

## Navajo Refining Company Crouch Mainline Remediation/Cleanup Work Plan Section 15, Township 17S, Range 36E Lea County, New Mexico

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Prepared for:

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### I. Purpose

The purpose of this work plan is to propose a plan for the cleanup of the historical contamination at the Crouch Pig Station. The subject area is located in Section 15, Township 17S, Range 36E, in Lea County, New Mexico. This plan will allow closure in a manner that will protect the population, environment and groundwater of the area surrounding the subject location. The site is a relatively level site.

#### II. Background

The subject site is located approximately 1 mile east of State Road 483 at mile marker # 9. The contamination of this site is historical and not a new spill. No C – 141 has been filed for this site.

#### III. Contaminant and Size of Area

The suspected contaminant is crude oil, which came from either leaks or pig cleaning of the pipeline. The approximate size of the impacted area is approximately 4000 sq. ft. No evidence of other contaminants was observed.

### IV. Vertical and Horizontal Extent of Contamination

The site investigation dated March 20, 2003 indicates the extent of contamination to be approximately 10' on average. The contamination does not appear to be uniform over the 50 X 80 foot area.

### V. Groundwater

According to the database provided by the New Mexico State Engineer's Office, the groundwater depth for Section 15, Range 36E, Township 17S is 36.89 feet below ground level. This measurement was taken on February 1, 1996.

### VI. Action Plan

#### Closure

Based on visual observations, the cleanup level reached by the application of the "Guidelines for Remediation of Leaks, Spills and Releases" New Mexico Oil Conservation Division – August 13, 1993 (Guidelines) to this site is 100-ppm TPH. Application of the NMOCD's ranking criteria for contaminated soils at this site is presented below.

Depth to Ground Water:	20 points
Distance to Well Head or Water Source:	0 points
Distance to Surface Water/Waterways:	0 points
Total Score:	20 points

This work plan proposes a risked based closure with soils blended to 1000 ppm TPH encapsulated by a plastic liner. The site will be excavated both horizontally and vertically for the removal all highly contaminated and/or saturated soils as defined in the Guidelines. Approximately 400 cubic yard of soil will be transported to

an NMOCD approved facility. The remaining impacted soils will be blended on site with clean soils in the area to a level no greater than 1000 ppm TPH.

The bottom and sides of the excavation will be sampled at the final excavation depths. Field-testing for Total Petroleum Hydrocarbons (TPH) will be performed on soil samples (EPA Method 418.1) using a GAC Mega Total Petroleum Hydrocarbon analyzer. The final samples collected will be preserved on ice and delivered along with Chain of Custody to Cardinal Laboratories, of Hobbs, New Mexico, for testing. Laboratory samples will be analyzed for Total Petroleum Hydrocarbons (EPA Method 600/4-79-020 418.1) and BTEX (EPA Method SW-846-8260).

Following the final sampling the excavation will be lined with 30 mil plastic and the excavation will be backfilled with blended soils to 3 to 4 feet below ground surface. The blended soils will be covered with 30 mil plastic and domed with clean soils from the area back to surface and returned to natural grade.

The project will commence within 30 days of NMOCD approval of this plan. Upon completion of the project, the appropriate reports will be filed with the NMOCD.

#### VII. Figures & Appendices

Figure 1. - Vicinity Map Figure 2. - Site Plan Appendix A. - Site Photos

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# Figure 1 Vicinity Map



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