

## **Operator Comments**

### *Tank Battery Footprint*

On April 21, 2022, soil sampling was completed to assess impacts related to the recent release area in the footprint of the former tank battery. Analytical results indicated that pH was elevated above the Colorado Oil and Gas Conservation Commission (COGCC) Table 915-1 allowable level and background in samples SS1-2, SS2-2, SS3-1, SS4-1, and SS7-1.

To dilute and mitigate the pH impact, approximately 80 cubic yards of soil was removed from the areas with elevated levels and was mixed onsite. On August 3, 2022, confirmation sampling was conducted to assess pH levels following excavation. Soil samples SS1@3', SS2@3', SS3@3', and SS4@3' were collected from 3 feet below ground surface (bgs) for laboratory analysis of pH. A 10-point composite soil sample (Comp01) was collected from the excavated and mixed soil for analysis of electrical conductivity (EC), sodium adsorption ratio (SAR), pH, and boron. Analytical results indicated that pH in soil samples SS2@3' and SS7@3' remained slightly elevated above the COGCC Table 915-1 allowable level and background at 8.42 and 9.14, respectively.

On September 27, 2022, after additional scraping in the vicinity of sample locations SS2@3' and SS7@3', confirmation samples SS2@4' and SS7@4' were collected at 4 feet bgs for laboratory analysis of pH. The material removed was segregated for offsite disposal. Analytical results indicated samples SS2@4' and SS7@4' remained slightly elevated above the COGCC Table 915-1 allowable level and background at 8.65 and 8.99, respectively.

On November 1, 2022, after additional scraping in the vicinity of sample locations SS2@4' and SS7@4', confirmation samples SS2@8' and SS7@8' were collected at 8 feet bgs for laboratory analysis of pH. The material removed was segregated for offsite disposal. A hand auger was advanced at the SS7 location and samples were collected at 12 feet bgs and 15 feet bgs for laboratory analysis of pH. Additional background samples BG05@2', BG05@5', and BG05@10' were collected away from identified impacts for laboratory analysis of pH. Analytical results for confirmation samples SS2@8' and SS7@8' indicated pH values of 8.12 and 9.11, respectively, and analytical results of hand auger samples SS7@12' and SS7@15' indicated pH values of 8.97 and 8.86, respectively. Analytical results for background samples BG05@5' and BG05@10' indicated pH values of 8.36 and 8.43, respectively. The background results of BG05@10' indicate all confirmation sample results for pH at the tank battery footprint are compliant with COGCC Table 915-1 or within the analytical variability of background.

Based on these results, Western Operating respectfully requests that the COGCC allow the tank battery to be rebuilt.

The sample locations are depicted on Figure 1. The confirmation sample results and background sample results are summarized on Table 1 and Table 4, respectively. The laboratory analytical reports and photographic log are attached.

### *Recent Release and Historical Impacts Confirmation Sampling*

On August 3, 2022, and November 1, 2022, confirmation soil samples were collected from the scraped areas related to the recent release adjacent the tank battery and the historical impacts west of the tank battery. Soil samples SS10@1' through SS17@1' were collected from the area related to the recent

release for laboratory analysis of benzene, toluene, ethylbenzene, total xylenes, total petroleum hydrocarbons (TPH) as gasoline range organics, TPH as diesel range organics, TPH as oil range organics, EC, SAR, pH, and boron. Soil samples SS18@1' through SS30@1' were collected throughout the historical impact scrape area for laboratory analysis of the analytes listed in Table 915-1. Sample SS31@7' was collected at 7 feet bgs to assess if the observed surficial impacts were migrating vertically.

All laboratory analytical results for arsenic were above the COGCC Table 915-1 Protection of Groundwater Soil Screening Levels (PGWSSL) with a maximum of 2.53 mg/kg in sample SS30@1'; however, these concentrations are within the expected background range (discussed in detail in Form 27 Document Number 403046005). Barium in sample SS29@1' was reported above the COGCC Table 915-1 PGWSSL of 82 mg/kg at 89.7 mg/kg and pH in samples SS17@1' and SS24@1' were both reported above the COGCC Table 915-1 standard of 8.3 at 8.33; however, these results are very near the Table 915-1 standards and are interpreted as being within the expected analytical variability. The samples with laboratory analytical results above the applicable Table 915-1 PGWSSLs and background levels are summarized below.

- SS10@1' (SAR = 16.2)
- SS12@1' (TPH = 506 mg/kg, EC = 4.08 mmhos/cm)
- SS13@1' (TPH = 2,318 mg/kg, SAR = 6.38)
- SS14@1' (EC = 4.28 mmhos/cm, SAR = 7.42)
- SS15@1' (pH = 8.48)
- SS16@1' (641 mg/kg, pH = 8.35)
- SS20@1' (SAR = 6.63)
- SS21@1' (TPH = 1,078 mg/kg)
- SS22@1' (SAR = 8.90)
- SS23@1' (SAR = 9.08)
- SS28@1' (TPH = 562 mg/kg, benzo(a)anthracene = 0.0603 mg/kg, 1-methylnaphthalene = 0.00636 mg/kg, and naphthalene = 0.00917 mg/kg)
- SS29@1' (TPH = 3,330 mg/kg)

All remaining analytical results were compliant with the COGCC Table 915-1 PGWSSLs. The sample locations are depicted on Figure 1. The recent release confirmation sample results and historical release confirmation sample results are summarized on Table 2 and Table 3, respectively. The laboratory analytical reports and a photographic log are attached.

Source removal activities are ongoing to remove the identified impacts listed above and additional confirmation sampling will follow.