

06/11/18

Subject: Remediation Update/Plan

B12 6104 Young Cattle – Tank Release/Pit Investigation and Remediation System (Rem: 9341)
COGCC Location ID: 322420
NWNE, Sec. 12, T6S, R104W, 6th PM
Garfield County, Colorado

Attn: Stan Spencer

Background

- 2015: During routine inspections, a tank on location lost ~200bbl into an unlined secondary containment. The free fluid was removed; however, the absence of a liner allowed vertical mobilization. During due diligence, it was discovered that the pit on location had never been closed. The pit was investigated also when the drill rig was scheduled to delineate the area.
- 07/14 – 18, 2015: Thirteen (13) soil borings were advanced ranging from 42' to 75' below ground surface. Five (5) borings were converted into soil vapor extraction (SVE) wells, four (4) being with the pit boundary. TPH ranging from 2,900 – 7,800 mg/kg and Benzene 0.34 – 1.4 mg/kg on the highest impacts.
- 3rd Quarter 2016: SVE pilot trailer testing.
- 4th Quarter 2016: Active SVE trailer installed. (Removed Q1 2017 after acquisition)
- July 2017: New active SVE trailer installed from Utah Gas Corp.

Approach

Spring 2018 a truck mounted auger rig was contracted to drill at the B12 to collect soil samples and to install a new soil vapor extraction well. Soil samples were collected near previously drilled locations that were identified in 2015. Please see Lab reports and site diagrams that correspond with this project.

Conclusions/Recommendations

Sample results have presented positive degradation in hydrocarbons in some of the impacted wells. The active SVE trailer has had several months of run time and was primarily installed on PITN02/SVEN02 and PITS01/SVES01. 2018 lab results have indicated that PITN02/SVEN02 and PITS01/SVES01 have both shown a large increase in hydrocarbon readings. Due to the higher results, it is believed that the plume from the old spills has been migrated to the vacuumed wells and now the area needs a larger vacuum to recover the hydrocarbons.

This location has been selected to receive a much bigger blower/vacuum for remediation and once the final system is selected, it will be put into service, monitored, and corresponding reports will be submitted to the COGCC to track progress.

If you have any questions pertaining to this project, please do not hesitate to contact me at (970) 901-9007 or mattkasten@dirco.info.

Regards,
Matt Kasten
Dirco
EHS Manager