



REGION 5
CHICAGO, IL 60604

July 10, 2024

Via Electronic Mail Only

Ms. Christopher Vandegrift (vandegriftcj@cdmsmith.com)
Senior Project Manager
CDM Smith
One Allegheny Square, Suite 200
Pittsburgh, PA 15212

RE: Operable Unit 2 Groundwater Technical Memorandum – Year 1
McLouth Steel Corporation Superfund Site – MID017422304 / A557
1491 West Jefferson Avenue, Trenton, Wayne County, Michigan

Dear Mr. Vandegrift:

The *Operable Unit 2 Groundwater Technical Memorandum – Year 1* (OU2 Tech Memo), prepared by CDM Smith (CDM) on behalf of the United States Environmental Protection Agency (EPA), presents the results of the groundwater investigation performed in 2023 at the McLouth Steel Corp Superfund Site (Site). This project was a part of the EPA Design and Engineering Services (DES) Contract No. 68HE0318D0003, Task Order No. 68HE0523F0033. EPA, in collaboration with Michigan Department of Environment, Great Lakes, and Energy (EGLE), has completed its review of the OU2 Tech Memo. This review letter includes comments from EPA and comments from EGLE are provided as an enclosure to this letter. The comments must be addressed in the Year Two OU2 investigations and/or the pending Year 2 technical memoranda or in the Remedial Investigation Report.

Comments cite the page, section, and paragraph where an issue or question was noted. “First Paragraph” refers to the first complete paragraph on a cited page; partial paragraphs carrying over from a previous page are referenced as “Paragraph 0” where applicable.

Comments

1. **Pages 1 and 2, Site Background:** Citations to references should be provided for the summary information provided in Site Background and Physical Setting.
2. **Page 1, Site Background, First Paragraph:** The acronym “EGLE” should be added in parentheses after “Michigan Department of Environment, Great Lakes, and Energy” since this is the common term used to reference the agency.

3. **Page 1, Site Background, Second Paragraph:** The OU2 Tech Memo should say “Crown Enterprises, “Inc” rather than and “Crown Enterprises, LLC.”
4. **Page 2, Site Background, First Paragraph:** The OU2 Tech Memo should say “MSC Land Company LLC” rather than “MSC, Ltd.”
5. **Page 2, Site Background, First Paragraph:** The last sentence of the paragraph indicates that MSC completed the activities in November 2023. These actions were completed in November 2021, not 2023. This must be corrected.
6. **Page 4, Groundwater Sample Analysis:** The OU2 Tech Memo states that EPA Region 5 Analytical Services Branch (ASB) analyzed the groundwater samples for per- and polyfluoroalkyl substances (PFAS). Region 5 and Region 3 laboratories analyzed groundwater samples for PFAS. This must be corrected.
7. **Page 5, Data Validation:** The paragraph indicates that the data validation reports for dioxins/furans (D/F) and reactive sulfide and a portion of the PFAS results were not available as the technical memorandum was being prepared. A statement should have been included that the pending D/F, reactive sulfide, and PFAS data validation reports will be evaluated to ensure acceptability of the data and discussed in the Year 2 technical memoranda or in the Remedial Investigation Report.
8. **Page 5, Data Validation:** The section indicates that some analytical results were rejected, thus unusable, due to inadequate preservation and analysis outside of technical holding time, but that “limited number” is not considered a significant limitation of the usefulness of the OU2 data set in supporting the data quality and project objectives. It would be useful to indicate the number of samples that were rejected out of the number of samples submitted for analysis.
9. **Page 6, Operable Unit 2 Groundwater Investigation Sampling Results, Second Paragraph:** The second sentence is confusing and/or there is a typographical error – metals is noted twice.
10. **Page 6, Operable Unit 2 Groundwater Investigation Sampling Results, Table 2 – Groundwater Sample Detections and Exceedances Summary:** Polychlorinated biphenyls and pesticides should have been included in Table 2.
11. **Pages 6-8, Tables 2 through 6, Groundwater Sample Detections and Exceedances tables:** There were a number of compounds (i.e. vinyl chloride, 2,4-dimethylphenol,...) that exceeded their project action levels (PALs) but were not included in the summary tables. Compounds detected above PALs should be included in the “Detections and Exceedances tables” and represented on site figures in order understand contaminant distribution.
12. **Page 7, Per- and Polyfluoroalkyl Substances, Table 5 Groundwater Sample Detections and Exceedances – Per- and Polyfluoroalkyl Substances:** The OU2 Tech memo states that perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) were the two primary PFAS compounds detected in groundwater and that their detections and relative

concentrations were essentially co-located. PFOS is the only PFAS compound listed in “Table 5 – Groundwater Sample Detections and Exceedances – Per-and Polyfluoroalkyl Substances” and the only PFAS compound presented in a site figure (Figure 11). The detections of PFOS and PFOA do not completely overlap. PFOA was detected in monitoring wells MW-N140S (36 nanograms per liter [ng/L]) and RI-MW-11 (129 ng/L) above the maximum contaminant level (MCL) of 4 ng/L, while PFOS was not detected above the laboratory detection limit in these wells. All PFAS compounds detected above the PALs should have been included in Table 5a and represented on site figures in order understand contaminant distribution.

13. **Page 9, Field Parameter Measurement Results, First Paragraph:** The OU2 Tech Memo indicates that the highest pH (13.21) was noted in the northern portion of the site in monitoring well RI-MW-22. Table 1b Groundwater Field Parameter Measurement Results and Figure 19 Groundwater Results – pH, both indicate that the pH of groundwater in monitoring well RI-MW-22 was observed to be 13.31.
14. **Page 9, Findings – Distribution Relative to Former Site Features, First Paragraph:** The OU2 Tech Memo indicates that three volatile organic compounds (VOC) and semivolatile organic compounds (SVOCs) exceedances occurred downgradient of “the former drum storage area.” The former drum storage area is not marked on Figure 2 Site Layout Map. Known former site operation features should be included on Figure 2.
15. **Page 9, Findings – Distribution Relative to Former Site Features, Table 7 – Groundwater Sample Detections and Exceedances – Distribution Relative to Former Site Features:** The table presents the groundwater sample detections and exceedances distribution relative to former Site features. A figure showing the sample locations with relation to former Site features would assist with evaluating the findings. This would essentially be the existing Figure 2 with sample locations added.
16. **Page 10, Updated Conceptual Site Model, Data Needs, and Recommendations, Second Paragraph:** The OU2 Tech Memo indicates that additional soil borings will be proposed to evaluate the eight areas included in the bullets. Not all of the analytes detected above PALs were noted at each of these eight areas. For example, volatile organic compounds (VOCs; particularly tetrachloroethylene) was detected at RI-SB-16; polychlorinated biphenyls, semi-volatile organic compounds, and dioxin were also detected in boring RI-SB-23; VOCs and dioxin were also detected in boring RI-SB-25. Additional parameters than those listed in the bullets may be necessary to understand the full scope of the contamination.
17. **Page 11, Operable Units 1 and 2 Year 2 Scope of Work, Second Paragraph:** The OU2 Tech Memo indicates that half of the soil and groundwater samples will be analyzed for PFAS. A review of “Table G – PFAS Detection Results” for soil samples in the OU1 Tech Memo against the “Table E – PFAS Detection Results” for groundwater samples in the OU2 Tech Memo indicates that the following three PFAS detected above the PAL in groundwater were not analyzed for in soil samples: Perfluorooctanesulfonic acid (PFOS; CAS Number 1763-23-1), Perfluorooctanoic acid (PFOA; CAS Number 335-67-1), Perfluorohexanesulfonic acid (PFHxS; CAS Number 355-46-4). The PFAS analytes for soil samples included in “Table G – PFAS Detection Results” included in the OU1 Tech Memo do not align with the analytes included in

“QAPP Worksheet #15I: Soil Screening Criteria – PFAS.” Future sampling must align with the scope outlined in the project Quality Assurance Project Plan (QAPP) to ensure that work performed will satisfy the site-specific data quality objectives. Given the prevalence of PFAS detected and the elevated detection limit in Year 1, it is recommended that all Year 2 soil and groundwater samples be analyzed for PFAS.

In addition to the PFAS analyte name and CAS Number, please include the associated abbreviations in future Tech Memos, QAPP updates, and the Remedial Investigation Report.

18. **Page 11, Operable Units 1 and 2 Year 2 Scope of Work, First Paragraph:** The OU2 Tech Memo states that based on the evaluation of the combination of Year 1 OU1 and OU2 results, CDM Smith developed a proposed plan for Year 2 field work. The plan includes 16 locations for soil borings and single monitoring well construction, 4 well cluster locations along the Trenton Channel shoreline and 11 locations for soil sampling only. Figure 20 presents the proposed soil boring and monitoring well locations. Table 10 in Attachment D presents the additional characterization rationale. The proposed locations look acceptable given they align with the contaminant distribution identified in during historical sampling events and Year 1 investigations. As noted above and in the Year 1 Tech Memo review letter, not all data was presented in figures that include applicable screening criteria. Future reports must include figures that present the results of sampling and analysis in a readily understandable fashion compared to applicable screening criteria.
19. **Page 11, Operable Units 1 and 2 Year 2 Scope of Work, Second Paragraph:** The OU2 Tech Memo indicates that the Year 2 sampling will be performed in accordance with the QAPP (CDM Smith 2023). Consistent with Section 1.2.3 of the DES Statement of Work (SOW), an annual QAPP update should be conducted due to the information collected as part of the Task Order Year 1 sampling event. The update should also include updated PALs (i.e. PFAS MCLs and RSLs).
20. **Figures 6 through 18:** A legend for the laboratory analytical acronyms (i.e. qualifiers) needs to be included on each figure.
21. **Figures 4 and 6 through 19:** Some of the eastern perimeter monitoring wells (MW-N119, RI-MW-35, MW-N115, MW-N112S, and RI-MW-30) appear to be either on the edge of or off the map, thus appearing to be located in the Trenton Channel. The angle of the map should be adjusted so that monitoring wells are shown to be located on the property.
22. **Figure 10 Groundwater Results – Pentachlorophenol:** The colors in the legend do not match the figure – the legend has standard blue for non-detect (ND), but it is light blue/grey on the figure. This must be corrected.
23. **Figure 11 Groundwater Results – PFOS:** Only PFOS concentrations are shown on the figure. It is recommended that PFOA concentrations be added to this figure or that a separate PFOA figure be included in the OU2 Tech Memo. As noted in Comment No. 12 above, the PFOS and PFOA detections do not complete overlap, as PFOA was detected in monitoring wells MW-140S and RI-MW-11 at concentrations near or over ten times the PALs but PFOS were not detected in these wells. Figures with analytical data provide a time-efficient method of determining

contaminant distribution.

24. **Figure 11 Groundwater Results – PFOS:** Different colors were used in the legend to represent the scale of PAL exceedances than other figures in the OU2 Tech Memo. The colors should be used consistently for ease of interpretation.
25. **Figure 19 Groundwater Results – pH:** The legend incorrectly indicates that red symbolizes a pH greater than 4.5. It appears that red represents a pH greater than 11.5. The legend for the figure must be corrected.
26. **Attachment A, Field Documentation:** The well construction log for monitoring well RI-MW-20 is not included in the OU2 Tech Memo. The well construction log for all newly install monitoring wells must be included in the OU2 Tech Memo and the pending Remedial Investigation Report.
27. **Table E PFAS Detection Results:** In addition to the PFAS analyte name and CAS Number, please include the associated abbreviations in future Tech Memos, QAPP updates, and the Remedial Investigation Report.

The above comments must be addressed in the Year Two OU2 investigations and/or the pending Year 2 technical memoranda or in the Remedial Investigation Report. If you have questions or require assistance, please contact me at (312) 353-6713 or green.nilia@epa.gov.

Sincerely,

Nilia Moberly Green
Remedial Project Manager
Superfund & Emergency Management Division

Cc (via email only):

Megan Cynar, Michigan EGLE (cynarm@michigan.gov)

Steven Kaiser, EPA Region 5 (kaiser.steven@epa.gov)

Gregory Gehrig, EPA Region 5 (gehrig.greg@epa.gov)

Lance Haman, EPA Region 5 (haman.lance@epa.gov)



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

LANSING



PHILLIP D. ROOS
DIRECTOR

June 20, 2024

VIA EMAIL

Nilia Moberly Green
Remedial Project Manager
United States Environmental Protection Agency, Region 5
Superfund & Emergency Management Division
77 West Jackson Boulevard, (SR-6J)
Chicago, Illinois 60604-3507

Dear Nilia Moberly Green:

SUBJECT: The Michigan Department of Environment, Great Lakes, and Energy (EGLE) Comments on the Operable Unit (OU) 2 Groundwater Technical Memorandum Year 1; McLouth Steel Corp Site (Superfund Site).

EGLE staff have completed their review of the OU2 Groundwater Technical Memorandum (Tech Memo), sent by the United States Environmental Protection Agency on May 20, 2024. This comment letter includes comments from the EGLE Project Manager below and comments from the EGLE Technical Support Unit geologist are provided as an attachment to this letter.

Specific Comments


1. Site Background, Second Paragraph. The Tech Memo states, "In 2000, DSC, Ltd. sold the 76-acre northern portion of the facility to Manuel J. Maroun, who transferred the title through Crown Enterprises, LLC to Riverview-Trenton Railroad Co." EGLE suggests that parentheses be add as (RTRR Site) after "facility", please make it clear that this portion is not part of the Superfund Site.
2. Site Background, Third Paragraph. It is not clear in this paragraph whether these activities took place on the Superfund Site or the RTRR Site or both. Please clarify where these activities occurred?
3. Site Background, Fourth Paragraph, last two sentences. It is not clear if the inorganics, volatile organic compounds, semi-volatile organic compounds, polychlorinated biphenyl, dioxins/furans, and per- and polyfluoroalkyl substances (PFAS) were identified on both sites. With the concerns with pooling water adjacent to the RTRR Site with elevated measure of the alkalinity or acidity of solution (pH) water, the Tech Memo should be clear if this is also a concern on the Superfund Site. Please specify where each compound was found to better describe what contaminants are present on the Superfund Site.

4. Synoptic Water Level Measurement, third sentence identifies the highest water level elevation at RI-MW-13; however, Table 1a and Figure 5 indicate that the highest water level elevation is at RI-MW-39.
5. Groundwater Sampling, Second Paragraph, third sentence states, "In all, 277 groundwater field samples, 33 duplicate samples, 44 equipment blanks, 2 field blanks, 10 trip blanks, and 20 waste characterization were collected for analysis"; however, in the paragraph before this it is stated that "32 samples were collected from new monitoring wells and 14 samples were collected from existing monitoring wells". Please clarify if the number of samples was 46 or 277.
6. Groundwater Sample Analysis. It is stated that PFAS were analyzed by Method OM022; however, the Final Quality Assurance Project Plan (QAPP) dated July 21, 2023, indicates that Method OM021 will be used for groundwater samples. Please explain the discrepancy. Deviations in methodology from the approved QAPP should be reviewed and approved by the agencies. Please indicate in the Technical Memorandum why a different Method was used and if approval was given.
7. Data Validation, fifth and sixth sentences discusses the rejected/unusable data results.
 - a. If this data is unusable, it should be removed from the figure or at least flagged in the figure as unusable. Please revise figure.
 - b. The note on the results tables (Attachment B) indicates that an R represents unusable data, and the sample results are rejected due to serious deficiencies in meeting quality control (QC) criteria. Please clarify if this means that some of the compounds data results are usable in the sample or if all data in that sample should be considered unusable.
8. OU2 Groundwater Investigation Sampling Results, Table 2. Please add Pesticides and Polychlorinated Biphenyl (PCBs) to the table.
9. Field Parameter Measurement Results, third sentence indicates the highest pH is 13.21. According to Figure 19, it should be 13.31.
10. The drum storage area is mentioned several times in the Technical Memorandum, but the location of this storage area is not indicated on Figure 2. Please indicate this storage area on Figure 2.
11. Figures. Some of the sampling points appear to be missing on the Figures. Please verify that all sampling points are being shown.

12. Figure 10. The sampling point colors do not match what is presented in the legend. Please fix the legend for this figure.
13. Fix the formatting on the results table, the rows are different sizes, lines are missing, and several cells are empty.

We appreciate the opportunity to review the OU2 Groundwater Technical Memorandum – Year 1 and provide comments. If you have any questions or concerns, please contact me at 517-256-2681; CynarM@Michigan.gov; or EGLE, Remediation and Redevelopment Division, P.O. Box 30426, Lansing, Michigan 48909-7926.

Sincerely,




Megan Cynar
Project Manager
517-256-2681

cc: Courtney Fung, EGLE
Matt Baltusis, EGLE

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Technical Assessment Memorandum

TO: Megan Cynar, Project Manager
Superfund Section, Remediation & Redevelopment
Defense/Superfund Site Management and Administrative Unit

FROM: Matt Baltusis, Senior Geologist 
Superfund Section, Remediation & Redevelopment
Technical Support Unit

DATE: June 13, 2024

SUBJECT: Comments to Operable Unit 2 Groundwater Technical Memorandum –
Year 1; McLouth Steel Corp. Superfund Site; Trenton, Michigan

Introduction

Michigan Department of Environment, Great Lakes, and Energy (EGLE) has reviewed the document titled “Operable Unit 2 Groundwater Technical Memorandum – Year 1” (memorandum) prepared for the United States Environmental Protection Agency, Region 5, Superfund and Emergency Management Division by CDM Smith dated May 17, 2024. The objectives were to summarize groundwater quality data collected during the November and December 2023 sampling event, characterize the nature, extent, and concentrations of chemical contaminants in groundwater and provide recommendations for additional site characterization, where appropriate.

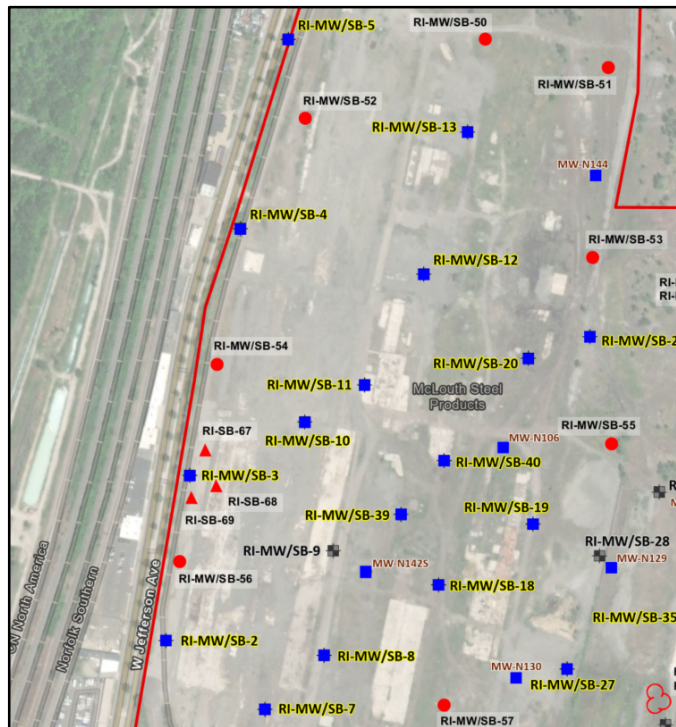
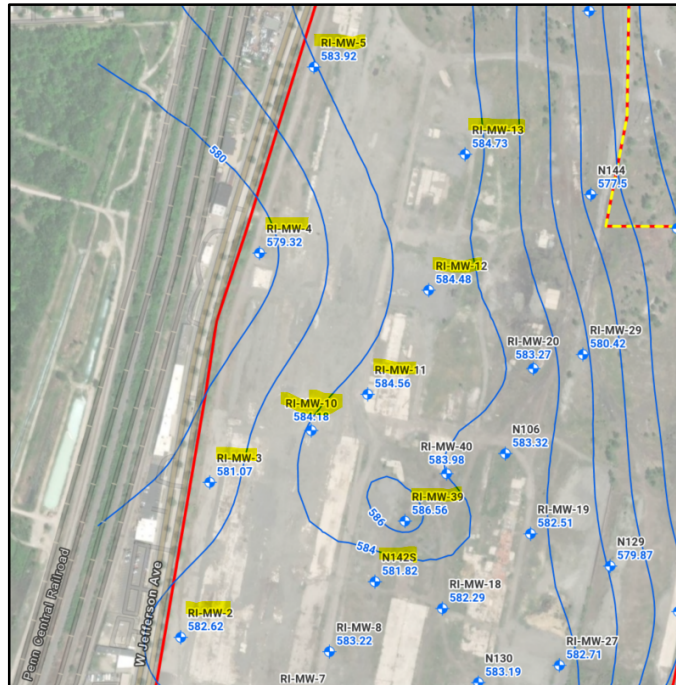
General Comments:

None.

Specific Comments:

1. Page 4, Synoptic Water Level Measurement.
The text states "A groundwater divide is apparent, extending north–south through the middle of the site. The November 2023 synoptic round was collected on November 3, 2023, approximately 2 weeks after a rain event on October 20, 2023, that yielded 0.04 inches of rainfall. The presence of this groundwater flow divide may be a result of preferential or enhanced infiltration in the unpaved portions of the site. There may be potential influence of groundwater pumping or groundwater discharge at the former quarry west of West Jefferson Avenue. Additional synoptic water level rounds at dryer times of the year will be required to evaluate the persistence of the groundwater flow divide observed in the November 2023 data."

EGLE requests collecting water-levels from select monitoring wells (prior to installation of the following monitoring wells: RI-MW/SB-52, RI-MW/SB-54, RI-MW/SB-45) to confirm the presence or absence of the groundwater divide. EGLE's requested select wells for water-level measurement is presented as highlighted monitoring wells in the figures below:



2. Page 5 of the document, Data Validation.

The text states “The data in this technical memorandum underwent data validation as described on QAPP Worksheets 34 through 36, except for PFAS and D/Fs. The data validation reports for those analytes were not available as this technical memorandum was being prepared. The preliminary analytical results for PFAS and D/F are presented herein as they are expected to be usable, but they should be considered preliminary and subject to data validation.”

Please indicate the process that will be used to (a) compare preliminary results to validated results; (b) show the level of difference between preliminary results and validated results; (c) determine if the next steps in the investigation (determined by preliminary results) needs to be amended due to the validated results.

3. Attachment B, Analytical Data Tables, Table B – Semi-Volatile Organic Compound (SVOC) Detection Results.

EGLE notes the following locations are missing SVOC data: RI-MW-19, RI-MW-30, RI-MW-35, RI-MW-39. EGLE requests adding the missing SVOC data or add a note to the table as to the reason for it not being present.

4. Attachment B, Analytical Data Tables, Table F – Inorganic Detection Results.

EGLE notes two samples per location (for example, Location: N-106. Sample #: MW-N106 and MW-N106-F). EGLE requests inserting an explanation of the two sample types and the reason for collecting both.

5. Page 11, Operable Units 1 and 2 Year 2 Scope of Work and Figure 20 – Proposed Year 2 Sampling Locations.

EGLE concurs with the proposed soil boring and monitoring well locations.