



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

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REMEDIATION WORK PLAN DENIAL - MERLAND SALT WATER DISPOSAL (30-015-22980)

A review of the remediation work plan received by the NMOCD District 2 Office on March 27, 2006 for the Merland Salt Water Disposal (30-015-22980) has been completed by this office. The work plan is being returned for revision subject to the following comments:

1. The workplan states, "No visible oil was carried over the berm from Area #1".
 - a. A site visit by NMOCD on March 1, 2006, noted that hydrocarbon staining and pooled hydrocarbons were outside of "Area #1" north of this bermed area.
 - b. Photos taken of this impacted area show native vegetation impacted by hydrocarbons and heavy hydrocarbon saturation to the soils approximately 150 feet north of "Area #1".
 - c. There were also smaller, unsaturated areas of hydrocarbon impact noted behind the tanks, outside the berm and fence line.
2. The method of remediation is not appropriate for the contaminants impacting the soils in "Area #2".
 - a. Utilizing fertilizer for promotion of in-situ bioremediation is not consistent with addressing chloride impacted soils, even when hydrocarbons are present. High concentrations of chlorides have been shown to defeat beneficial microbe growth in remediation studies.
 - b. Soil flushing with fresh water provides a mechanism to drive chlorides deeper into the soils without sufficiently diluting the chlorides to provide beneficial protection of ground water. While this flushing may encourage re-growth of vegetation by flushing chlorides from the root zone, it does not remove the risk of the contaminant reaching ground water.
3. A full horizontal and vertical site delineation is called for on this release. The extent of the impacted area can only be identified through a full delineation of the impacted area since visible chloride "residues" are not indicative of the full impact extent.

Please submit a revised work plan, addressing the above comments prior to April 20, 2006.

Artesia OCD District Office