



MICHELLE LUJAN GRISHAM  
GOVERNOR

JAMES C. KENNEY  
CABINET SECRETARY

**Certified Mail - Return Receipt Requested**

April 25, 2022

Brian D. Knight  
Environmental Division (Building 163)  
U.S. Army White Sands Missile Range  
White Sands Missile Range, NM 88002-5000

**RE: APPROVAL WITH MODIFICATIONS  
2018 GROUNDWATER FREQUENT MONITORING REPORT  
SWMU 198 LC-38 DIESEL FUEL OIL RELEASE  
WHITE SANDS MISSILE RANGE, NEW MEXICO  
DONA ANA COUNTY, WHITE SANDS MISSILE RANGE, NEW MEXICO  
EPA ID #NM 2750211235  
HWB-WSMR-20-016**

Dear Mr. Knight,

The New Mexico Environment Department (NMED) has received the U.S. Army White Sands Missile Range (the Permittee, WSMR) *2018 Groundwater Frequent Monitoring Report SWMU 198, LC-38 Diesel Fuel Oil Release* (Report), dated October 2020 and received December 16, 2020. NMED has reviewed the Report and hereby issues this Approval with Modifications with the following comments.

**1. Section 2, Scope of Activities, page 2-1:**

**Permittee Statement:** "There is no established groundwater monitoring plan; sampling and analyses are based on correspondence from NMED requiring annual sampling for chromium and DRO for an undefined period (NMED, 2007)."

**NMED Comment:** Appendix 5 (Investigation and Sampling Methods and Procedures) of the December 2009 RCRA Permit (Permit) states "[t]he Permittee shall submit to NMED, for review and written approval, site-specific work plans for sites prior to the commencement of field activities where environmental investigation, corrective action, sampling or monitoring is being conducted or proposed. The site-specific work plans shall include the methods to be used to conduct all activities at each site or unit and shall be prepared in accordance with the format described in the Permit Appendix 7

SCIENCE | INNOVATION | COLLABORATION | COMPLIANCE

Hazardous Waste Bureau - 2905 Rodeo Park Drive East, Building 1, Santa Fe, New Mexico 87505-6313  
Telephone (505) 476-6000 - [www.env.nm.gov](http://www.env.nm.gov)

(Reporting Requirements).” NMED’s June 11, 2018 *Disapproval 2018 Groundwater Frequent Monitoring Report SWMU 198, LC-38 Diesel Fuel Oil Release* states: “The Permittee must submit a groundwater monitoring work plan. The Permittee must propose a sampling schedule. The Permittee must propose to gauge and monitor the wells, collect groundwater parameters and analyze groundwater samples for constituents of concern. The groundwater monitoring work plan must be submitted no later than November 2, 2018.”

The Permittee has not complied with the requirement to provide NMED with a groundwater monitoring work plan for SWMU 198. The Permittee must submit a groundwater monitoring work plan as required by the Permit and NMED’s June 11, 2018 letter. Failure by the Permittee to provide the groundwater monitoring plan in a timely manner will result in a Permit violation. The Permittee must submit two hard copies of the groundwater monitoring work plan and one electronic copy on a CD/DVD by **October 28, 2022**.

**2. Section 3, Regulatory Criteria, page 3-1:**

**Permittee Statement:** “If the criterion is below the achievable laboratory limit of detection, then the screening level is considered to be the laboratory limit of quantitation.”

**NMED Comment:** Screening levels are not subject to change based on laboratory reporting limits. Analyses conducted with detection limits that are greater than applicable background, screening, and regulatory cleanup levels are considered data quality exceptions and the reasons for the elevated detection limits shall be reported to the NMED in accordance with Permit Appendix 5, Section 5.3. Data quality exceptions that could potentially mask detections must be reported in the analytical data summary tables as specified by Permit Appendix 7, Section 7.4.11 and the limit of quantitation be the reported value for the sample. Revise the statement for accuracy. In addition, the Permittee must use a contract analytical laboratory that possesses the capability to achieve reporting limits that are less than the applicable screening levels.

**3. Section 5, Analytical Data Results, page 5-1:**

**Permittee Statement:** Hexavalent chromium was not detected in 2018. It has been detected only on two occasions: once in 2010 and once in 2015, both in LC38-MW-04, which is downgradient of the unit. Both detections (0.008 and 0.0039 mg/L) were “J-flagged” as estimated values due to their relatively low concentrations.

**NMED Comment:** The Permittee analyzed for hexavalent chromium in groundwater using analytical test method E218.6. United States Environmental Protection Agency

(EPA) documentation for method E218.6 indicates that overloading of the analytical column capacity with high concentrations of anionic species, especially chloride and sulfate, will cause a loss of hexavalent chromium in the analytical sample (Method 218.6: Determination of Dissolved Hexavalent Chromium in Drinking Water, Groundwater, and Industrial Wastewater Effluents by Ion Chromatography, Rev. 3.3. EPA, 1994). Historic ground water data for the LC-38 site demonstrate that both chloride and sulfate are present at high concentrations. As a result, it is likely that the reported hexavalent chromium data are not representative of the actual concentrations in ground water at this site. The Permittee must demonstrate that analytical method E218.6 is appropriate given the ground water conditions at LC-38 or consider total chromium concentrations to be equivalent to hexavalent chromium concentrations.

**4. Appendix B, Analytical Program, page Appendix B-2:**

**Permittee Statement:** "The data validator completed a data usability assessment for each data package. The validator's summary of data quality exceptions and their effects on the acceptability of the analytical data regarding each monitoring event are attached. There were no rejections of data for this year's monitoring events. Overall, the data were determined to be acceptable for the intended purpose."

**NMED Comment:** The data validator's summary of data quality exceptions is not included in the hard copy version of the Report. Provide a copy of the data validator's summary.

The Permittee must address all comments in this Approval with Modifications and must submit hard copies of the replacement pages and data validator's summary, an electronic redline-strikeout copy showing where all changes have been made, and a clean electronic version of the revised Report no later than **July 29, 2022**. The Permittee must also submit a groundwater monitoring work plan for SWMU-198 as required by Comment 1 of this Approval with Modifications no later than **October 28, 2022**.

This approval is based on the information presented in the document as it relates to the objectives of the work identified by NMED at the time of review. Approval of this document does not constitute agreement with all information or every statement presented in the document.

Mr. Knight  
April 25, 2022  
Page 4

Should you have any questions, please contact Robert Murphy of my staff at (505) 690-5660.

Sincerely,

**Rick Shean**

Digitally signed by Rick  
Shean  
Date: 2022.04.25  
08:47:34 -06'00'

Rick Shean  
Bureau Chief  
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB  
R. Murphy, NMED HWB  
L. Tsinnajinnie, NMED HWB  
B. Avalos, WSMR  
J. Smith, WSMR  
L. King EPA Region 6 (6LCRRC)

File: WSMR 2020 and Reading