



DEPARTMENT OF THE ARMY
U.S. ARMY GARRISON WHITE SANDS
100 Headquarters Avenue
WHITE SANDS MISSILE RANGE, NEW MEXICO 88002-5000

June 2, 2006

REPLY TO
ATTENTION OF

Directorate of Public Works

Ms. Cheryl Frischkorn
 New Mexico Environment Department
 Hazardous Waste Bureau
 2905 Rodeo Park Drive East, Building 1
 Santa Fe, New Mexico 87505-6303



Subject: ADMINISTRATIVE UPDATE FOR RCRA FACILITY INVESTIGATION AT SWMU-198, LC-38 DIESEL SPILL ON WHITE SANDS MISSILE RANGE

Dear Ms. Frischkorn:

Enclosed are the administrative update documents for the RCRA Facility Investigation at SWMR-198, LC-38 Diesel Spill as well as appropriate reports for White Sands Missile Range.

White Sands Missile Range could not confirm that documentation for the subject projects were also provided to the New Mexico Environment Department Hazardous Waste Bureau (HWB). In our May 17, 2006 telephone conference with you, we stated that we were preparing to send the project documentation. In addition to these required records, we are providing the latest project report.

Copies of this correspondence are being furnished to Mr. John Kieling, NMED HWB; Mr. Chuck Hendrickson, Region VI EPA; Ms Yvonne B. Tyler, USARMY Installation Management Agency; and Mr. Edward Martinez, White Sands Technical Services, LLC.

Please contact Mr. Javier Mendoza of our office at (505) 678-1007 if you have any questions regarding this matter.

Sincerely,

Thomas A. Ladd

Thomas A. Ladd
 Director, Public Works

Enclosure

Documents Submitted w/ this letter

→ Work Plan for the RCRA Facility Investigation at the LC-38 Site on WSMR (FEB 2002)
 → FINAL SWMU Assessment Report for the LC-38 DIESEL Spill on WSMR (September 2004)



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5 April 2006
WTS-06-072

U.S. Army White Sands Missile Range
100 Headquarters Avenue
ATTN: IMSW-PW-E (Ms. Y. Romero)
White Sands Missile Range, NM 88002-5000

Subject: TO20, LC-38 Ground Water Monitoring

Reference: Contract W9124Q-04-D-0012

Dear Ms. Romero:

This is to submit the following letter report:

Calendar Year 2006 Ground Water Monitoring at the LC-38 Diesel Spill.

Should you have any questions or require additional information, please contact me at 678-7907 or Mr. John Mills at 678-0891.

Sincerely,
White Sands Technical Services, LLC

Edward H. Martinez
Program Manager

Encl/as

cc: Javier Mendoza, Technical Inspector, PW-E-EC, (w/enclosures)
PW-E-ES Library, (w/enclosures)
Bradley Davis, Task Coordinator, WTS, (w/o enclosures)

LETTER REPORT

The following letter report was prepared under Contract W9124Q-04-D-0012, TO No. 0020.

1. TITLE

Calendar Year 2006 Ground Water Monitoring at the LC-38 Diesel Spill

2. DATE

April 2006

3. INTRODUCTION

In the summer of 2000, White Sands Missile Range (WSMR) discovered that approximately 31,000 gallons of diesel fuel leaked from an above-ground storage tank (AST) located at Launch Complex 38 (LC-38). A SWMU Assessment was performed which determined diesel contamination to 75 ft below ground surface (bgs). However, based on current and foreseeable land uses at LC-38, no exposure pathways were considered complete. WSMR determined that ground water monitoring for fuel on the water table at LC-38 would be completed annually. This report presents results of the Calendar Year 2006 petroleum/water interface monitoring of the water table at LC-38.

4. BACKGROUND

A strategic reserve of diesel fuel was stored for the Defense Fuels Agency in a 150,000-gallon AST at LC-38 on White Sands Missile Range (WSMR). During an annual evaporative loss measurement conducted in the summer of 2000, WSMR personnel could not account for missing fuel estimated in the amount of 31,000 gallons. Following a preliminary investigation at the site conducted in February 2001, the New Mexico Environment Department (NMED) Hazardous Waste Bureau (HWB) took the regulatory lead for this investigation and required a Resource Conservation and Recovery Act (RCRA) Solid Waste Management Unit (SWMU) Assessment be performed. This site is listed as SWMU 198. WSMR RCRA activities are governed by Hazardous Waste Permit NM2750211235, issued 24 October 1989, and amended 17 August 1992. The investigative efforts are pursuant to Module VIII, Section S, Task III of this permit. These efforts focus on source characterization and defining contaminant characteristics as stated under Task III.

The SWMU Assessment was performed by WSMR to further characterize the geology and hydrology of the diesel spill site, the extent of contamination in soils and ground water, and determine future actions for the site based on a Risk Based Decision Making Analysis. Activities of this investigation were detailed in the September 2004 final report titled "SWMU Assessment Report for the LC-38 Diesel Spill on White Sands Missile Range."

Results of the SWMU Assessment indicated that a significant amount of diesel fuel leaked into the subsurface at LC-38. Contamination resulting from this release had reached a maximum depth of approximately 75 ft bgs. The contaminant plume is supported by the thick, laterally continuous clay layer, approximately 20 ft thick. The thick, continuous clay layer has prevented further downward migration of the diesel fuel. Ground water monitoring wells installed and sampled during the SWMU Assessment show that depth to regional ground water is greater than 230 ft bgs. Analytical results from ground water samples indicated that, at the time of the report, contamination had not reached the regional water table.

The SWMU Assessment Report stated that, based on current land use, no exposure pathways are considered complete. No residential areas will be built for the foreseeable future and no construction activities are planned for this site. Based on these findings, the site is currently protective of human health and ecological exposure.

WSMR proposed No Further Remedial Action for the site and stated that the WSMR Real Property Planning Board will zone this site as off limits for future commercial/residential use. The report also proposed that WSMR would monitor the wells at the site on an annual basis for 10 years using an interface probe for determination if fuel is present on the water table. During calendar year 2005, the diesel fuel tank was removed from the site.

5. DISCUSSION AND CONCLUSIONS

On 14 March 2006, WTS collected petroleum/water interface probe data at the LC-38 monitoring wells MW-001 through MW-004. Ground water was determined to be at 232.82 ft bgs, 237.13 ft bgs, 236.94 ft bgs, and 236.68 ft bgs, respectively, in monitoring wells MW-001, MW-002, MW-003, and MW-004. No fuel product was found in any wells on site. This indicates that diesel fuel contamination has not reached ground water.

6. RECOMMENDATIONS

Continue annual petroleum/water interface probe monitoring at the LC-38 monitoring wells.

7. WTS TASK MANAGER AND TASK COORDINATOR / PHONE NO.:

The Task Manager and Task Coordinator for TO #0020 are Fred Bourger, 678-3426, and Brad Davis, 678-3397, respectively.