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CERTIFIED MAIL - RETURN RECEIPT REQUESTED



James C. Kenney
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Deputy Secretary

January 22, 2020

Mark Patterson
BRAC Environmental Coordinator
Fort Wingate Depot Activity
13497 Elton Road
North Lima, OH 44452

**RE: APPROVAL WITH MODIFICATIONS
FINAL NORTHERN AREA BACKGROUND WELL INSTALLATION AND COMPLETION
REPORT
FORT WINGATE DEPOT ACTIVITY
MCKINLEY COUNTY, NEW MEXICO
EPA ID# NM6213820974
HWB-FWDA-19-003**

Dear Mr. Patterson:

The New Mexico Environment Department (NMED) is in receipt of the Fort Wingate Depot Activity (Permittee) *Final Northern Area Background Well Installation and Completion Report* (Report), dated May 9, 2019, and submitted on October 24, 2019. NMED has reviewed the Report and hereby issues this Approval with Modifications. The Permittee must address the following comments.

GENERAL COMMENT

1. Soil Sampling during the Advancement of Borings

NMED Comment: Soil samples were not retained for laboratory analysis during the advancement of borings. Although the approved *Fort Wingate Depot Activity Groundwater*

Monitoring Northern Area Background Well Installation Letter Work Plan, dated September 18, 2017, did not require the collection of soil samples, various contaminants were detected in groundwater samples collected from the alluvial groundwater wells that were located close to the newly installed wells (e.g., BGMW08). Therefore, the presence or absence of contaminants in the soils should have been evaluated during the advancement of borings. In the future, NMED requires the collection of soil samples from every soil boring for laboratory analysis. A minimum of three soil samples should be collected from each boring at the vadose zone with the highest PID reading, if applicable, at the water table, and the termination depth. Include the provision for all future soil borings conducted at the Facility. No revision required.

SPECIFIC COMMENTS

2. Section 2.1, Geology of Target Formation, lines 24-29, page 1

Permittee Statement: "Total depths of the proposed bedrock wells in the approved Letter Work Plan were estimated at 150 feet below ground surface (bgs) for BGMW10, 220 feet bgs for BGMW09, 275 feet bgs for BGMW08, and 300 feet bgs for BGMW07. The target water-bearing sandstone within the Painted Desert Formation was encountered in the field at shallower depths to the north of BGMW10. Total depths drilled were 147 feet bgs at BGMW10, 173 feet bgs at BGMW09, 186 feet bgs at BGMW08, and 256 feet bgs at BGMW07."

NMED Comment: The actual depth to the bedrock aquifer was shallower than anticipated. Explain the cause of the discrepancy between the actual and anticipated depths and provide replacement pages for the Report. Additionally, the groundwater elevation in well BGMW08 was more than 100 feet lower than those of other bedrock wells. Well BGMW08 may not have been screened to the same water bearing zone in comparison to the other wells. Since well BGMW08 was installed to evaluate background groundwater conditions, the groundwater extracted from well BGMW08 must originate from the same aquifer. Discuss the appropriateness of utilizing well BGMW08 as a background groundwater monitoring well and provide replacement pages for the Report.

3. Section 2.3, Well Development, lines 26-28, page 2

Permittee Statement: "Development was discontinued when the field geologist, with the authorization by the Sundance Project Manager, determined that further effort would not achieve the turbidity requirement."

NMED Comment: Well BGMW08 was redeveloped and the productivity was improved. Further well development may potentially reduce turbidity. Provide an explanation for the

basis stating that the further effort of well development would not achieve the turbidity requirement and provide replacement pages for the Report.

4. Section 4, Summary and Conclusions, lines 26-27, page 3

Permittee Statement: "Analytical and monitoring data will be provided in the forthcoming groundwater PMR."

NMED Comment: According to the *Final Groundwater Periodic Monitoring Report July through December 2018*, perchlorate was detected below the applicable screening level in all bedrock groundwater monitoring wells except well BGMW10. If the groundwater has already been affected by site's contaminants of concern, these wells may not be suitable for the evaluation of background groundwater conditions. Evaluate and discuss the viability of these wells as background groundwater monitoring wells. Provide replacement pages for the Report.

The Permittee must address all comments in this Approval with Modifications and submit a response letter, replacement pages and electronic version of the revised Report no later than **May 1, 2020**.

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. Patterson
January 22, 2020
Page 4

If you have questions regarding this letter, please contact Michiya Suzuki of my staff at 505-476-6059.

Sincerely,



Kevin Pierard
Chief
Hazardous Waste Bureau

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