

DEPARTMENT OF THE ARMY OFFICE OF THE ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT 600 ARMY PENTAGON WASHINGTON, DC 20310-0600

June 24, 2019

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### **Base Realignment and Closure Division**

Mr. John Kieling Chief, Hazardous Waste Bureau New Mexico Environment Department 2905 Rodeo Park Drive East, Building 1 Santa Fe, New Mexico 87505-6303

RE: Final Revision 1 Groundwater Periodic Monitoring Report, July through December 2017, Response to April 16, 2019 Approval with Modifications Letter, Fort Wingate Depot Activity, McKinley County, New Mexico, EPA #NM6213820974, HWB-FWDA-18-003

Dear Mr. Kieling:

This letter is in reply to the New Mexico Environment Department (NMED) Approval with Modifications Letter dated April 16, 2019 regarding the Final Revision 1 Groundwater Periodic Monitoring Report, July through December 2017, Fort Wingate Depot Activity (FWDA) under RCRA Permit ID No. NM6213820974. The following are the Army's responses to comments detailing where each comment was addressed and cross-referencing the numbered NMED comments. This letter also transmits the revised report and a red-line strike-out electronic copy of the edits.

## Comments

1) NMED Approval with Modifications Comment #1: Well TMW04 is now depicted inside the contour line; however, the contour line was revised from 7 µg/L to 9.7 µg/L. The RDX screening level was also changed from 7 µg/L to 9.7 µg/L in Table 5.3. Provide an explanation for the revised RDX screening level in a response letter. Since the RDX concentration in the groundwater sample collected from well TMW04 is recorded as 9.1 µg/L, well TMW04 should be depicted outside the 9.7 µg/L contour line. Correct the figure to accurately present of the plume and provide a replacement figure.

**Army Response:** The screening level for RDX was updated from 7  $\mu$ g/L to 9.7  $\mu$ g/L because the EPA RSL changed in November 2015. The isoconcentration contour on Figure 5-3 has been corrected to depict TMW04 outside the contour, and the revised figure is included with this letter.

2) NMED Approval with Modifications Comment #2: Since EDB analysis using EPA Method 8011 was conducted in October 2015, and none of the groundwater samples contained detectable EDB concentrations, NMED concurs with the Permittee's proposal to not include EDB analysis in the future IFGMP. No response is required.

Army Response: The Army concurs with NMED's statement

3) NMED Approval with Modifications Comment #3: Comment 38 in the NMED's Disapproval Final Parcel 3 Groundwater RCRA Facility Investigation Report

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(Report), dated October 17, 2018, directed the Permittee to provide the analytical results for Well 69 as part of the response to Comment 6 in the response letter for the September 4, 2018 *Disapproval*. Accordingly, provide the analytical results.

**Army Response:** Concur. As mentioned in the Army response letter dated March 4, 2019 (HWB-FWDA-18-003), the Army has executed a new Contract in December 2018. The new Contractor has initiated the Interim Groundwater Monitoring program starting January 1, 2019. The sampling parameters required for Well 69 will be collected in April 2019 and the results will be incorporated in the January-June 2019 Groundwater Periodic Monitoring Report (GPMR).

4) NMED Approval with Modifications Comment #4: Due to the on-going issues related to the course of action for Well 69, the investigation may potentially be further delayed. Comment 7 states, "propose to measure the [depth to water] DTW in Well 69." If the DTW data was previously collected for Well 69, provide the data in the response letter.

**Army Response:** Comment noted. The Army has contracted ECO & Associates to conduct a video survey of the well. Well 69 is completed in a confined aquifer, and the hydrostatic pressure is sufficient to cause the water to rise above the land surface (artesian flow). The flow to the surface is approximately 6 gpm, and well head pressure was measured in April 2019 at 63.5 PSI.

5) NMED Approval with Modifications Comment #5: The clarification provided for the bedrock hydraulic gradient must also be provided for the alluvial hydraulic gradient. Section 4.1.1, Northern Area Alluvial Groundwater System, lines 12-13, page 4-2, states that the hydraulic gradients ranged from 0.002 foot/foot (ft/ft) to 0.03 ft/ft in the alluvial groundwater unit. However, the reference points used to calculate the gradients were not stated. Provide a map showing the reference points, and replacement pages for a revised Section 4.1.1.

**Army Response:** The reference points used to calculate for the alluvial hydraulic gradients were TMW24 and TMW25, TMW40S and TMW25, TMW28 and TMW24, and TMW31S and TMW40S. The text in Section 4.1.1 has been revised to state these points. Figure 4-1 and Figure 4-2 have also been edited to depict the vectors for the calculation. Please note than the potentiometric surface contours on Figure 4-1 and Figure 4-2 may be used to interpret the relative steepness of the hydraulic gradient throughout the monitoring area.

6) NMED Approval with Modifications Comment #6: The Permittee must complete minimum of two rounds of explosives analysis. The results must be evaluated to determine if there are detections of explosive compounds that warrant the inclusion of explosive compound analysis in the IFGMP updates. In the applicable groundwater monitoring reports, discuss the results of the analysis for the groundwater samples collected from well TMW13.

Army Response: Concur. Well TMW13 was sampled for explosives in October 2018 and April 2019. Validated analytical results will be presented in the July to December 2018 GPMR, and the January to June 2019 GPMR. For reference, TMW13 was also sampled for explosives in October 1998, February 1999, October 2002, March 2003, May and October 2008, and April 2009. All results were non-detect.

7) NMED Approval with Modifications Comment #7: Although NMED issued a disapproval for the Letter Work Plan Downgradient Alluvial Aquifer Investigation & Installation of One Additional Well on February 5, 2019, the disapproval was primarily related to the investigation and the installation of proposed alluvial wells. NMED did not have issues with the proposed installation of bedrock well east of well TMW39D and the proposed location of bedrock well depicted on Figure 4 of the Letter Work Plan appears appropriate.

Army Response: Concur. The Army appreciates NMED's input.

8) NMED Approval with Modifications Comment #8: The NMED does not agree with the proposed approach. The Permittee has a long history of adhering to the guidance provided in NMED's Risk Assessment Guidance for Site Investigations and Remediation (RAG). While the FWDA RCRA Permit does specify the screening level hierarchy, the Permit was written over 13 years ago. The hierarchy was appropriate at that time, but risk assessment methods have evolved significantly since then, and more recent methods include new screening levels for contaminants that are regularly updated and published in the RAG. The permittee has benefitted from the changes to the RAG over the years, as well as other accommodations that the NMED has allowed, such as the ability to compare arsenic concentrations to a range of background values. The comment simply directs the Permittee to compare the TPH-D concentrations to the screening level provided in the RAG. Should the Permittee refuse to comply, the Report will not be approved; therefore, the data presented in the report will not be acceptable for decision-making purposes. A strict adherence to the Permit would result in revocation of the 2013 arsenic letter, among other ramifications that the Permittee has likely no considered. The Permittee must revise the Report to include the TPH-D screening level and comparison of detected TPH-D concentrations in the risk assessment.

**Army Response:** Concur. The Army will compare analytical results to the petroleum product groundwater screening levels from Table 6-4 in NMED's Risk Assessment Guidance for Site Investigations and Remediation, Volume 1 (2019). TPH-D detected results will be screened against the diesel #2/crankcase oil screening level of 16.7 ug/L. Similarly, for TPH-G, the gasoline screening level of 10.1 ug/L will be used. The text within the report will indicate where and when sampling results were greater than these screening levels.

The Army would also like NMED to note that the Army intends to complete a baseline groundwater risk assessment prior to taking any corrective action based on the screening assessment of groundwater. This baseline assessment will be part of the northern groundwater RFI and will incorporate site-specific groundwater characteristics and realistic exposure refinements, so that the risk from groundwater use will reflect the reasonably anticipated future use of groundwater at FWDA. In order to accomplish this, TPH analytical data will need to be generated that are consistent with the US EPA RSLs, which are comprised of 3 aliphatic fractions (low, medium and high) and 3 aromatic fractions (low, medium and high).

The Army will be contacting NMED in correspondence separate from this letter to propose implementing these modifications to the analyses list for the RFI and the ongoing groundwater monitoring program to address this future evaluation.

If you have questions or require further information, please call me at (505) 721-9770.

Sincerely,

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Mark Patterson BRAC Environmental Coordinator

Enclosures

### CF:

Dave Cobrain, NMED HWB Ben Wear, NMED HWB Michiya Suzuki, NMED HWB Ian Thomas, BRACD Mark Patterson, FWDA BEC Steve Smith, USACE Saqib Khan, USACE SWT Sharlene Begay-Platero, Navajo Nation Mark Harrington, Pueblo of Zuni Clayton Seoutewa, SW BIA George Padilla, Navajo BIA B.J Howerton, BIA Admin Record, OH/NM

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## **Christy Esler**

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Sent:	Tuesday, June 25, 2019 8:06 AM
To:	john.kieling@state.nm.us
Cc:	(dave.cobrain@state.nm.us); Ben Wear (benjamin.wear@state.nm.us); Michiya Suzuki; Ian Thomas (ian.m.thomas2.civ@mail.mil); Patterson, Mark C CIV (US); Steven Smith (steve.w.smith@usace.army.mil); Saqib SWF Khan (Saqib.Khan@usace.army.mil); Sharlene Begay-Platero; Mark Harrington; Clayton Seoutewa; george.padilla@bia.gov; B.J Howerton
Subject:	Final Revision 1.0, Groundwater Periodic Monitoring Report, July-Dec 2017, Response to April 16, 2019 Approval with Modifications, FWDA
Attachments:	Response_to_Comments_Approval_with_Mods_16Apr19 _Revised_July_through_December_2017_GW_PMR_Report_24June19.pdf

Mr. Kieling,

The attached letter is in reply to the New Mexico Environment Department Approval with Modifications letter dated April 16, 2019 regarding the Final Revision 1.0 Groundwater Periodic Monitoring Report, July through December 2017, Fort Wingate Depot Activity.

Please contact Mark Patterson at 505-721-9770 with any questions.

FedEx tracking number: 8146 9770 7744 (FedEx Standard Overnight)

Respectfully submitted, **Christy Esler | Program Manager** Sundance Consulting, Inc. Woman-Native American- Owned Small Business 4292 Tallmadge Rd. | Rootstown, OH 44272 330 578-3024 Office | 330 727-0042 Cell 330 358-7311 (U.S Army office/ Fort Wingate Army Depot) <u>cesler@sundance-inc.net</u> www.sundance-inc.net

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