

ENTERED

February 9, 2012

John E. Kieling, Acting Bureau Chief
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Bldg 1
Santa Fe, NM 87505



Certified Mail #: 7009 2250 0002 3833 5148 (To NMED)
Certified Mail #: 7009 2250 0002 3833 5155 (To OCD)

Re: Response to NMED's Approval with Modifications
Investigation Report Group 5 (SWMU No. 15 Tank Farm Area)
Western Refining Southwest, Inc., Bloomfield Refinery
EPA ID# NMD089416416
HWB-WRB-11-006

Dear Mr. Kieling:

Western Refining Southwest, Inc. – Bloomfield Refinery (Western) has prepared the following responses to comments received from the New Mexico Environment Department (NMED) in a letter dated November 4, 2011 on the above referenced investigation report.

NMED Comment No. 1: Section 3.2 (Background Information Research), page 9:

Western's Statement: "[d]ocuments containing the results of previous investigations and subsequent routine groundwater monitoring data from monitoring wells were reviewed to facilitate development of the Group 5 Investigation Work Plan. The previously collected data provides valuable information on the overall subsurface conditions, including hydrogeology and contaminant distribution within groundwater. The data collected under this investigation supplements the historical groundwater data and provides SWMU-specific information regarding contaminant occurrence and distribution within soils and groundwater."

NMED's Comment: In future work plans and reports, provide references and citations for all investigations used as background information for work plans and reports. Provide the reference for the investigation mentioned in the statement in a response letter.

Western Response No. 1: The reference for the investigations discussed in Section 3.2 and on page 4 of Section 2.1 is included in Section 8 ("References") of the Investigation Report and is as follows:

Groundwater Technology Inc., 1994, RCRA Facility Investigation/Corrective Measures Study Report Bloomfield Refining Company #50 County Road 4990 Bloomfield, New Mexico, p.51.

This document was only directly referenced in the text on page 12 of Section 4.2 but will be referenced directly with each use in future documents.

NMED Comment No. 2: Section 4.3 (Exploratory Drilling Investigations, Soil Sampling and Boring Abandonment, SWMU 15-12), page 17:

Western's Statement: "[t]he PID readings were low (2.3-3.2 ppm) over the upper eight feet but increased to 280 in the 10 to 12' interval and reached a maximum value of 1,325 ppm in the 14-16' interval. The PID reading decreased to 235 ppm in the 18 to 20' interval."

NMED's Comment: The 18 to 20 foot depth exhibited a PID reading of 235, but Western did not continue to advance the boring past this depth. In the response letter, explain why the boring was not advanced deeper than 20 feet or until the Nacimiento Formation was encountered. In all future investigations, if the field screening evidence indicates increasing or relatively high levels of contamination, Western must continue to advance the soil boring beneath the water table, until field screening indicates decreasing contaminant levels or until the drilling equipment hits refusal, or explain why drilling was discontinued.

Western Response No. 2: The decision was made to terminate the boring at a depth of 20 feet based on the PID readings that had decreased from 1,325 ppm in the overlying 14-16' interval to 235 ppm in the 18-20' interval. The field data indicated that the vertical extent of impact had reduced significantly from the most impacted layer (i.e., 14-16') and that the vertical extent of the impacted soils had been characterized. A review of the analytical results for soil sample SWMU 15-12 (18-20') indicates that none of the constituents exceed the respective screening levels, and nearly all of the organic constituents are non-detect.

Field screening is used as a tool for identifying potential areas of impacted soils, and such results often determine the intervals from which soil samples are collected for analytical confirmation. Extending field screening to below the zone of saturation for soil sampling purposes provides limited technical value in delineating potential source areas in soil because of technical limitation of screening saturated soil samples.

In future investigations, Western will continue to advance soil borings if the field screening evidence indicates increasing or relatively high levels of contamination, consistent with the requirements of the respective approved investigation work plan.

NMED Comment No. 3: Section 4.3 (Exploratory Drilling Investigations, Soil Sampling and Boring Abandonment, SWMU 15-13), page 17:

Western's Statement: "[a] maximum PID reading of 1,727 ppm was recorded from a depth of 12 to 14'. A silt deposit present from the land surface to a depth of eight feet graded to clayey silt, which persisted to a depth of 12' bgl. Silty sand is present from 12 to 16' bgl and grades to gravelly sand, which continued to the termination depth of 28' bgl."

NMED's Comment: Detected VOC concentrations decreased with depth in several of the borings exhibiting high PID readings. In the response letter, state whether or not boring SWMU 15-13 followed this same trend. In future work plans and reports, include discussions of all field screening information in the appropriate sections of the documents.

Western Response No. 3: The trend of decreasing PID readings with depth was not observed in boring SWMU 15-13. This is noted in the second and third sentences of this paragraph – "The boring was originally planned to have a termination depth of ten feet but due to the presence of potential impacts, the boring was extended to the depth of saturation. An odor and elevated PID reading (334 ppm) was observed from the lower portion of the zero to two foot interval and these field indications of potential impacts continued throughout the full depth of the boring."

NMED Comment No. 4: Section 7.2 (Recommendations), page 40:

NMED Comment: *Western recommends reassessing the analytical data from the SWMU No. 15 investigation with the background values established by the background study that was completed in the summer of 2011. Western recommends additional delineation in the vicinity of soil boring locations SWMU 15-6, 15-11, 15-12, and 15-13. Western must provide a work plan to conduct additional investigation at SWMU 15. At a minimum, the work plan must propose additional investigation to the water table beneath the site and must propose the collection of soil samples for analysis of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), Skinner List Metals, diesel range organics (DRO), gasoline range organics (GRO), motor oil range organics (MRO), and general chemistry. In addition, if groundwater is encountered, groundwater samples must be collected and analyzed with the same analytical suite as the soil samples as well as cyanide, and dissolved iron and manganese. If separate phase hydrocarbons are encountered, Western must collect a sample for fuel fingerprint analysis to characterize the product.*

Western Response No. 4: As requested, Western will submitted an investigation work plan on or before March 19, 2012 for the additional delineation of impacts identified in the areas of borings SWMU 15-6, 15-11, 15-12, and 15-13, considering the results of the background investigation.

NMED Comment No. 5: Section 7.2 (Recommendations), page 41:

Western's Statement: *"[w]ith the combination of groundwater data collected from previously existing wells and the new groundwater samples recently collected, the impacts to groundwater within the tank farm have been adequately characterized to support final remedy selection. No further investigation of groundwater within the tank farm is recommended at this time."*

NMED's Comment: *Western asserts that previous and current data have adequately characterized the groundwater in the SWMU that supports their final remedy. However, Western does not discuss a remedy or reference a submittal with plans for a remedy. Provide a discussion regarding potential remedies in the response letter.*

Western Response No. 5: Western did not discuss potential remedies for the groundwater impacts beneath SWMU No. 15 in the Site Investigation Report because the plume of impacted groundwater extends beyond SWMU No. 15 to other areas of the refinery property and it will be necessary to develop a final remedy for groundwater that encompasses all affected areas. While the groundwater impacts beneath SWMU No. 15 have been adequately characterized to support selection of a final remedy, other areas (e.g., SWMU Groups 8 and 9) are still subject to further investigation that could affect a final remedy decision for groundwater.

It is likely that the final remedy for groundwater will incorporate the existing interim measures (e.g., the slurry wall and recovery of phase separate hydrocarbon using recovery wells) combined with monitored natural attenuation; however, until planned investigations in the remaining areas of the site are completed, it is premature to get any more specific regarding potential remedies. Western anticipates that NMED will provide notification pursuant to Provision VI.C.1 that a Corrective Measures Evaluation is required for groundwater, but requests that NMED not provide such notification until all groundwater investigations have been completed.

NMED Comment No. 6: Table 1 (Historical Subsurface Soil Vapor Concentrations):

NMED's Comment: *Western provides a table summarizing the historical subsurface soil vapor concentrations from a previous investigation, but a reference document is not cited. Provide replacement pages for the tables with the response letter that provides the reference in the table notes.*

Western Response No. 6: The reference document is the same document discussed above in response to Comment No. 1. The reference has been added to the revised tables, which are enclosed. It should be noted that the reference source, which depicts the subsurface soil vapor concentrations, was included on Figure 3 in the previous submitted investigation report dated July 2011.

NMED Comment No. 7: Table 2 (Historical Groundwater Analyses):

NMED's Comment: *Table 2 provides a summary of the historical groundwater data. In several cells of the table, "--" was not defined. In future documents, define all symbols in all tables.*

Western Response No. 7: The symbol "--" will be defined in future tables.

NMED Comment No. 8: Table 3 (Group 5 Soil Boring Samples-Vapor Screening Results):

NMED's Comment: *Western provides a summary of the soil boring sample vapor screening results but it is not clear when these screening results were collected. In future work plans and reports, provide collection dates for the screening data and include a note identifying the instrument and its detection range used to collect the screening level readings.*

Western Response No. 8: The vapor screening results reported in Table 3 were collected on the same date and time as when the soil borings were completed. The soil sample collection dates, which are the same as the date of the vapor readings, are reported in Table 7 (Group 5 Soil Analytical Results Summary) and are also included in the discussion of the soil screening results in Section 4.3 and are recorded on the soil boring logs included in Appendix C – Borings Logs. The instrument used to collect the field vapor readings is described in Appendix A – Field Methods.

NMED Comment No. 9: Figures 4 (Cross Section A-A', West to East), 5 (Cross Section B-B', North to South), and 6 (Cross Section C-C', North to South):

NMED's Comment: *Figures 4, 5, and 6 are missing screened intervals for the following monitoring wells, MW-1, MW-3, MW-5, MW-6, MW-41, MW-42, MW-44, MW-52, and RW- 42. Provide replacement pages with the missing information and ensure all well information is available on all figures in future documents.*

Western Response No. 9: The screen intervals are not available for the listed wells. The cross sections have been revised for to include a note that screen intervals are not available for the affected wells.

NMED Comment No. 10: Appendix B (Survey Data):

NMED's Comment: *Appendix B provides survey data for the soil borings and new monitoring wells from the investigation. However, in Section 3.4 (Surveys), Western does not discuss the survey point locations for the new monitoring wells (e.g., north side of the PVC casing or the*

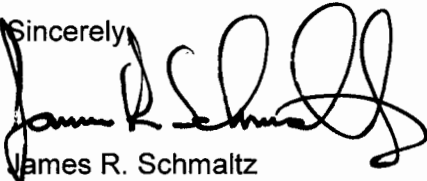
highest location on the PVC casing). In future documents, Western must describe the location of the measuring points for all monitoring wells.

Western Response No. 10: In future documents, Western will describe the location of measuring points for monitoring wells.

Please find enclosed the respective replacement pages as requested in the November 4, 2011 letter from NMED. An investigation work plan covering the additional investigation requested in the Tank Farm will be submitted on or before March 12, 2012, as specified.

If you have questions regarding the above responses or the enclosures, please contact me at (505) 632-4171.

Sincerely,



James R. Schmaltz
Health, Safety, Environmental, and Regulatory Director
Western Refining Southwest, Inc. - Bloomfield Refinery

Enclosures

cc: Dave Cobrain – NMED HWB
Leona Tsinnajinnie – NMED HWB
Carl Chavez - NMOCD
Allen Hains – Western Refining El Paso

**Replacement Pages for the
Group 5 Investigation Report (July 2011)**