



Facility Closure Investigation and Environmental Summary

Anderson 34R-223 Wellhead

ECMC Remediation Project # 39601

Weld County, Colorado

Attachments:

Figure 1 – General Location Map

Figure 2 – Wellhead Soil Sample and Field Screening Locations

Table 1 – Soil Sample and Field Screening Location Information

Table 2 – Soil Analytical Results Summary Table – Volatile Organics

Table 3 – Soil Analytical Results Summary Table – PAHs

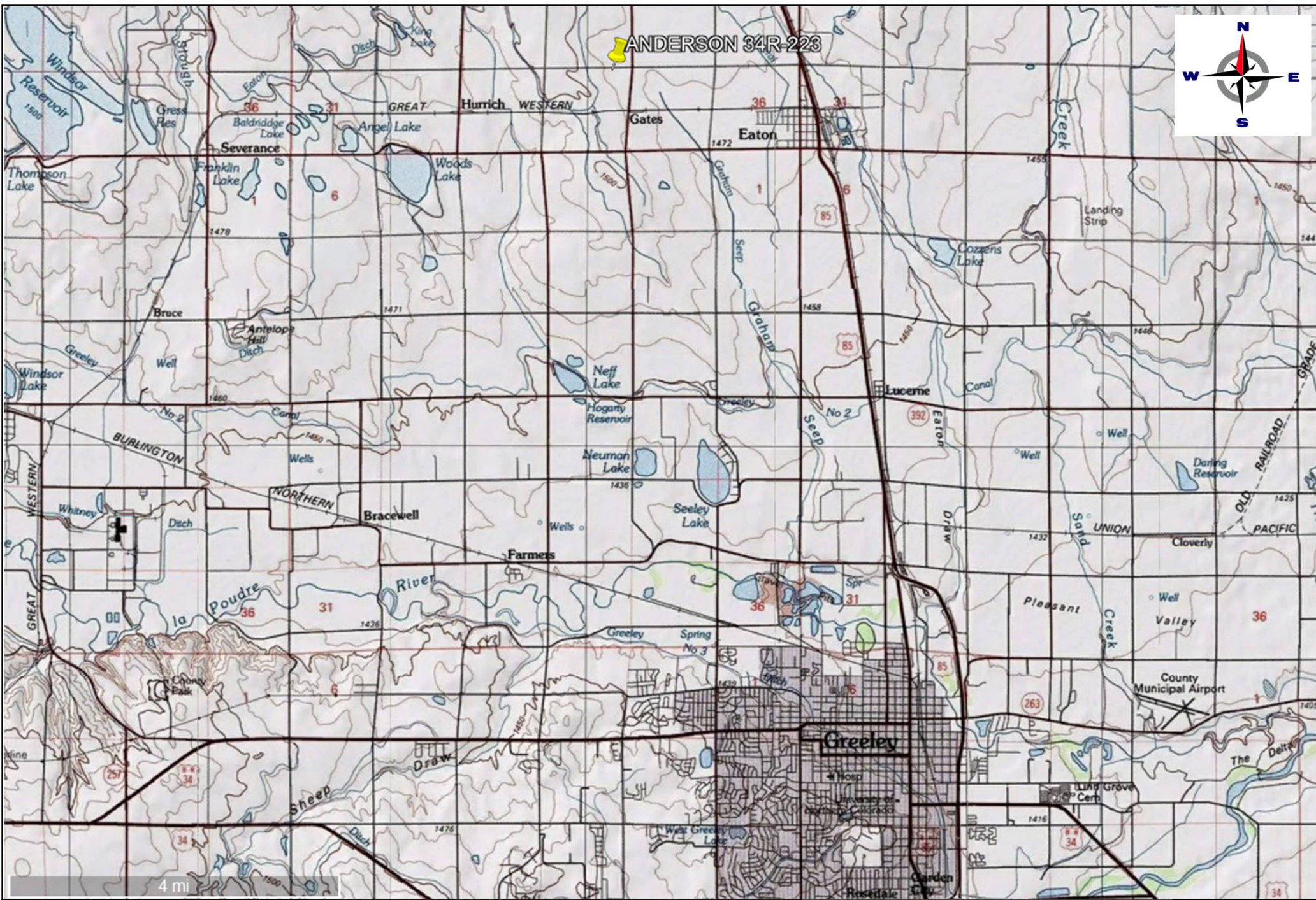
Table 4 – Soil Analytical Results Summary Table – Soil Suitability

Table 5 – Soil Analytical Results Summary Table – Metals

Attachment A: Photographic Log

Attachment B: Facility Closure Checklists

FIGURES



| |
|-----------------|
| Project No: |
| Drawn By: GM |
| Date: 4/24/2025 |

General Location Map
 Anderson 34R-223 Wellhead
 NENE Sec. 34 7N66W 6 PM



 610 Garrison St.
 Unit T
 Lakewood, CO 80215
 303.378.4036

FIGURE

 1

- Field Screening Sample (Approximate)
- Laboratory Sample (Approximate)
- Excavation Extent (Approximate)



| | | | | |
|-----------------|--|---|--|--------|
| Project No: | Historic Release Location Anderson 34R-223 Wellhead NENE Sec. 34 7N66W 6 PM |  | 610 Garrison St. Unit T Lakewood, CO 80215 303.378.4036 | FIGURE |
| Drawn By: LB | | | 2 | |
| Date: 5/13/2025 | | | | |

TABLES

TABLE 1
FIELD DATA SUMMARY TABLE
PDC 69175
ANDERSON 34R-223 WELLHEAD, WELD COUNTY, COLORADO
REM # 39601

| Sample ID | Sample Date | Depth (ft-bgs) | GPS Data Latitude/Longitude | | VOC Concentration (ppm) |
|-----------|-------------|----------------|--------------------------------|-------------|----------------------------|
| WH01@6 | 4/24/2025 | 6 | 40.538049 | -104.758820 | 417.4 |
| FLR01@4 | 4/24/2025 | 4 | 40.538053 | -104.758799 | 5.3 |
| WH01-N@4 | 4/24/2025 | 4 | 40.538063 | -104.758818 | 2.7 |
| WH01-W@4 | 4/24/2025 | 4 | 40.538049 | -104.758841 | 3.3 |
| WH01-S@4 | 4/24/2025 | 4 | 40.538036 | -104.758819 | 26.2 |
| BKG01@4 | 4/24/2025 | 4 | 40.538228 | -104.760869 | 0.1 |
| BKG01@6 | 4/24/2025 | 6 | 40.538228 | -104.760869 | 0.1 |
| BKG02@4 | 4/24/2025 | 4 | 40.537512 | -104.759553 | 0.0 |
| BKG02@6 | 4/24/2025 | 6 | 40.537512 | -104.759553 | 0.0 |
| BKG03@4 | 4/24/2025 | 4 | 40.537408 | -104.758053 | 0.0 |
| BKG03@6 | 4/24/2025 | 6 | 40.537408 | -104.758053 | 0.0 |

1. Global Positioning System (GPS) data is provided in decimal degrees using North American Datum (NAD) 83 UTMZone 13 North.

2. Volatile organic compound (VOC) concentrations are measured in the field using a photoionization detector (PID).

ppm - Parts per million

ft-bgs - feet below ground surface

TABLE 2
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
PDC 69175
ANDERSON 34R-223 WELLHEAD, WELD COUNTY, COLORADO
REM # 39601

| Sample ID | Sample Date | Depth (ft-bgs) | Benzene (mg/kg) | Toluene (mg/kg) | Ethyl-Benzene (mg/kg) | Xylenes (mg/kg) | 1,2,4-Trimethyl-Benzene (mg/kg) | 1,3,5-Trimethyl-Benzene (mg/kg) | Naphthalene (mg/kg) | TPH (mg/kg) | TPH GRO (mg/kg) | TPH DRO (mg/kg) | TPH ORO (mg/kg) |
|---|-------------|----------------|-----------------|-----------------|-----------------------|-----------------|---------------------------------|---------------------------------|---------------------|-------------|-----------------|-----------------|-----------------|
| ECMC Table 915-1 Limits (Residential SSL) | | | 1.2 | 490 | 5.8 | 58 | 30 | 27 | 2 | 500 | 500** | | |
| ECMC Table 915-1 Limits (Protection of Groundwater SSL) | | | 0.0026 | 0.69 | 0.78 | 9.9 | 0.0081 | 0.0087 | 0.0038 | 500 | 500** | | |
| WH01@6 | 4/24/2025 | 6 | <0.00200 | <0.00200 | <0.00200 | <0.00200 | <0.00200 | 0.0180 | <0.002 | 48.51 | 6.21 | 42.3 | <100 |

- Bold** faced values exceed the ECMC Table 915-1 limit(s)
 - Blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL)
 - Grey highlighted soil analytical values indicate result is less than laboratory reporting limit
 - ** Summation of GRO+DRO+ORO must be less than 500 mg/kg
- TPH-GRO = Total petroleum hydrocarbons - gasoline range organics
TPH-DRO = Total petroleum hydrocarbons - diesel range organics
TPH-ORO = Total petroleum hydrocarbons - oil range organics
ft-bgs - feet below ground surface
mg/kg - milligrams per kilogram

TABLE 3
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA
PDC 69175
ANDERSON 34R-223 WELLHEAD, WELD COUNTY, COLORADO
REM # 39601

| Sample ID | Sample Date | Depth (ft-bgs) | Acenaphthene (mg/kg) | Anthracene (mg/kg) | Benzo (a) Anthracene (mg/kg) | Benzo (a) Pyrene (mg/kg) | Benzo (b) Fluoranthene (mg/kg) | Benzo (k) Fluoranthene (mg/kg) | Chrysene (mg/kg) | Dibenzo (a,h) Anthracene (mg/kg) | Fluoranthene (mg/kg) | Fluorene (mg/kg) | Indeno (1,2,3-cd) Pyrene (mg/kg) | Pyrene (mg/kg) | 1-Methyl - Naphthalene (mg/kg) | 2-Methyl- Naphthalene (mg/kg) |
|---|-------------|----------------|-------------------------|-----------------------|------------------------------------|--------------------------------|--------------------------------------|--------------------------------------|---------------------|--|-------------------------|---------------------|---|-------------------|--------------------------------------|-------------------------------------|
| ECMC Table 915-1 Limits (Residential SSL) | | | 360 | 1800 | 1.1 | 0.11 | 1.1 | 11 | 110 | 0.11 | 240 | 240 | 1.1 | 180 | 18 | 24 |
| ECMC Table 915-1 Limits (Protection of Groundwater SSL) | | | 0.55 | 5.8 | 0.011 | 0.24 | 0.3 | 2.9 | 9 | 0.096 | 8.9 | 0.54 | 0.98 | 1.3 | 0.006 | 0.019 |
| WH01@6 | 4/24/2025 | 6 | <0.020 | <0.020 | <0.005 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | 0.056 | <0.020 | <0.020 | 0.134 | 0.102 |

1. **Bold** faced values exceed the ECMC Table 915-1 limit(s)
 2. Blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL)
 3. Grey highlighted soil analytical values indicate result is less than laboratory reporting limit
- ft-bgs - feet below ground surface
mg/kg - milligrams per kilogram

TABLE 4
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION
PDC 69175
ANDERSON 34R-223 WELLHEAD, WELD COUNTY, COLORADO
REM # 39601

| Sample ID | Sample Date | Depth (ft-bgs) | pH (Standard Units) | EC (mmhos/cm) | SAR (Standard Units) | Boron (mg/L) |
|--|-------------|----------------|------------------------|------------------|-------------------------|-----------------|
| ECMC Table 915-1 Soil Suitability Limits | | | 6 - 8.3 | <4 | <6 | 2 |
| WH01@6 | 4/24/2025 | 6 | 8.26 | 0.804 | 1.73 | 0.375 |
| BKG01@4 | 4/24/2025 | 4 | 8.41 | 0.743 | 2.19 | 0.689 |
| BKG01@6 | 4/24/2025 | 6 | 8.09 | 2.38 | 1.47 | 0.325 |
| BKG02@4 | 4/24/2025 | 4 | 8.07 | 2.99 | 1.58 | 0.181 |
| BKG02@6 | 4/24/2025 | 6 | 8.08 | 3.22 | 1.08 | 0.259 |
| BKG03@4 | 4/24/2025 | 4 | 8.14 | 5.76 | 2.78 | 5.36 |
| BKG03@6 | 4/24/2025 | 6 | 8.15 | 3.64 | 1.21 | 2.12 |
| Maximum Background Concentration | | | 8.41 | 5.76 | 2.78 | 5.36 |

1. **Bold** faced values exceed the ECMC Table 915-1 limit(s), but are within background concentrations.

2. Brown highlighted soil analytical values indicate a regulatory exceedance.

ft-bgs - feet below ground surface

EC - Electrical Conductivity

SAR - Sodium adsorption ratio

mmhos/cm - millimhos per centimeter

mg/L - milligrams per liter

TABLE 5
SUMMARY OF METALS IN SOIL CHEMISTRY DATA
PDC 69175
ANDERSON 34R-223 WELLHEAD, WELD COUNTY, COLORADO
REM # 39601

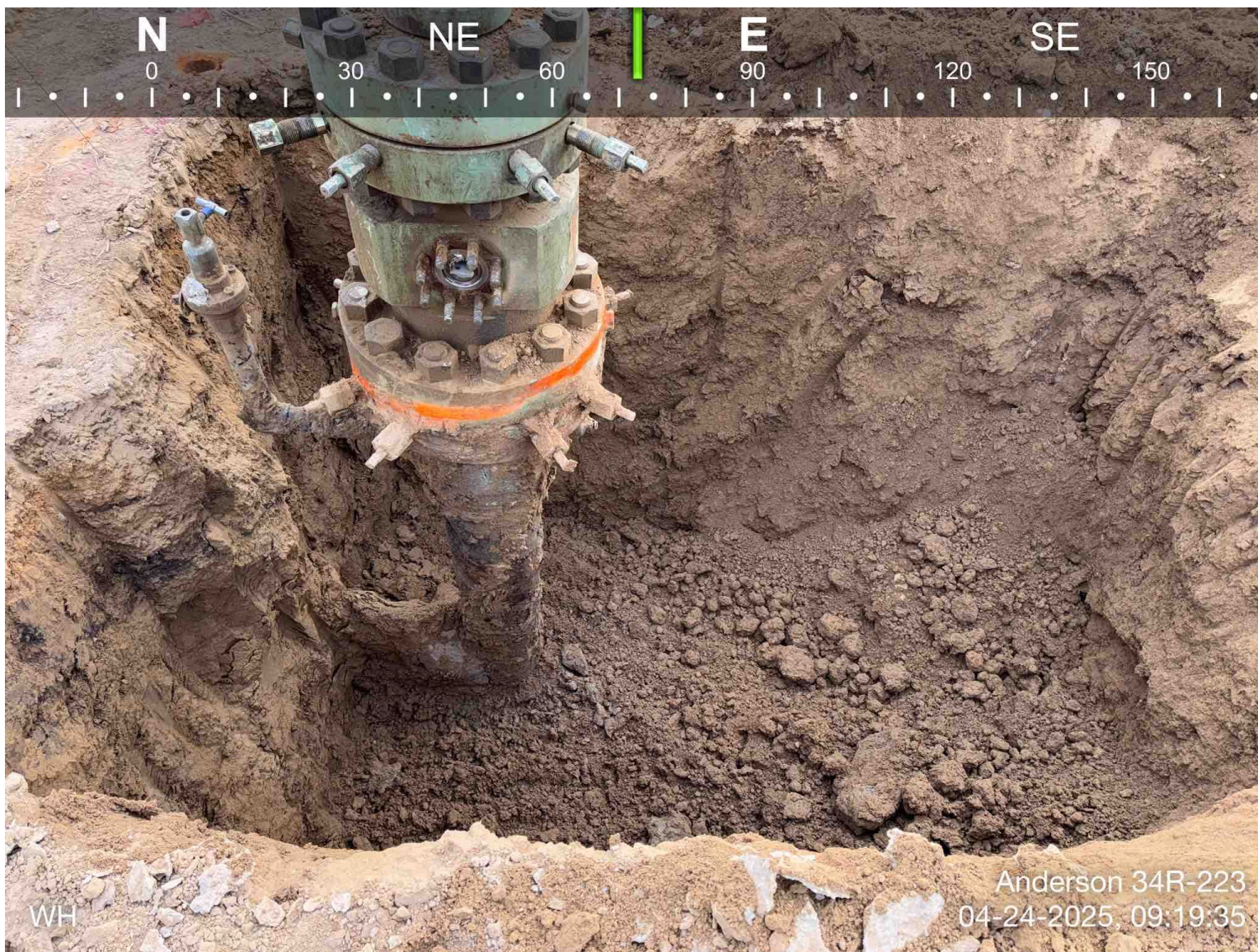
| Sample ID | Sample Date | Depth (ft-bgs) | Arsenic (mg/kg) | Barium (mg/kg) | Cadmium (mg/kg) | Chromium (VI) (mg/kg) | Copper (mg/kg) | Lead (mg/kg) | Nickel (mg/kg) | Selenium (mg/kg) | Silver (mg/kg) | Zinc (mg/kg) |
|---|-------------|----------------|-----------------|----------------|-----------------|-----------------------|----------------|--------------|----------------|------------------|----------------|--------------|
| ECMC Table 915-1 Limits (Residential SSL) | | | 0.68 | 15000 | 71 | 0.3 | 3100 | 400 | 1500 | 390 | 390 | 23000 |
| ECMC Table 915-1 Limits (Protection of Groundwater SSL) | | | 0.29 | 82 | 0.38 | 0.00067 | 46 | 14 | 26 | 0.26 | 0.8 | 370 |
| WH01@6 | 4/24/2025 | 6 | 5.60 | 274 | 0.195 | <0.463* | 26.0 | 9.42 | 12.2 | 0.337 | <0.0856 | 46.5 |
| BKG01@4 | 4/24/2025 | 4 | 6.74 | 141 | 0.210 | <0.377* | 11.1 | 9.19 | 12.6 | 0.322 | <0.0861 | 44.5 |
| BKG01@6 | 4/24/2025 | 6 | 5.55 | 106 | 0.158 | <0.418* | <9.15 | 7.93 | 10.5 | 0.274 | <0.0915 | 38.6 |
| BKG02@4 | 4/24/2025 | 4 | 5.44 | 130 | 0.232 | <0.440* | 9.31 | 8.41 | 11.3 | <0.226 | <0.0869 | 41.3 |
| BKG02@6 | 4/24/2025 | 6 | 5.48 | 104 | 0.171 | <0.359* | <9.99 | 8.03 | 10.9 | <0.260 | <0.0999 | 42.3 |
| BKG03@4 | 4/24/2025 | 4 | 7.17 | 149 | 0.261 | <0.424* | 14.5 | 10.8 | 14.5 | 0.278 | <0.0984 | 54.8 |
| BKG03@6 | 4/24/2025 | 6 | 8.56 | 122 | 0.247 | <0.455* | 14.5 | 11.2 | 15.6 | 0.240 | <0.0916 | 52.0 |
| Maximum Background Concentration | | | 8.56 | 149 | 0.261 | - | 14.5 | 11.2 | 15.6 | 0.322 | - | 54.8 |
| Maximum Background Concentration X 1.25 | | | 10.7 | 186 | 0.326 | - | 18.1 | 14.0 | 19.5 | 0.403 | - | 68.5 |

1. **Bold** faced values exceed the ECMC Table 915-1 limit(s), but are within 1.25x background concentrations.
 2. **Red** faced values exceed the ECMC Table 915-1 limit(s)
 3. Red & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL)
 4. Grey highlighted soil analytical values indicate result is less than laboratory reporting limit
- * Indicates laboratory reporting or minimum detection limit in excess of SSL

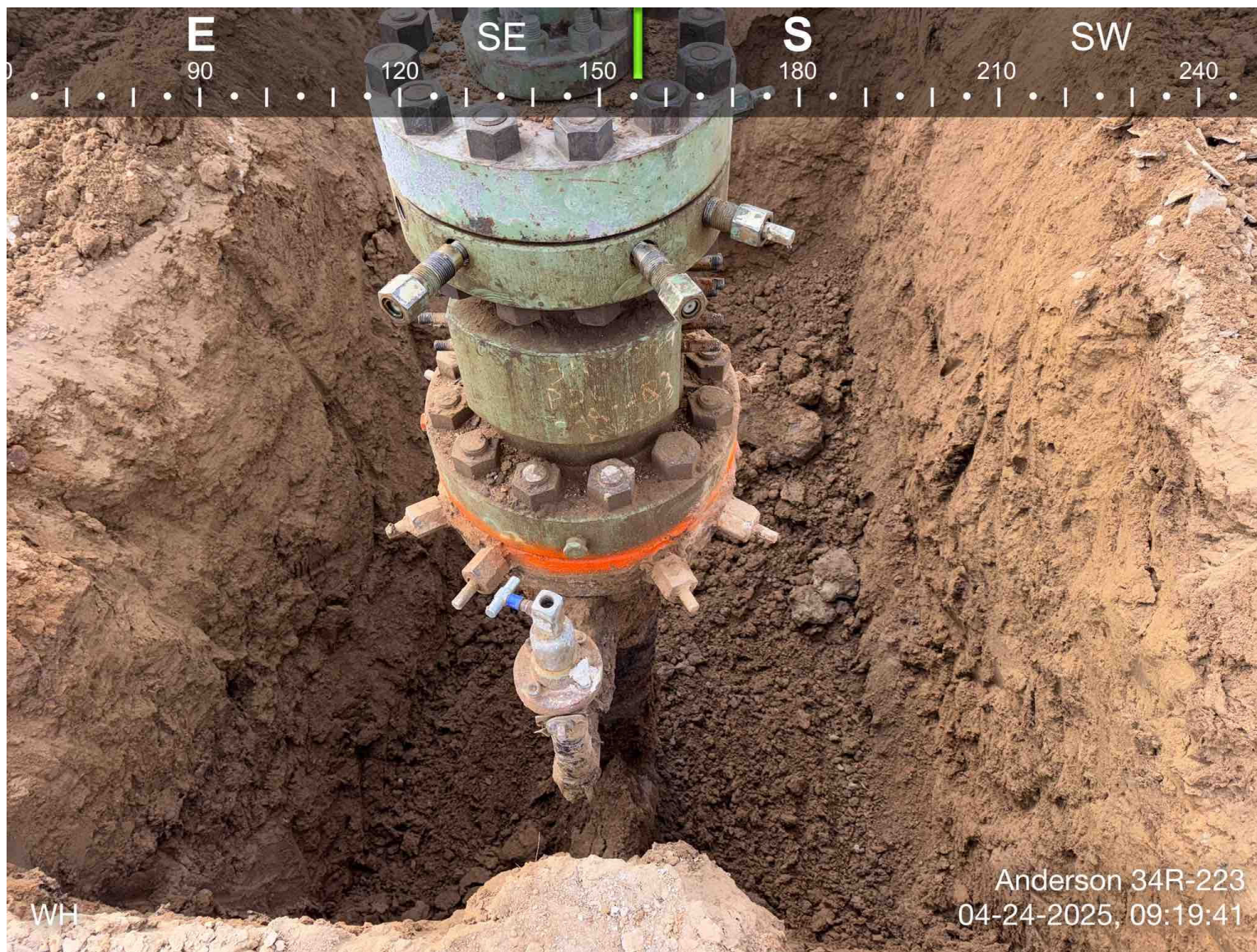
ft-bgs - feet below ground surface
mg/kg - milligrams per kilogram

**ATTACHMENT A
PHOTOGRAPHIC LOG**

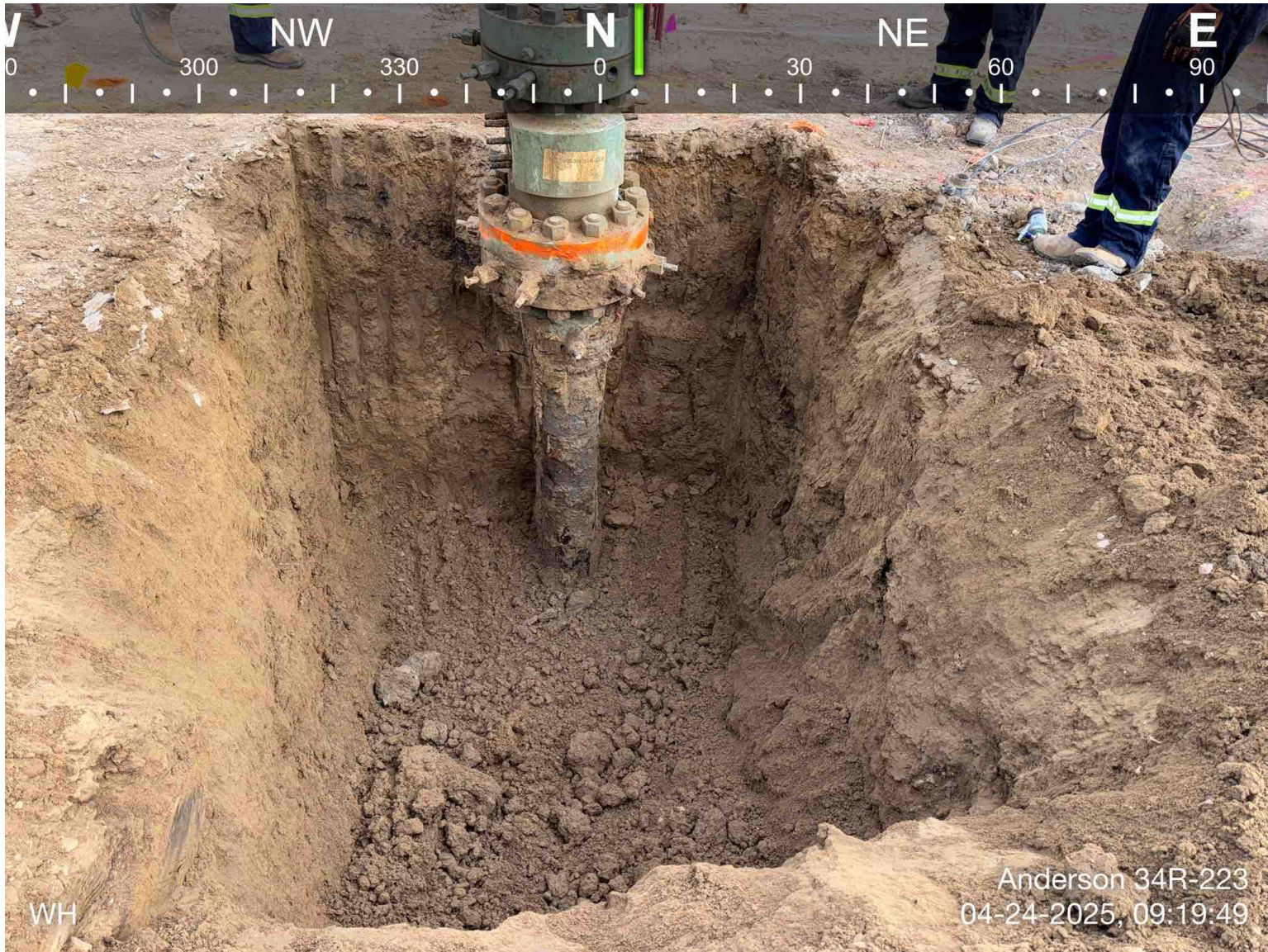
Anderson 34R-223 Historical Release Photographic Log



Anderson 34R-223 Historical Release Photographic Log



Anderson 34R-223 Historical Release Photographic Log



**ATTACHMENT B
FACILITY CLOSURE CHECKLISTS**

Chevron Rockies Business Unit

Field Qualitative Criteria for ECMC Reporting Associated with the Discovery of Potentially Impacted Material

If answered **Yes** to any of the questions listed below, this may suggest the presence of potentially impacted materials as outlined in ECMC Rule 912. Out of an abundance of caution, a "Yes" response will be reported to the ECMC within 24 hours after discovery, regardless of laboratory results. **Immediately notify the RBU Remediation Team.** Include a copy of this Field Qualitative Spill Criteria Checklist in the field Report.

Please answer the following questions when on-site:

1. Is there visible petroleum hydrocarbon staining in the soil?
 (Yes) / (No)
2. Does the soil sample from the stained area have a petroleum odor?
 (Yes) / (No)
3. Is there a petroleum hydrocarbon sheen on the nearby surface water?
 (Yes) / (No)
4. Does there appear to be a sheen of the surface of accumulated groundwater or seeps within the excavation indicative of petroleum?
 (Yes) / (No)
5. Is stained soil in contact with groundwater?
 (Yes) / (No)

Please Include relevant photos of the site conditions for items 1-5.

See attached photolog

ANDERSON 34R-223 WELLHEAD

Location name

Please Circle Facility Type: Well / Flowline / Production Facility / Other

Wellhead Closure Checklist

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

| Additional attachments (optional): | | Pit Closure | | Tank Battery Closure | | Flowline Closure | | Partially Buried Vault Closure | |
|---|----------------------|--------------------------------------|--|--|---|---------------------------------|---|--------------------------------|--|
| Site Name & COGCC Facility Number: Anderson 34R-223, 432815 | | Date: 4/24/2025 | | | | Remediation Project #: 39601 | | | |
| Associated Wells: NA | | Age of Site: 1/7/2014 - spud date | | | | Number of Photos Attached: 3 | | | |
| Location: (GPS coordinates of wellhead or southeastern most wellhead for multiple) 40.538050 / -104.758820 | | | | | | | Estimated Facility Size (acres): ~0.01 | | |
| General Condition of Site: (General observations regarding housekeeping, corrosion, waste management, etc.) Odor observed in some soil samples | | | | | | | | | |
| USCS Soil Type: SC | | | | | Estimated Depth to Groundwater: Unknown/Not Encountered | | | | |
| Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth) Yes, size and impact of spill currently unknown, further excavation needed | | | | | | | | | |
| Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth) None encountered or observed | | | | | | | | | |
| Wellhead(s) | | | | | | | | | |
| Well API | 05-123-37296 | | | | | | | | |
| Age | 1/7/2014 - spud date | | | | | | | | |
| Condition of surface around wellhead | Some odor | | | | | | | | |
| PID Readings | 2.7 - 417.4 ppm | | | | | | | | |
| Condition of subsurface (staining present) | Some odor | | | | | | | | |
| PID Readings | 2.7 - 417.4 ppm | | | | | | | | |
| Sample taken? Location/Sample ID# | WH01@6 | | | | | | | | |
| Photo Number(s) | 1-3 | | | | | | | | |
| Other observations regarding wellheads: NA | | | | | | | | | |
| Summary | | | | | | | | | |
| Was impacted soil identified? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes - less than 10 cubic yards <input type="checkbox"/> Yes - more than 10 cubic yards | | | | | | | | | |
| Total number of samples field screened: 5 | | | | Total number of samples collected: 5 | | | | | |
| Highest PID Reading: 417.4 ppm | | | | 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: | | | | Volume of soil removed: | | | | | |
| Is additional investigation required? Yes | | | | | | | | | |
| Was groundwater encountered during the investigation? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - not impacted or in contact with impacted soils <input type="checkbox"/> Yes - groundwater impacted and/or in contact with impacted soils | | | | | | | | | |
| Measured depth to groundwater: | | | | Was remedial groundwater removal conducted? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | |
| Date Groundwater was encountered: | | | | Commencement date of removal: | | | | | |
| Sheen on groundwater? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | Volume of groundwater removed prior to sampling: | | | | | |
| Free product observed? <input type="checkbox"/> Yes <input type="checkbox"/> 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: | | | | | | | | | |