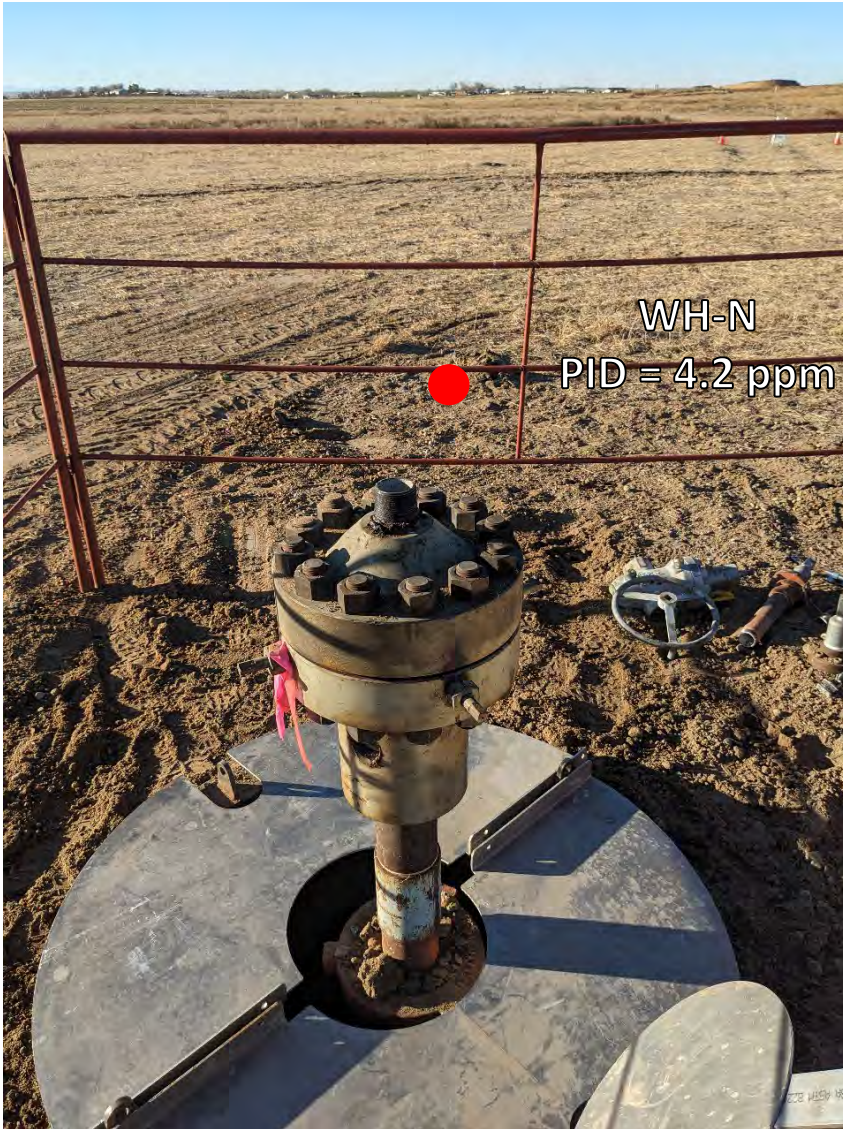
No petroleum hydrocarbon staining or odor observed



Looking southwest

No petroleum hydrocarbon staining or odor observed

## Wellhead Surface – 11/14/23



Looking north

Site in good condition – no petroleum hydrocarbon staining or odor  
Observed on surface around wellhead



Looking east

Site in good condition – no petroleum hydrocarbon staining or odor  
Observed on surface around wellhead

# Wellhead Surface – 11/14/23



WH-S  
PID = 5.6 ppm

Looking south

Site in good condition – no petroleum hydrocarbon staining or odor  
Observed on surface around wellhead

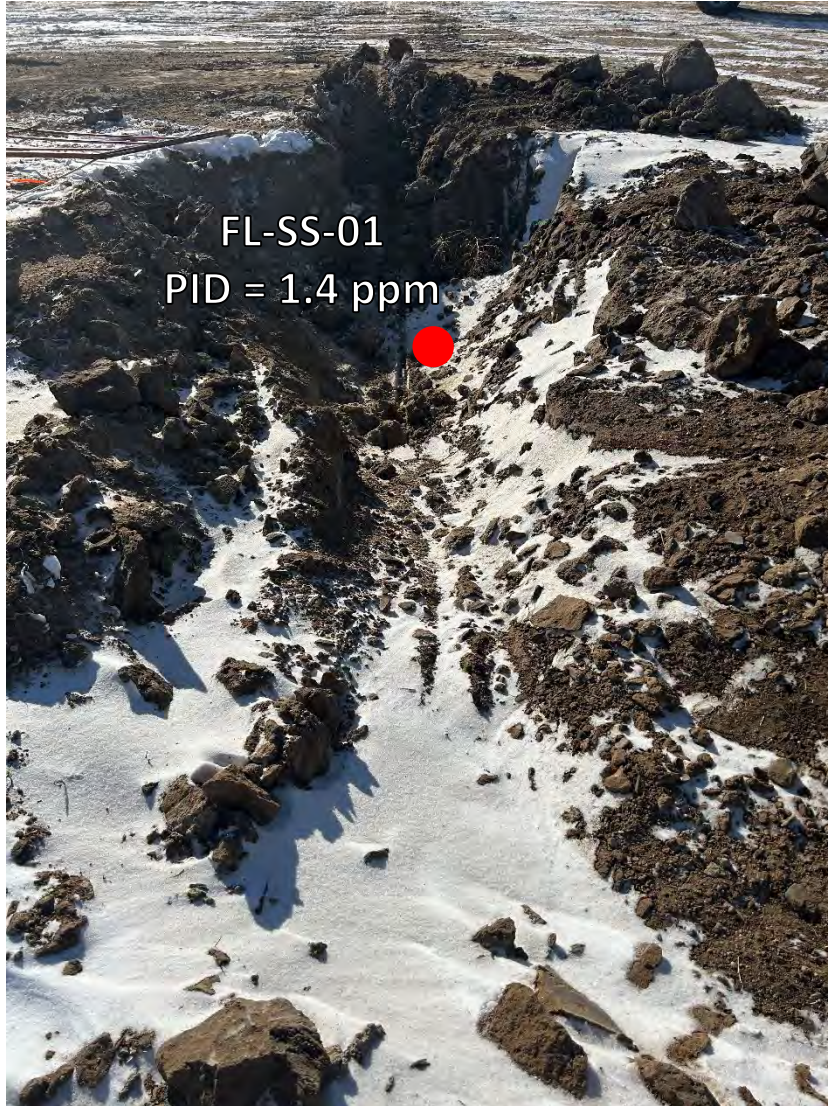


WH-W  
PID = 4.3 ppm

Looking west

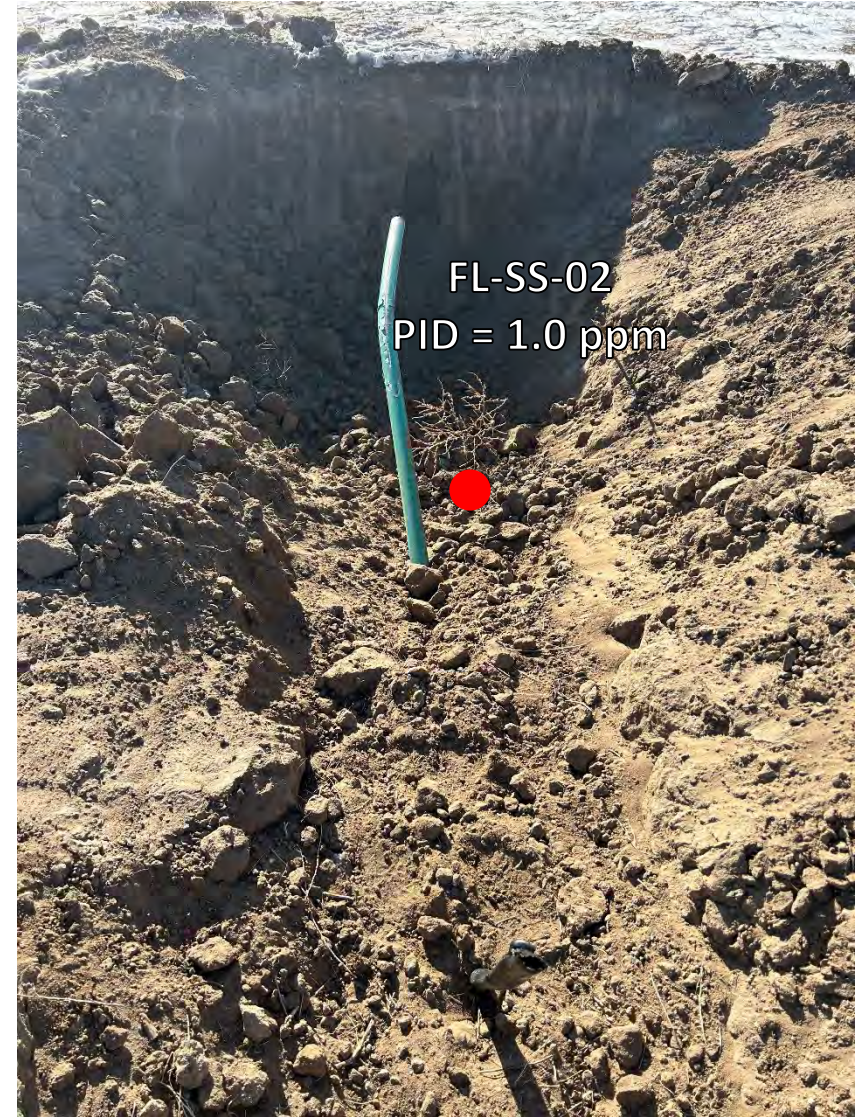
Site in good condition – no petroleum hydrocarbon staining or odor  
Observed on surface around wellhead

# Flowline Removal – 01/18/24



Looking southwest at Pt. A/terminus at wellhead

No petroleum hydrocarbon odor or staining observed



Looking southwest at bellhole/cut point for removal

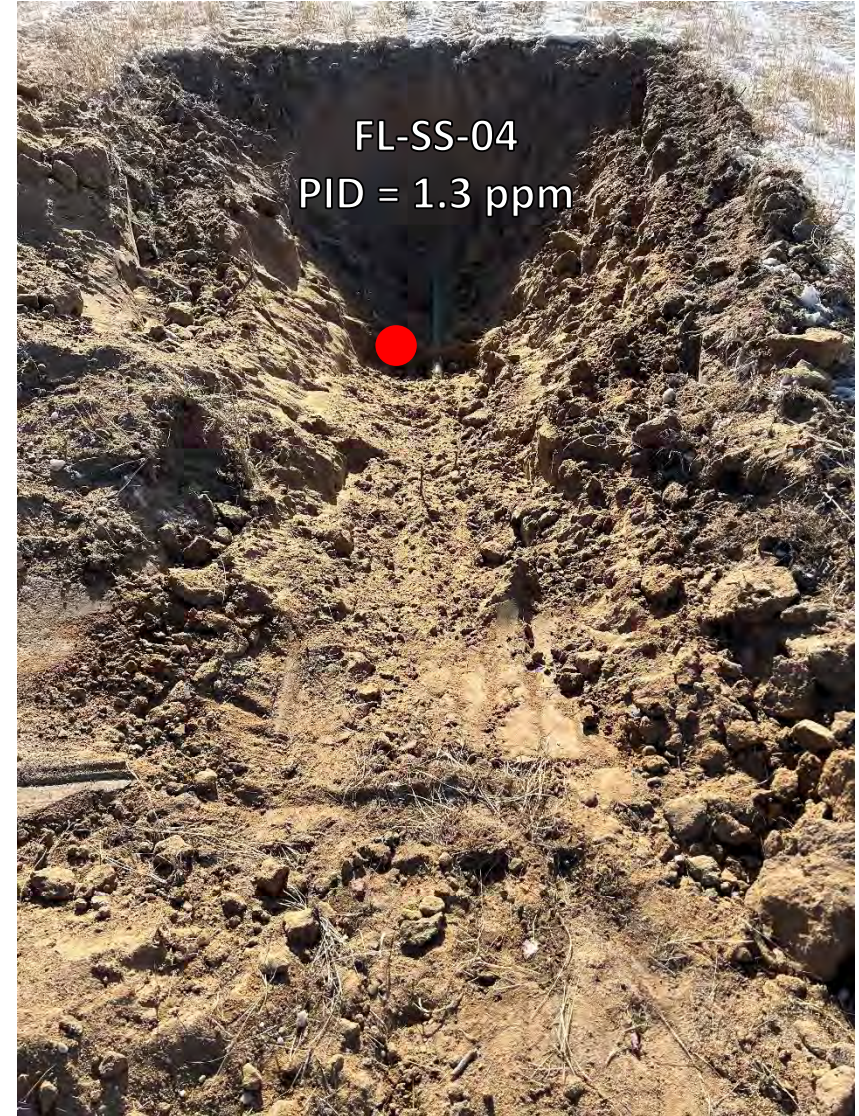
No petroleum hydrocarbon odor or staining observed

## Flowline Removal – 01/18/24



Looking southwest at bellhole/change in direction

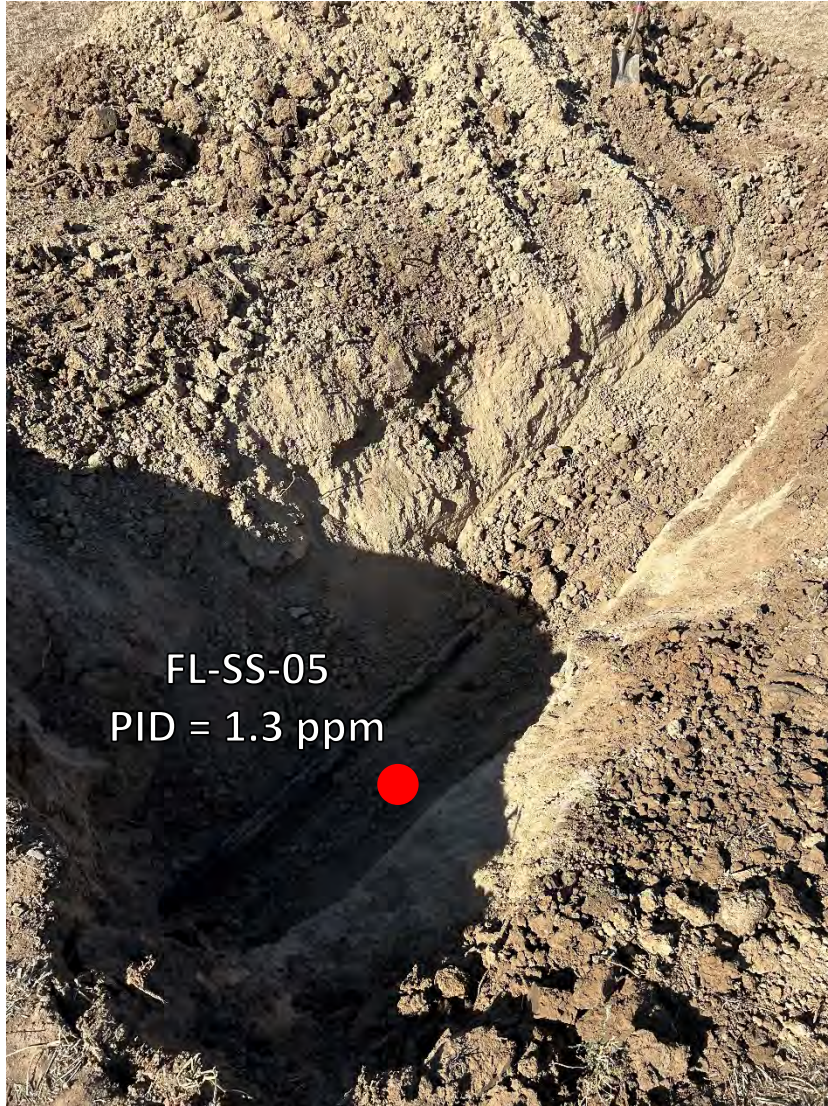
No petroleum hydrocarbon odor or staining observed



Looking southwest at bellhole/cut point for removal

No petroleum hydrocarbon odor or staining observed

## Flowline Removal – 01/18/24-01/19/24



Looking northwest at bellhole/cut point for removal

No petroleum hydrocarbon odor or staining observed



Looking south at bellhole/change of direction

No petroleum hydrocarbon odor or staining observed

# Flowline Removal – 01/19/24-01/22/24



Looking south at bellhole/cut point for removal

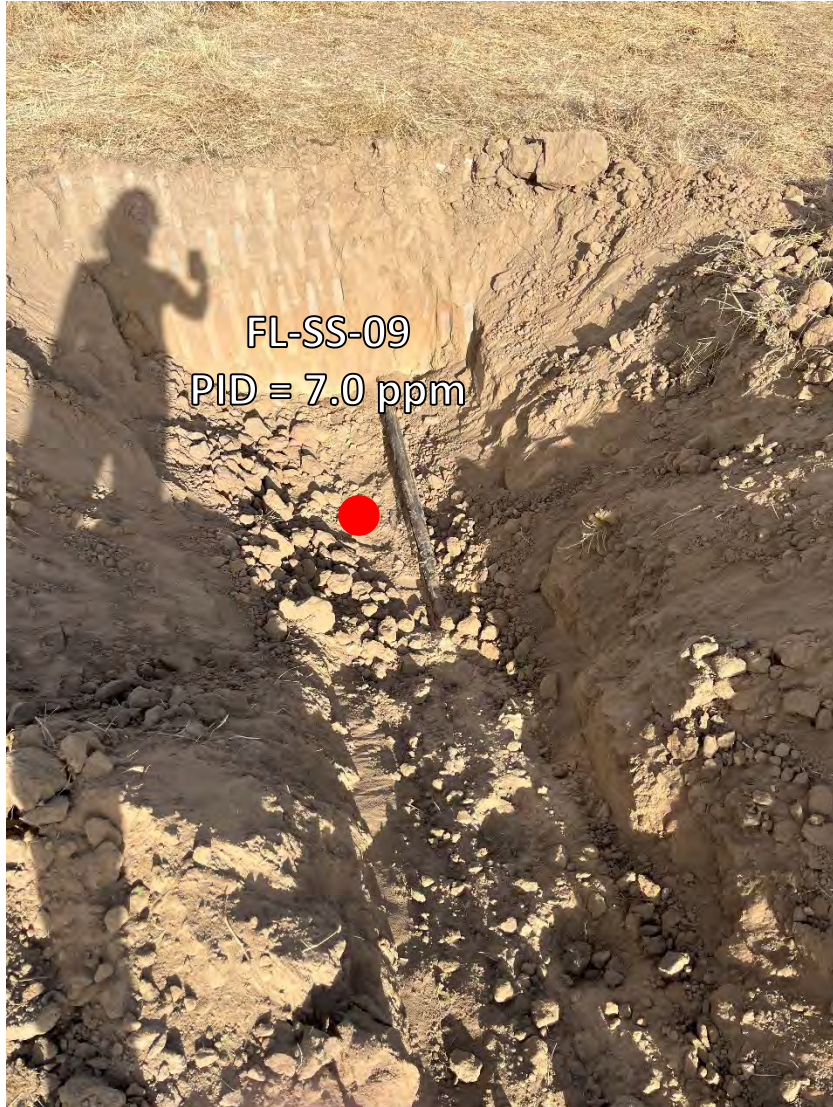
No petroleum hydrocarbon odor or staining observed



Looking southwest at bellhole/change in direction

No petroleum hydrocarbon odor or staining observed

## Flowline Removal – 01/22/24



Looking northeast at bellhole/cut point for removal

No petroleum hydrocarbon odor or staining observed



Looking north at Pt. B/terminus at separator

No petroleum hydrocarbon odor or staining observed