



DEPARTMENT OF NATURAL RESOURCES

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May 2, 2011

Mr. James Weber  
Coral Production Corporation  
1600 Stout Street, Suite 1500  
Denver, CO 80202

Re: Notice of Alleged Violation #200308970  
Christiansen B-5 Tank Battery API #121-10711  
NENW Sec. 27, T-3-S, R-50-W  
Washington County, Colorado

Dear Mr. Weber,

On April 28, 2011, Colorado Oil & Gas Conservation Commission (COGCC) field inspector, Colby Horton, observed large quantities of oil and oily material on the lease roads in Section 27, T-3-S, R-50-W. On April 29, 2011, I performed a follow up inspection with Colby Horton to document site conditions. At the time of the inspection a subcontractor to Coral Production Corp. (Coral) was dragging the oil into the lease roads with a backhoe. He indicated that he was land farming the material.

The oil and oily material had been spread at the turnaround next to the Christiansen B Tank Battery. It extended to the north approximately 715-feet to an intersection in the lease road. From the intersection, the material was spread west 600-feet to the Christianson 1 pumping unit, and from the intersection, the material was spread east 650-feet to the Christianson B3 pumping unit. Oil was also spread on a lease road located on the section line dividing Section 27 and Section 22. The material was spread from a point starting approximately 1100-feet due east of County Road RR and continuing east, then south for approximately one mile where it ended at the Young 33-27350 tank battery. In total, approximately 1.37-miles of lease road had been covered with oil and oily material. Two aerial photos depicting the extent of the oily material on the lease roads are provided as Attachment 1.

On the same day of the inspection, I contacted Sam Spears, contract pumper for Coral. Mr. Spears informed me that the oily material and fluids were generated from cleanout of the production tanks at the Christianson B Tank Battery. He said the material consisted of sand with approximately 20 to 30 barrels of liquids, although he could not provide an exact volume. He said that Coral had directed him to dump the tank bottoms on the lease roads. Mr. Spears indicated that he thought it was an acceptable method to dispose of the material and that it had been a long standing practice in the area.

During August of 2008, I performed inspections at the following Coral facilities: the Petersen #1, Peterson #2, USA-Brew #1 and State #1. Extensive areas of oily soil were documented at those facilities. It was also evident that oily material had been applied to lease roads in that area in the past. Subsequently, Coral was required to submit a Form 27 and properly remove and treat all oily material at those locations. At the time I tried to make it clear that placing oily material on lease roads was not an acceptable disposal method and it did not comply with land treatment requirements stipulated by COGCC Rule 907.e.(2).



Tank bottoms are considered an Exploration & Production (E&P) waste. In accordance with COGCC Rule 907.f. tank bottoms may be treated or disposed as follows:

- Disposal at a commercial solid waste disposal facility;
- Treatment at a centralized E&P waste management facility permitted in accordance with Rule 908;
- Injection into a Class II injection well permitted in accordance with Rule 325; or
- An alternative method proposed in a waste management plan in accordance with rule 907.a.(3) and approved by the Director.

If Coral had proposed application of tank bottoms to lease roads as a method of land treatment in a waste management plan, COGCC would not have approved it. Driving over oily material on a lease road is not an acceptable method to promote biodegradation of petroleum hydrocarbons. In addition, the area consists of very permeable eolian sands overlying the Ogallala Formation, an important aquifer, within the Northern High Plains designated groundwater basin.

As discussed in the corrective actions of the Notice of Alleged Violation (NOAV), COGCC is requiring Coral to immediately remove all material from the lease roads impacted by the intentional dumping of the tank bottoms. A sufficient number of confirmation soil samples shall be collected after removal to verify that all material exceeding Table 910-1 standards has been removed. Soil samples shall be analyzed for benzene, toluene, ethyl benzene, xylenes (BTEX) and Total Petroleum Hydrocarbons (TPH) in the gasoline, diesel and oil range. The material shall be properly disposed in accordance with COGCC Rules 907.e. and 907.f.

In addition to the intentional dumping of the tank bottoms, numerous other rule violations were observed at the Christiansen B Tank Battery. Large volumes of oily waste were observed, widespread junk, trash and unused equipment were observed and a general lack of routine maintenance was documented. Pictures from the inspection are provided for reference as Attachment 2. Produced water was intentionally being discharged from the water pit into a lake located to the south of the water pit complex. The Colorado Department of Public Health and Environment (CDPHE) does not have record of any permitted surface water discharge in Section 27. If you have a current Colorado discharge permit, please provide the information requested in the corrective actions of the NOAV as soon as possible. If you do not have a current discharge permit, immediately cease the discharge of produced water. Additional corrective actions may be required if the discharge was unauthorized by the state.

A total of six unlined skim pits were observed during the inspection, of which four were currently in use. Although it has been a common practice to use unlined skim pits in eastern Colorado, it is not allowed by Rule 904.a. Even prior to the recent rule changes that went into effect April 1, 2009, skim pits were always supposed to be lined in accordance with Rule 904.a. Recently, COGCC has started working with Oil & Gas Operators to bring unlined skim pits into compliance. As a result, Coral shall meet the closure requirements in accordance with Rule 905 for all six of the skim pits at the Christiansen B Tank Battery. This will require removal of all free liquids in the pits and disposal in accordance with the 907 rules. All impacted soil surrounding and below the pits shall be removed and also properly disposed in accordance with 907 rules. After all impacted material is removed, Coral shall collect a minimum of one sample from the bottom of each excavation and analyze for the contaminants of concern listed in Table 910-1 to verify that all impacted material was removed.

During closure of the skim pits Coral shall track the volumes of all wastes removed and disposed and include disposal documentation with the confirmation soil sample results on a Form 27 for prior approval before final closure or upgrading of the pits. The Form 27 required for the skim pits shall be a separate



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Form 27 unrelated to cleanup of the tank bottoms and other site-wide oily waste. If groundwater is encountered during excavation of impacted material, Coral shall collect a representative sample and analyze it for BTEX, Total Dissolved Solids (TDS), chlorides and sulfate. If groundwater has been impacted, Coral will be responsible for additional delineation and remediation of impacts. Once a Form 27 has been submitted with the sample results and disposal documentation, if all information is adequate, COGCC will approve final closure of the pits. Coral can choose to properly line the pits at that time in accordance with COGCC Rule 904 or the pits could be replaced with some other oil skimming method such as a skim vessel. If Coral chooses to line the skim pits, a Form 15 shall be submitted for prior approval before the pits are lined. An approved Form 2A will also be required.

In addition to the rule violations cited at the Christiansen B Tank Battery, I inspected the following Coral facilities: the Miller 1-A, the Young 33-27350, and the Dorothy Schwartz #1. Other than the Young, which is a relatively new facility, the Miller and Dorothy Schwartz showed similar house-keeping issues and lack of routine maintenance. Based on these inspections, COGCC intends to perform additional inspections at other Coral facilities in the near future. If there are similar issues at other Coral facilities, COGCC suggests taking proactive measures to bring them into compliance. If you are operating unlined skim pits at other facilities, COGCC will work with you to develop a schedule for voluntary closure or upgrading of those pits.

Due to the intentional dumping of the tank bottoms and the numerous rule violations cited at the Christiansen B Tank Battery, COGCC may pursue additional enforcement measures in accordance with Rule 523 in regard to the referenced NOAV. Your full cooperation and prompt response to the required corrective actions may help mitigate the final fine amount if proposed by the Director.

If you have any questions or require additional information, please contact me by email at [John.Axelson@state.co.us](mailto:John.Axelson@state.co.us), or by phone at 303-637-7178.

Sincerely,



John Axelson, P.G.  
Environmental Protection Specialist

Enclosures

Attachment 1 – Aerial Photos Depicting Extent of Oil Covered Lease Roads  
Attachment 2 – Pictures related to Inspection #200308960

Cc. David Neslin – Director COGCC  
Debbie Baldwin – Environmental Manager COGCC  
Steve Lindblom – Environmental Supervisor COGCC  
Rob Willis – Hearings Manager/Enforcement Officer COGCC