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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

January 25, 2021

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

**RE: DISAPPROVAL
2019 GROUNDWATER MONITORING REPORT
SWMU 119 STALLION RANGE LANDFILL
SWMU 120 FORMER STALLION CENTER LANDFILL
WHITE SANDS MISSILE RANGE, NEW MEXICO
EPA ID #NM 2750211235
HWB-WSMR-20-008**

Dear Mr. Knight:

The New Mexico Environment Department (NMED) has received the White Sands Missile Range (WSMR) *2019 Groundwater Monitoring Report, SWMU 119 Stallion Range Landfill, SWMU 120 Former Stallion Center Landfill (Report)*, dated October 2020 and received November 2, 2020. NMED has reviewed the Report and hereby issues this disapproval with the following comments.

1. Section 1.2, Scope of Activities, page 1-2:

NMED Comment: The description of groundwater purging and sampling presented in Section 1.2 of the Report does not match the information provided in the field documentation sampling logs. For example, the text states that measured water levels were recorded to the nearest 0.01 feet (ft) while the sampling logs indicate that most of the measurements were recorded to 0.1 ft. WSMR Resource Conservation and Recovery Act Permit (Permit) Appendix 5, Section 5.2.2.h.i Groundwater Levels requires that the

depth to groundwater be measured to the nearest 0.01 ft. The description of low-flow purging in Section 1.2 states that purging was initiated at approximately 150 ml/minute (0.15 liters per minute) while the sampling logs indicate a purge rate of 600-800 ml/minute. Revise the Report to accurately state the groundwater purging and sampling data as described in the field documentation sampling logs.

2. Section 2.5.2, Water Level Measurements, page 2-5:

NMED Comment: Section 2.5.2 states that Table 2 presents well construction details, including depth to water measurements; however, Table 2 actually presents water quality parameters. Revise the Report to provide a table with water level measurements. Permit Appendix 7, Section 7.4.11-2 requires that the table include the monitoring well depths, the screened intervals in each well, and the dates and times of measurements.

3. Section 2.5.5.2, Data Usability, page 2-7 and Table 1, Groundwater Analytical Results:

a. NMED Comment: Several analytes listed in Table 1 have a screening level that exceeds the stated laboratory analytical method limit of quantitation (LOQ). For example, the United States Environmental Protection Agency (USEPA) Maximum Contaminant Level (MCL) for aluminum is 0.05 mg/L while the LOQ is 0.1 mg/L. The LOQ must be low enough to ensure sample detections near the lowest acceptance limit are quantifiable. Permit Appendix 5, Section 5.3, Chemical Analyses, states:

“The detection limits for each method shall be less than applicable background, screening, and regulatory cleanup levels. The preferred method detection limits are a maximum of 20 percent of the cleanup, screening, or background levels. Analyses conducted with detection limits that are greater than applicable background, screening, and regulatory cleanup levels shall be considered data quality exceptions and the reasons for the elevated detection limits shall be reported to NMED. These data cannot be used for statistical analyses.”

Revise the text, tables, and figures of the Report to identify all data quality exceptions such as instances of the LOQ exceeding the corresponding screening level. The Permittee must ensure that the analytical methods and the laboratory conducting the chemical analyses meet the Permit requirements. Failure to meet Permit requirements may result in additional rounds of groundwater monitoring. NMED notes that the problem of the LOQ exceeding the corresponding screening level was not indicated in the 2018 groundwater monitoring report.

b. Table 1 lists the USEPA Regional Screening Level (RSL) tap water standard for arsenic as 0.052 mg/L. The correct value is 0.000052 mg/L. Additionally, the analytical

samples that exceed the standard for arsenic have not been highlighted in the table. Revise Table 1 to ensure all values and corresponding units are accurate and that all screening level exceedances are identified.

4. Section 2.5.6, Field Quality Control, page 2-7:

NMED Comment: Based on the information provided in Section 2.5.6, it does not appear that the Permittee met the Permit requirements for groundwater sampling quality control. Permit Appendix 5, Section 5.2.2.i.iv, Groundwater and Surface Water Sample Types states:

“Groundwater samples shall be collected from each monitoring well and surface water samples shall be collected at predetermined locations. Field duplicates, field blanks, equipment rinseate blanks, reagent blanks, if necessary, and trip blanks shall be obtained for quality assurance during groundwater and surface water sampling activities. The samples shall be handled as described in Section 5.2.2.j of this Permit Appendix.

Field duplicate surface water and groundwater samples shall be obtained at a frequency of ten percent. At a minimum, one duplicate sample per sampling event shall always be obtained.

Field blanks shall be obtained at a frequency of no less than one per day per site or unit.

Equipment rinsate blanks shall be obtained for chemical analysis at the rate of five percent but no fewer than one rinsate blank per sampling day. Equipment rinsate blanks shall be collected at a rate of one per sampling day if disposable sampling apparatus is used.

Reagent blanks shall be obtained at a frequency of ten percent but no fewer than one per day per unit if chemical analyses requiring the use of chemical reagents are conducted in the field during water sampling activities.

Trip blanks shall accompany laboratory sample bottles and shipping and storage containers intended for VOC analyses.”

The Permittee must revise the Report to address the absence of groundwater quality control samples. The Permittee must also ensure that the Permit requirements are met for future all groundwater sampling activities at the facility.

5. Appendix D, Laboratory Reports and Data Validation Reports:

NMED Comment: The compact disc (CD) included as an attachment to the Report does not contain the laboratory and data validation reports. Provide the data reports on a CD with the revised copy of the Report.

Mr. Knight
2019 GWMR SWMUs 119 and 120
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The Permittee must address all comments contained in this disapproval and submit a revised Report no later than **April 30, 2021**. The revised Report must include a response letter that details where all revisions have been made, cross-referencing NMED's numbered comments. In addition, an electronic version of the revised Report must be submitted that identifies where all changes have been made in red-line strikeout format.

Should you have any questions or wish to meet with us to discuss these comments, please contact Rob Murphy at (505) 795-1403.

Sincerely,

**Kevin
Pierard**

Digitally signed by
Kevin Pierard
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Kevin M. Pierard, Chief
Hazardous Waste Bureau

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

File: WSMR 2020 SWMUs 119-120 and Reading