## Venegas, Victoria, EMNRD

**From:** Spore, Christopher <caspore@eprod.com>
**Sent:** Tuesday, March 24, 2020 2:06 PM
**To:** Venegas, Victoria, EMNRD; Bratcher, Mike, EMNRD
**Cc:** Liz Scaggs; bjennings@ensolum.com; Spore, Christopher
**Subject:** [EXT] RE: NRM1928237767 THISTLE 44 STATION @ FRM1928236955

Ms. Venegas/ Mr. Bratcher,

If I may, I would like to help clarify some of the apparent confusion regarding the sampling protocols & report.

The source of the release was a 4" gathering line that connects to a tank battery approximately 600 feet north of the Enterprise facility. These gathering lines are typically shallower than transmission lines, and in this case, rock saws and or chisels were not employed for depth.

The 'bottom' of the remedial excavation in the area is a confining layer of well indurated limestone, overlain by a moderately thin soil horizon. The entirety of the fenced area was topped with caliche and crushed limestone during facility construction. The confining limestone layer at approximately two feet b.g.s. prevented any vertical migration of the released crude oil, hence the exaggerated surface expression of the flow path. Throughout the project, contaminated soils were removed both mechanically and with a hydrovac. Both methods were advanced to refusal, as neither method could penetrate the confining layer of the aforementioned limestone.

The samples for the initial excavation (CS-9 through CS-14 represented in Figure 4,) were collected at the interface of the side wall and floor of the excavation. This was the best option for a ***bottom hole*** sample, as the true floor of the excavation was rock. When results for these samples indicated that the COC levels were above regulatory limits, the size of the excavation was expanded in all directions down to the impermeable rock layer; limits of the expanded excavation illustrated in Figure 5. Confirmation samples were collected from the expanded excavation area (Re CS-10, Re CS-14, CS-15 through CS-18.)

In retrospect, CS-15 through CS-18 should have been named Re CS-9, Re CS-11, Re CS-12 & Re CS-13. New sample designations were applied since the size of the excavation quadrupled, and the new locations were pushed back ten feet or so.

Not having a group of "Re's" on the analytical table for samples that had exceedances, does allow for some confusion without intimate knowledge of the project. I can assure you that Enterprise Crude Pipeline would not attempt to request closure without having the contamination removed. First and foremost, it is the law. Second, in-situ crude oil contamination can lead to premature corrosion of the buried assets.

I hope this helps with the previous explanations, and please let me know if you have any further questions.

Chris

**Christopher A Spore,** P.G.
Lead Field Environmental
Enterprise Products
Mobile 432.214.3264
Office 432.221.7746

**From:** Venegas, Victoria, EMNRD <Victoria.Venegas@state.nm.us>
**Sent:** Thursday, March 19, 2020 9:15 PM
**To:** Beaux Jennings <bjennings@ensolum.com>; Fields, Jon <JEFIELDS@eprod.com>; Spore, Christopher <caspore@eprod.com>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
**Cc:** Mann, Ryan <rmann@slo.state.nm.us>; Liz Scaggs <lscaggs@ensolum.com>
**Subject:** RE: NRM1928237767 THISTLE 44 STATION @ FRM1928236955

**RE: NRM1928237767 THISTLE 44 STATION @ FRM1928236955**

Hi Mr. Jennings,
Thank you for the clarification on the remediation process on this site. As far as I understand, CS samples were taken from the bottom of the excavation @2feet after the impacted soil was removed with a hydrovac, but still, some samples are over the limit. For example, the TPH concentration at sample point CS-11 is 42200 mg/kg (see table below). The allowed concentration values for this site, with DWG 20 feet, are TPH 100 mg/kg, BTEX 50 mg/kg, and Benzene 10 mg/kg. Additional remediation efforts are required for this site. All samples must be under the closure criteria to approve this closure.

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CS-10 | 10/7/2019 | 2 | **17.7Benzene** | **108** | **39.7** | **139** | **304BTEX** | **4,950** | **12,500** | **1,250** | **18,700TPH** | NS |
| Re-CS-10 | 10/15/2019 | 2 | <0.000384 | <0.000455 | <0.000564 | **0.00184 J** | **0.00184 J** | <15.0 | <15.0 | <15.0 | <15.0 | **6.31** |
| CS-11 | 10/7/2019 | 2 | **67.5** | **310** | **90.5** | **287** | **755** | **13,600** | **26,200** | **2,380** | **42,200** | NS |
| CS-12 | 10/7/2019 | 2 | **6.73** | **46.4** | **22.6** | **73.0** | **149** | **3,500** | **13,400** | **1,310** | **18,200** | NS |
| CS-13 | 10/7/2019 | 2 | <0.00201 | <0.00201 | <0.00201 | <0.00201 | <0.00201 | <49.9 | **388** | **157** | **545** | NS |
| CS-14 | 10/7/2019 | 2 | **15.1** | **139** | **59.1** | **187** | **400** | **6,830** | **13,300** | **1,230** | **21,400** | **28.6** |

Thank you,

Victoria Venegas
State of New Mexico
Energy, Minerals, and Natural Resources
Oil Conservation Division
811 S. First St., Artesia NM 88210
(575) 748-1283
Victoria.Venegas@state.nm.us



you,

**From:** Beaux Jennings <bjennings@ensolum.com>
**Sent:** Thursday, March 19, 2020 9:35 AM
**To:** Venegas, Victoria, EMNRD <Victoria.Venegas@state.nm.us>; Fields, Jon <JEFIELDS@eprod.com>; Spore, Christopher <caspore@eprod.com>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>

**Cc:** Mann, Ryan <rmann@slo.state.nm.us>; Liz Scaggs <lscaggs@ensolum.com>
**Subject:** [EXT] RE: NRM1928237767 THISTLE 44 STATION @ FRM1928236955

Ms. Venegas,

Please see the response to your comments below in red. If you have any questions, please let us know.

Thank you,

-Beaux

---

**From:** Venegas, Victoria, EMNRD <Victoria.Venegas@state.nm.us>
**Sent:** Thursday, March 12, 2020 12:54 PM
**To:** Fields, Jon <JEFIELDS@eprod.com>; Spore, Christopher <caspore@eprod.com>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
**Cc:** Mann, Ryan <rmann@slo.state.nm.us>; Beaux Jennings <bjennings@ensolum.com>; Liz Scaggs <lscaggs@ensolum.com>
**Subject:** NRM1928237767 THISTLE 44 STATION @ FRM1928236955

**NRM1928237767 THISTLE 44 STATION @ FRM1928236955**

Mr. Fields,
The OCD has denied the submitted Closure Report C-141 for incident # **NRM1928237767** THISTLE 44 STATION @ FRM1928236955 for the following reasons:

- Sample CS-11 is over limit for TPH, BTEX and Benzene.
  During initial excavation activities, five (5) confirmation soil samples (CS-9 through CS-14) were taken near the release point from the bottom of the excavation area inside the pipeline trench at approximately two (2) feet below ground surface (bgs). Due to the exceedances observed at the five (5) confirmation soil samples (CS-9 through CS-14), these impacted areas were removed with a hydrovac to expose the limestone layer at two (2) feet bgs. The limestone underneath and surrounding the pipelines was immovable. In addition to the vertical removal of the original excavation (where CS-9 through CS-14 were collected), the boundary of the original excavation area was removed horizontally, as depicted on Figure 4, Site Map B. Therefore, additional samples were taken on the bottom of the side walls of the expanded excavation at approximately two (2) feet bgs and on top of the limestone layer (Re-CS-10, Re-CS-14 and CS-15 through CS-18). Please see the attached photos, Figure 4 and Table 1 (attached).

- Sample CS-12 is over limit for TPH and BTEX.
  See previous response.

- Sample CS-13 is over limit for TPH. A closure report cannot be approved if contaminated soil is still in place. TPH concentration for samples CS-11 and CS-12 is extremely high. If rock refusal interferes with the remediation process, use a back-hoe/track-hoe to remove the rock. If the rock is immovable and target depth cannot be reached, use a hydrovac to clean the contaminated soil off of the rock surface and outline specific locations and steps taken on the Closure Report. Provide photos of the excavation.
  See previous response.

- Per Rule 19.15.29.12. D. (1) *The responsible party must test the remediated areas for contamination with representative five-point composite samples from the walls and base, and individual grab samples from any wet or discolored areas.* Additional remediation efforts are required for this site. All samples must be under the closure criteria for this site.

Based on the above mentioned Rule 19.15.29.12. D. (1), grab samples were taken from wet and discolored areas on the walls and base where applicable throughout the excavation and flow path areas. Areas that were sampled and came back above the closure criteria in the original excavation area were over excavated and resampled, as indicated on Figure 4 and Table 1 (attached).

The Denied C-141 can be found in the online image file. Please review and make the required correction prior to resubmitting through the fee portal.
Thank you,

Victoria Venegas
State of New Mexico
Energy, Minerals, and Natural Resources
Oil Conservation Division
811 S. First St., Artesia NM 88210
(575) 748-1283
Victoria.Venegas@state.nm.us