

DEPARTMENT OF ENERGY
Environmental Management Los Alamos Field Office (EM-LA)
Los Alamos, New Mexico 87544

EMLA-24-077-4-1

Date: December 5, 2023

Mr. John Rhoderick and Mr. Rick Shean
New Mexico Environment Department
1190 St. Francis Drive, Suite N4050
Santa Fe, NM 87505

Subject: Response to New Mexico Environment Department September 6, 2023, Letter,
“Corrective action under DP-1835 associated with the chromium plume”

Dear Messrs. Rhoderick and Shean:

This letter responds to your correspondence from September 6, 2023 regarding the chromium plume.

In March 2023, the Department of Energy (DOE) Office of Environmental Management Los Alamos Field Office (EM-LA) halted operation of the Chromium Plume Control Interim Measure (IM) to comply with the New Mexico Environment Department (NMED) regulatory direction to cease injection. The primary objective of the IM is to prevent migration of the plume beyond the Laboratory boundary.¹ Since the shutdown, significantly higher chromium concentrations have been measured in three groundwater wells and four of the five extraction wells, where previous operation of the IM had significantly decreased chromium concentrations (See Figures 1, 2, and 3 of the enclosure).

EM-LA has a shared responsibility to protect public health and the environment, and EM-LA is also concerned that extended shutdown of the IM is not protective of the regional aquifer.

EM-LA has reviewed NMED’s offer to temporarily resume operation of the IM. Although EM-LA has an urgent need to resume operation of the IM, based on its technical evaluation and analysis, EM-LA does not agree with the conditions stated in Appendix A of NMED’s letter of September 6, 2023.

DOE has access through DOE’s National Laboratories to premier scientists with expertise in characterization and cleanup of groundwater contaminants. As discussed with NMED on October 30, 2023, EM-LA has retained the Savannah River National Laboratory (and affiliated universities and National Laboratories) to perform a technical review of the scientific assumptions for operation of the IM. The experts and their approach will be vetted by both NMED and EM-LA. After completing their review, these experts will share their conclusions with EM-LA and NMED to resolve the differing technical positions. As part of the scope for this expert review, EM-LA proposes to include: (1) Attachment A actions proposed by NMED in its letter of September 6; (2) whether plume characterization is sufficient for submission of a

¹ 2016 Compliance Order on Consent, Appendix C, Chromium Interim Measures and Characterization Campaign.

Corrective Measures Evaluation Report and remedy selection; and (3) guidance agreed upon by both NMED and EM-LA for the experts to perform the independent technical review.

Prolonged shutdown of the IM (or substantive IM operational changes) poses potential contamination risk to the regional aquifer under the Pueblo de San Ildefonso. Therefore, we also propose offering the Pueblo de San Ildefonso the opportunity to participate in the follow-on technical discussions after the technical review.

Finally, considering the gravity and environmental impacts of prolonged system shutdown, there is an urgent need to resume operation of the IM. Therefore, EM-LA requests approval to resume partial operation of the IM during the expert review and technical discussions, which would include use of injection wells CrIN-2, CrIN-3, CrIN-4, and CrIN-5. This will enable actions to prevent migration of the plume beyond the Laboratory boundary by injecting treated water through wells located outside the plume boundary.

I look forward to our continued collaboration on this important environmental challenge. If you have any questions, please contact Ms. Cheryl Rodriguez at (505) 414-0450 or cheryl.rodriguez@em.doe.gov.

Sincerely,

Michael A.
Mikolanis

Digitally signed by
Michael A. Mikolanis
Date: 2023.12.05
16:56:29 -07'00'

Mr. Michael Mikolanis, Manager
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Environmental Management
Los Alamos Field Office

Enclosure:

Figure 1. *Chromium Concentration Trends in Chromium Plume Control Interim Measures Extraction Wells through September 2023*

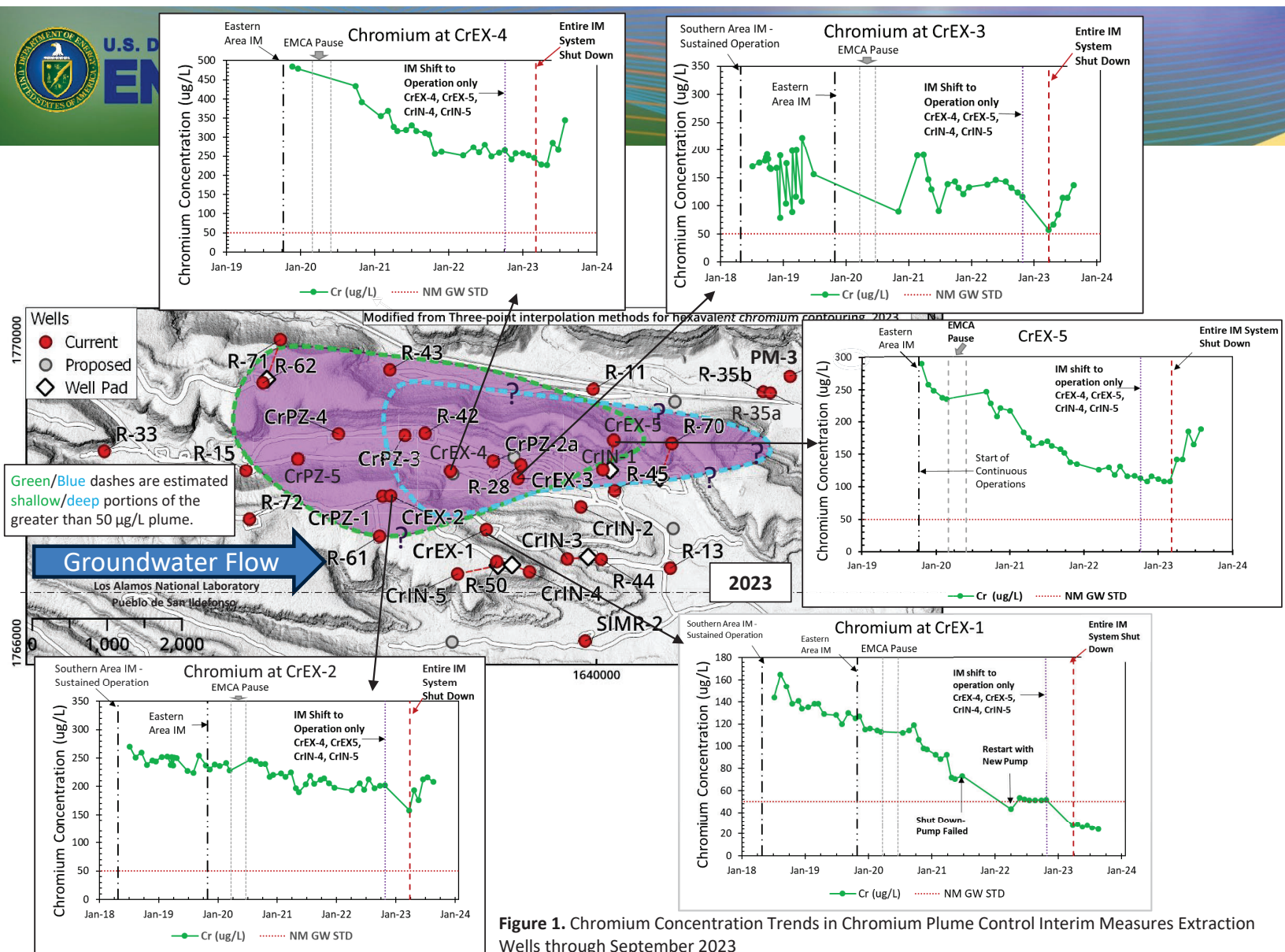
Figure 2. *Chromium Concentration Trends in Chromium Plume Control Interim Measures Extraction Well CrEX-5 and Groundwater Monitoring Wells R-70 Screen 1 (S1) and S2 and R-45 S2 through September and October 2023*

Figure 3. *Chromium Concentration Trends in Chromium Plume Control Interim Measures Extraction Well CrEX-2 and Groundwater Monitoring Well R-61 S1 through September 2023*

cc:

Rep. Joanne J. Ferrary
Sen. Jeff Steinborn
Rep. Eliseo Lee Alcon
Rep. Cathrynn N. Brown
Rep. Christine Chandler
Sen. David M. Gallegos
Rep. Stefani Lord

Sen. Brenda G. McKenna
Sen. Shannon D. Pinto
Sen. Nancy Rodriguez
Sen. Joshua A. Sanchez
Rep. Debra M. Sarinana
Rep. John Block
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L. King, US EPA R6
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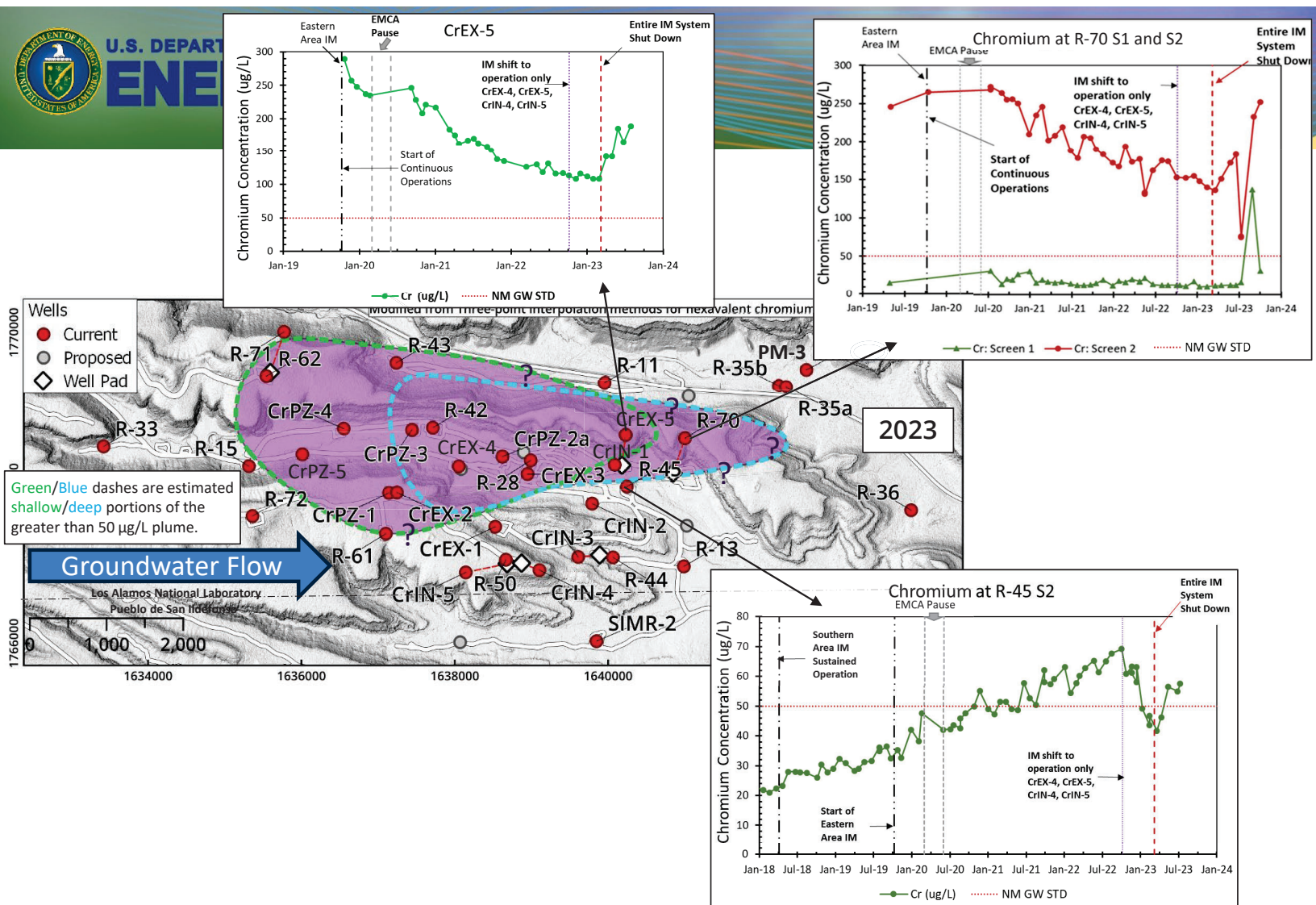


Figure 2. Chromium Concentration Trends in Chromium Plume Control Interim Measures Extraction Well CrEX-5 and Groundwater Monitoring Wells R-70 Screen 1 (S1) and S2 and R-45 S2 through September and October 2023

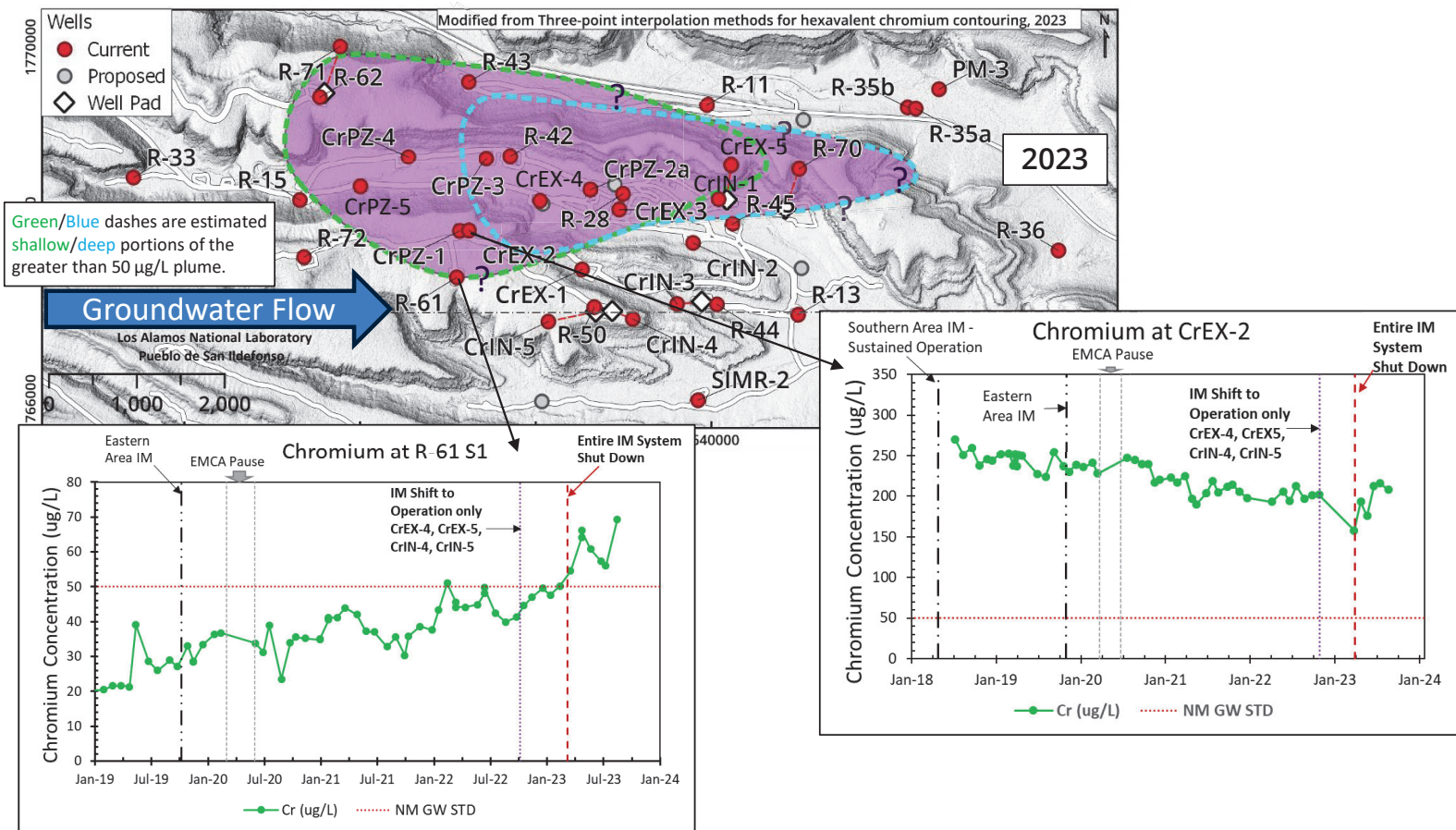


Figure 3. Chromium Concentration Trends in Chromium Plume Control Interim Measures Extraction Well CrEX-2 and Groundwater Monitoring Well R-61 S1 through September 2023