**From:** Cushman, George H IV CIV USARMY HQDA DCS G-9 (USA)
**To:** Wear, Benjamin, ENV
**Cc:** Christy Esler; Angela Makin; Cobrain, Dave, ENV; Suzuki, Michiya, ENV
**Subject:** RE: Limit of Detection/Limit of Quantitation Submission
**Date:** Monday, April 24, 2023 5:01:24 PM



Ben: The FWDA Team got together and discussed your thoughts below. We understand NMED's position on the LOQ issue, even though the Army has been unable to meet NMED's requirements at this time. On April 25, 2023 (tomorrow), the Army will be submitting a letter to NMED that includes a proposed schedule for submitting outstanding documents at FWDA. The letter includes a proposed resolution of the LOQ issue. Please review the information in the April 25, 2023 letter and then please consider the Army's request to discuss the issue further with NMED.

Thank you!

v/r,

George

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**From:** Cushman, George H IV CIV USARMY HQDA DCS G-9 (USA)
**Sent:** Monday, April 24, 2023 1:09 PM
**To:** 'Wear, Benjamin, ENV' <Benjamin.Wear@env.nm.gov>
**Cc:** Christy Esler <cesler@sundance-inc.net>; Angela Makin <amakin@sundance-inc.net>
**Subject:** RE: Limit of Detection/Limit of Quantitation Submission

Ben: Thank you for your quick reply. Please let me discuss your concerns with the Team and I shall get back to you. Hope you are doing well.

v/r,

George

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**From:** Wear, Benjamin, ENV <Benjamin.Wear@env.nm.gov>
**Sent:** Monday, April 24, 2023 12:25 PM
**To:** Cushman, George H IV CIV USARMY HQDA DCS G-9 (USA) <george.h.cushman.civ@army.mil>
**Cc:** Christy Esler <cesler@sundance-inc.net>; Angela Makin <amakin@sundance-inc.net>; Cobrain, Dave, ENV <dave.cobrain@env.nm.gov>
**Subject:** [Non-DoD Source] RE: [EXTERNAL] RE: Limit of Detection/Limit of Quantitation Submission

George,

Based on Attachment 2 that was included with your 12/22/21 email, there are only seven

compounds listed where no DOE-ELAP laboratory who responded could provide an LOD/LOQ lower than the SL. As we previously discussed, if the compound is a COC and an analytical laboratory can provide an analysis with an LOD less than the SL, then FWDA must use that analytical laboratory for that compound. Therefore, NMED is unclear regarding your statement that, "[t]he compounds in your email are the 10 analyte categories that have LOQ performance concerns, each of which includes many individual analytes."

NMED has not had an opportunity to review your December 2022 submission. But based on a quick scan, it does not appear that the seven individual compounds from Attachment 2 noted above were specifically addressed by the analytical laboratories regarding alternative methods. In addition, NMED does not accept frequency of detection analysis as a line of evidence, especially for compounds whose LODs are greater than the SL; those non-detects are not non-detects at the SL, are considered data quality exceptions, and cannot be used for any decision-making purposes.

Also, lines of evidence evaluations are specific to each individual investigation, are appropriate only for those COCs for which no analytical laboratory can provide an LOD below the SL, and must be presented in the individual investigation reports. If the Permittee collects eight sampling events of data that all indicate the compound is non-detect at or below the SL and there are no continuing potential contamination sources in the area, then the Permittee may petition to remove that compound from future analyses.

Based on the above, submittal of the massive amount of information you referred to does not seem appropriate at this time. NMED also wants to remind the Permittee that any reports that have not been previously approved by NMED included as attachments or appendices to a submitted report will require a separate review fee per NMED's Fee Regulations.

Thanks,

**Ben Wear**
**Water Resource Specialist**
**Hazardous Waste Bureau**
**New Mexico Environment Department**
**2905 Rodeo Park Drive East, Building 1**
**Santa Fe, NM 87505-6313**
**(505) 690-6662**

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**From:** Cushman, George H IV CIV USARMY HQDA DCS G-9 (USA) <george.h.cushman.civ@army.mil>
**Sent:** Monday, April 24, 2023 9:14 AM
**To:** Wear, Benjamin, ENV <Benjamin.Wear@env.nm.gov>
**Cc:** Christy Esler <cesler@sundance-inc.net>; Angela Makin <amakin@sundance-inc.net>
**Subject:** [EXTERNAL] RE: Limit of Detection/Limit of Quantitation Submission



Ben: Thank you for your e-mail last Friday concerning the data we will be providing you

concerning results of our Phase 3 of the Limit of Detection/Limit of Quantitation (LOD/LOQ) effort to address NMED's analytical performance concerns. I apologize for not getting back to you on Friday, but I had already departed town to attend my Mother's memorial service.

This Phase 3 submission follows the Phase 1 and 2 submittals where the Army provided information on analytical capabilities as reported through inquiries with DoD-ELAP certified laboratories. For analytes where LOQ remained above the SL from Phases 1 and 2, Phase 3 continued with a lines of evidence (LOE) evaluation to assess whether the analyte(s) is/are unlikely to be found at FWDA, and whether to retain as a COC. The compounds in your email are the 10 analyte categories that have LOQ performance concerns, each of which includes many individual analytes. That's one of the reasons the Phase 3 submittal is large.

The PDF submittals have detailed bookmarks by written section, by analytical category and within each analytical category for ease of searching for material. I am attaching a copy of our 28 December 2022 correspondence for reference.

I hope this explanation helps – if you have any further questions, please do not hesitate to contact me.

v/r,

George

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**From:** Wear, Benjamin, ENV <Benjamin.Wear@env.nm.gov>
**Sent:** Friday, April 21, 2023 2:54 PM
**To:** Cushman, George H IV CIV USARMY HQDA DCS G-9 (USA) <george.h.cushman.civ@army.mil>
**Cc:** Christy Esler <cesler@sundance-inc.net>; Angela Makin <amakin@sundance-inc.net>; Cobrain, Dave, ENV <dave.cobrain@env.nm.gov>
**Subject:** [Non-DoD Source] RE: [EXTERNAL] Limit of Detection/Limit of Quantitation Submission

Hi George,

From previous review of the information you provided regarding the COCs for which analytical laboratories could not provide a LOD that meets the SL, there were less than 10 compounds. We are a bit confused regarding the 2365 pages of information. Can you provide a description of what you are submitting?

Thanks,

**Ben Wear**
**Water Resource Specialist**
**Hazardous Waste Bureau**
**New Mexico Environment Department**
**2905 Rodeo Park Drive East, Building 1**
**Santa Fe, NM 87505-6313**
**(505) 690-6662**

**From:** Cushman, George H IV CIV USARMY HQDA DCS G-9 (USA) <george.h.cushman.civ@army.mil>
**Sent:** Thursday, April 20, 2023 2:51 PM
**To:** Wear, Benjamin, ENV <Benjamin.Wear@env.nm.gov>
**Cc:** Christy Esler <cesler@sundance-inc.net>; Angela Makin <amakin@sundance-inc.net>
**Subject:** [EXTERNAL] Limit of Detection/Limit of Quantitation Submission



Ben: I hope this e-mail finds you doing well and in good health. I am writing to inform you that we will soon be sending NMED the results of Phase 3 of the Limit of Detection/Limit of Quantitation (LOD/LOQ) effort to address NMED's analytical performance concerns at Fort Wingate Depot Activity. The submission will be sent both electronically and in hard copy through FEDEX. A question I would like to pose to you is whether you would like to receive the two enclosures to the letter in hard copy also. Enclosure 1, Phase 3 LOD/LOQ Text and Tables Lines-of-Evidence Evaluation is 166 pages (3mb). Enclosure 2, Phase 3 LOD/LOQ Appendix 1-10, Lines-of-Evidence Evaluation and Supporting Information, is 2,365 pages (24mb). Please let me know if you would like hard copies of the enclosures, and I shall have them printed out and sent along with the hard copy letter.

Thank you,

v/r,

George