



Michelle Lujan Grisham
Governor

Howie C. Morales
Lt. Governor

**NEW MEXICO
ENVIRONMENT DEPARTMENT**

Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6313
Phone (505) 476-6000 Fax (505) 476-6030
www.env.nm.gov



James C. Kenney
Cabinet Secretary

Jennifer J. Pruett
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

June 14, 2019

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

Steve Smith
USACE
CESWF-PER-DD
819 Taylor Street, Room 3B06
Fort Worth, TX 76102

**RE: APPROVAL WITH MODIFICATIONS
FINAL REVISION 1 PARCEL 3 GROUNDWATER RCRA FACILITY
INVESTIGATION REPORT
FORT WINGATE DEPOT ACTIVITY
MCKINLEY COUNTY, NEW MEXICO
EPA ID# NM6213820974
HWB-FWDA-18-001**

Dear Messrs. Patterson and Smith:

The New Mexico Environment Department (NMED) is in receipt of the Fort Wingate Depot Activity (Permittee) *Final Revision 1 Parcel 3 Groundwater RCRA Facility Investigation Report* (Report), dated March 31, 2019. NMED has reviewed the Report and hereby issues this Approval with Modifications. The Permittee must address the following comments.

1. Laboratory Analytical Reports

NMED Comment: The laboratory reports submitted with the Report are Level IV reports. The Permittee has previously been directed to not submit Level IV analytical laboratory reports. NMED's November 7, 2018 *Disapproval Final Permittee-Initiated Interim Measures Report Parcel 6, Revision 1* (Disapproval) states:

The Report includes Level IV reports from the analytical laboratories. This has resulted in over 18,000 pages of laboratory reports for this Report. These reports are unneeded

and cumbersome. NMED requests that only Level II analytical laboratory reports be included in all submittals. Revise the Report by removing Level IV analytical reports and including Level II analytical reports.

This is a recurring issue; failure to follow NMED direction constitutes noncompliance and may result in an enforcement action. Include Level II rather than Level IV analytical reports in future reports.

2. Sample to Analytical Laboratory Report Link

NMED Comment: The Permittee provided large quantities of data with no indication where to locate a specific sample within a specific analytical laboratory report. NMED's November 7, 2018 Disapproval states:

For every document that includes analytical data, provide a link for each specific sample to a specific lab report filename (if multiple files are provided) or to a page number in the appendix where the specific lab report can be found (if multiple lab reports are combined into one large file). For Appendices C and F, the lab reports are indexed by lab report number. The Permittee must provide a link to the lab report number for each analyte. For Appendix J, no indexing is provided and multiple laboratory reports are combined. The Permittee must either provide indexing for each report and indicate which particular report contains a particular sample, or provide specific page numbers for each sample ID that indicates where the sample can be found in the lab reports. This information can be provided either in a new table or in the analytical data electronic database.

This is a recurring issue; failure to follow NMED direction constitutes noncompliance and may result in an enforcement action.

3. Response to NMED's Disapproval Comment 1

Permittee Statement: "Taking data across 4 quarters is expected to demonstrate seasonal [groundwater] variation. Additionally, risk assessors like to have multiple rounds of data so they can demonstrate confidence in the data through statistics. It is for this reason that the Army proposed four additional rounds of data."

NMED Comment: NMED's Disapproval Comment 1 requires the Permittee to propose eight quarterly monitoring events in the Parcel 3 groundwater monitoring plan. Evaluate seasonal groundwater variation through eight rounds of data. Additionally, the Permittee may only include a discussion of risk in the final groundwater monitoring report after completing eight rounds of data collection. No response is required.

4. Response to NMED's Disapproval Comment 1

Permittee Statement: "The Army will prepare a separate simplified groundwater monitoring work plan for Parcel 3 groundwater monitoring for 8 quarterly events, upon approval of requested funding."

NMED Comment: NMED's Disapproval Comment 1 states that the Permittee must submit the first periodic monitoring report and the Parcel 3 groundwater monitoring plan by April 2, 2019. Neither submittal was received. This constitutes noncompliance. It is incumbent upon the Permittee to provide appropriate funding to meet the requirements of the FWDA RCRA Permit.

5. NMED's Disapproval Comment 1

NMED Comment: NMED's Disapproval Comment 1 states, "[t]itle the Event 2 and subsequent 2018 periodic monitoring as the Parcel 3 Groundwater Monitoring Investigation Report (Parcel 3 GMIR) with the dates of occurrence rather than as "Event 2". The title "Event 2" was used throughout the response-to-comment (RTC) letter. NMED's direction was not followed. Reference the sampling event correctly in all future submittals.

6. Response to NMED's Disapproval Comment 2

Permittee Statement: "Variances from the work plan were explained further in the revised report."

NMED Comment: The revised sections of the Report must be identified in the RTC letter. In the future, include the reference where the revision was made to the revised reports in RTC letters.

7. Response to NMED's Disapproval Comment 11

Permittee Statements: "BGMW05 is located in the vicinity of TSB02 which was drilled prior to drilling and installing BGMW05."

and,

"BGMW05 was believed, at the time of installation, to have captured the targeted formation based on identified depths and lithologies similar to the TSB02 cores, targeting sandstone."

NMED Comment: The geological data collected from boring TSB02 was used as criteria for the installation of well BGMW05. However, well BGMW05 was installed more than 2,500 feet southeast of boring TSB02. Boring TSB02 is located too far from well BGMW05 to be a reliable point of reference; therefore, the data collected from boring TSB02 are not likely applicable to make any decisions regarding the installation of well BGMW05 (e.g., termination depth). It appears that the presence of groundwater in Parcel 3 likely depends on the distance from an arroyo rather than a particular geologic unit of lithology. Figure 2-10, *Geologic Cross Section Transect Location Map*, indicates that an arroyo is present approximately 1,500 feet east of well BGMW05 and the arroyo appears to be accessible from

an unnamed road extending eastward from AOC 91. Evaluate accessibility in the vicinity of the arroyo and, if found accessible, submit a work plan to install a background monitoring well in the vicinity of the arroyo.

8. Response to NMED's Disapproval Comment 13

Permittee Statement: "This data [collected from groundwater monitoring for eight quarterly events] will be utilized to determine if seasonal rainfall affects groundwater levels in Parcel 3."

NMED Comment: NMED's Disapproval Comment 13 states, "[i]f groundwater samples can be collected from "dry" monitoring wells during periods of increased rainfall (e.g., monsoon season), groundwater monitoring and sampling must be conducted at that time." The New Mexico monsoon season is designated from June 15th through September 30th. To clarify, if the date of a sampling event coincides with the timeframe, additional sampling will not be necessary. The sampling events during monsoon season must be conducted within one week of significant rain event(s) to determine if rainfall affects groundwater levels. In future groundwater monitoring reports, include the date(s) when rainfall is recorded prior to the groundwater monitoring event and the amount of precipitation recorded during the rain event(s).

9. Response to NMED's Disapproval Comment 14

Permittee Statements: "The Army agrees to explore alternate locations to install background monitoring wells; however, it is highly possible to not find an accessible location that will also provide representative groundwater. The Army suggests several alternative locations be proposed to allow flexibility to achieve an accessible location that does produce groundwater."
and,

"The accessible areas upgradient, or south, of well CMW02 had borings advanced with no success in finding groundwater. CMW32 was set as a permanent well and remains dry. BGMW04 was drilled below the targeted formation into the Blue Mesa member, as the Painted Desert formation crop out. The Blue Mesa member is a very low apparent permeability mudstone. The area in Parcel 3 is highly undeveloped with high relief terrain making access very limited."

NMED Comment: Groundwater production is unlikely in areas distant from arroyos; therefore, wells must be installed in the proximity of arroyos. If arroyos extend outside the Parcel 3 boundary, background groundwater monitoring wells may be installed outside the Parcel 3 boundary, upgradient of the affected area (e.g., Parcel 1). Potentially suitable areas may be more accessible from Parcel 1 (e.g., via Woodland road). In addition, track-mounted drill rigs are commercially available. Such drill rigs will improve accessibility. Evaluate potential areas for background wells outside Parcel 3 and provide a discussion in the response letter.

10. Response to NMED's Disapproval Comment 14

Permittee Statements: "The Army requests to collect additional data at CMW02 and BGMW06, if and when water is present, to generate additional data to determine if constituent detections were anomalous or representative of contamination. As mentioned in Section 3.11.4.3 Uncertainty Discussion, the detections of explosives and VOCs were estimated and potentially biased high."

and,

"The Army proposes the use of passive sampling, which would best facilitate the sampling in the area and allow low yield, slow recharge locations to be sampled."

NMED Comment: Evaluate whether or not the constituent detections were anomalous or representative of contamination in these wells in future reports. In addition, data acquired through the use of passive sampling devices must be correlated with analytical laboratory data for samples collected from the wells using previous sampling methods at the time of passive sample collection for at least three events to evaluate compatibility.

11. Response to NMED's Disapproval Comment 19

Permittee Statements: "Analytical data for existing well CMW22 was removed as it was deemed out of scope of the work plan and performed during "Event 2". The Army will present the analytical data in the next Parcel 3 monitoring report."

and,

"The ink marker is also mentioned in Section ES.4 Recommendations; 5.5.2.2 Vapor Intrusion Pathway; Section 6.3.2 Groundwater East of the Hogback; and Section 6.5 Recommendations."

NMED Comment: The former statement indicates that the data for well CMW22 was removed from the Report, but the latter statement indicates that the discussion regarding the incident that references the ink marker and CMW22 was included in the Report. The analytical data must be provided when the incident is discussed. The discussion must be presented along with the analytical data in the subsequent Parcel 3 groundwater monitoring report.

12. Response to NMED's Disapproval Comment 21

Permittee Statement: "The Army proposes to not include BGMW06 and CMW02 within this human health risk screening as the data is limited to one sampling event."

NMED Comment: Conduct the risk evaluation upon completion of eight rounds of sampling in the final groundwater monitoring report (see Comment 3). No response is required.

13. Response to NMED's Disapproval Comment 27

Permittee Statement: "As an alternative to local background wells in Parcel 3, Army proposes using background concentrations from wells screened in the same lithologic formations in northern area background wells."

NMED Comment: It is appropriate to conduct a background study within or upgradient of the Parcel 3 boundary to evaluate the background groundwater conditions in Parcel 3. The groundwater conditions in northern area may be fundamentally different from that of Parcel 3 even if groundwater is collected from the same lithologic formations. The occurrence of groundwater in Parcel 3 may be dictated by hydraulic connections related to arroyos. This may not be the case in northern area. Therefore, the data collected from northern area are not appropriate for use to evaluate background groundwater conditions in Parcel 3.

14. Response to NMED's Disapproval Comment 28

Permittee Statement: "Well CMW18 has since been abandoned due to current source removal activities being performed within Parcel 3. The well will be replaced at a later date once operations are clear of the area."

NMED Comment: Provide information regarding the date of the abandonment. NMED provided a direction not to abandon the well in the *Disapproval Final Parcel 3 Groundwater RCRA Facility Investigation Report*, dated October 17, 2018. Comment 28 states that wells CMW18 and CMW04 are essential to the groundwater monitoring program at the site and must not be abandoned or, if abandoned, must be replaced. The Permittee must propose to install a replacement well for CMW18 in a location outside of the HWMU operations. Submit a work plan to install a replacement well for well CMW18.

15. Response to NMED's Disapproval Comment 35

Permittee Statement: "to follow NMEDs direction as stated by Mr. Wear "[t]he purpose of the RFI report is to provide information on the advancement of borings, geophysics, and the installation, development, and first round of sampling of the new wells. Further monitoring will be reported in future periodic monitoring reports.""

NMED Comment: The same quotation appears 22 times in the RTC letter. It is redundant. Reference the quotation for simplicity. No response is necessary.

16. Response to NMED's Disapproval Comment 36

Permittee Statement: "The instrument will flash "0.0" when readings are out of range. The notes were recorded because field readings were out of range and visual observations were deemed important information. The data sheets are a record of field documentation and cannot be altered."

NMED Comment: “0.0 NTU” is misleading without an explanation. When the instrument flashes “0.0”, indicate that the readings are out of range in the data sheets. This comment applies to the presentation of all future field data sheets.

17. Response to NMED’s Disapproval Comment 38

Permittee Statement: “Well 69 samples will be collected during the April 2019 sampling event and will be submitted with the January to June 2019 Periodic Monitoring Report.”

NMED Comment: The analytical results for the groundwater samples collected from well 69 during Event 2 must also be submitted to NMED no later than **July 12, 2019**.

18. Table 4-4, Groundwater Analytical Detections and Risk Screening – VOCs

NMED Comment: 2-butanone (MEK) and acetone were detected in the groundwater samples collected from wells CMW28B and CMW33B according to the laboratory analytical report included in Appendix E, *Laboratory and Data Validation Documents*. However, these constituents are not listed in Table 4-4. Include all detections in applicable tables in future reports. No revision is required.

19. Appendix E, Laboratory and Data Validation Documents, Data Quality Assessment Report, Section 4.0, Perchlorate

Permittee Statement: “All VOC data were assessed to be valid since none of the 14 total results were rejected due to holding time or QC exceedances.”

NMED Comment: This section is titled to provide a discussion for perchlorate analytical results. However, the Permittee discusses validity of VOC data. Resolve the discrepancy in the future reports and provide an explanation for the discrepancy in the response letter.

The Permittee must address all comments in this Approval with Modifications and submit a response letter no later than **August 23, 2019**. The work plan required by Comments 7 and 14 must be submitted no later than **December 31, 2019**. The analytical results for well 69 required by Comment 17 must be submitted no later than **July 12, 2019**.

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.

Messrs. Patterson and Smith
June 14, 2019
Page 8

Should you have any questions, please contact Michiya Suzuki of my staff at (505) 476-6059.

Sincerely,



John E. Kieling
Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
B. Wear, NMED HWB
M. Suzuki, NMED HWB
C. Hendrickson, EPA Region 6 (6LCRRC)
L. Rodgers, Navajo Nation
S. Begay-Platero, Navajo Nation
M. Harrington, Pueblo of Zuni
C. Seoutewa, Southwest Region BIA
G. Padilla, Navajo BIA
J. Wilson, BIA
B. Howerton, BIA
R. White, BIA
C. Esler, Sundance Consulting, Inc.

File: FWDA 2019 and Reading, Parcel 3