UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
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ATLANTA, GEORGIA 30303-8960

November 20, 2023

Ms. Avery Hammett
SRS Remedial Project Manager
Infrastructure and Area Completion Division
U.S. Department of Energy
Savannah River Operations Office
P.O. Box A
Aiken, South Carolina 29802

EPA Comments: THE CALENDER YEAR 2022 D-AREA OIL SEEPAGE BASIN OPERABLE UNIT (631-g) GROUNDWATER MIXING ZONE LETTER REPORT, SEMS Number: 27 DATED JULY 2023 SAVANNAH RIVER SITE AIKEN, SOUTH CAROLINA

Dear Ms. Hammett:
EPA has reviewed this 2022 D OSB 631g GWMZ from July 2023. Our comments are attached.

If you have any questions or require additional information, please contact Jon Richards at (404) 562-8648.

Sincerely,

JON RICHARDS Digitally signed by JON RICHARDS Date: 2023.11.20 15:20:24 -05'00'

Jon Richards, FFA RPM
Restoration & Site Evaluation Branch
Superfund and Emergency Management Division

cc: C.L. Bergren, SRNS-ACP
Susan Fulmer, SCDHEC

GENERAL COMMENTS

1. The Letter Report does not discuss the meaning of "not decision data" (NDD), which is used to characterize the results of compliance wells that are noted in various site figures, including Figure 4 (2022 TCE Plume and Concentrations at DOSB OU). The Letter Report discusses monitoring results for compliance wells DOB16, DOB19 and DOB19A and their associated analytical results are depicted in several site figures; however, the relative site figures characterize the results for these wells as NDD without discussing the meaning in the text. *Please revise the Letter Report to discuss the meaning of the NDD characterization.*

2. A hydrogeological summary in support of the conceptual site model (CSM) that introduces the various hydrostratigraphic units should be included within the Letter Report text. The discussion in the 2022 Data Analyses section (Page 4) describes the water elevations in the AQ1/AQ2 and AQ3 aquifer zone; however, a summary of each aquifer zone is not provided. Although aquifer context (depth, confining units) can be derived from the cross-sections (Figure 3 and Figure 7), a short description should be provided in the text for context regarding the relative aquifer zones discussed. Additionally, the aquifer zone Gordon Aquifer Unit (GAU) is shown in the cross-section figures and listed in Tables 1 and 2 but not discussed in the text. *Please revise the text to include a short summary of the hydrostratigraphic units, including the GAU.*

SPECIFIC COMMENTS

1. **2022 Data Analyses, Page 4:** The last paragraph in the text on Page 4 discusses the trends in wells DOB 12 and DOB 11; however, a trend graph for DOB 12 was not provided in the Letter Report. A trend graph should be provided for DOB 12 to support the statement that DOB 12 has displayed decreasing concentrations in the last eight years. *Please revise the Letter Report to include a trend graph for DOB 12.*

2. **2022 Data Analyses, Page 5:** The text indicates methylene chloride was not detected in DOSB OU Plume Compliance wells; however, it is unclear whether the non-detected results were due to elevated laboratory detection limits. The information in Table 1 (2022 DOSB OU Groundwater Mixing Zone Monitoring Results) indicates the estimated quantitation limit (EQL) for methylene chloride analysis was 5 micrograms per liter (µg/L) which is equal to the maximum contaminant level (MCL). *Please revise the text to discuss how the elevated EQL impacts the assessment of methylene chloride in the DOSB OU Plume Compliance wells.*

3. **2022 Data Analyses, Page 6:** The text states surface water concentrations continue to be below MCLs or remain non-detect; however, according to Table 1 (2022 DOSB OU Groundwater Mixing Zone Monitoring Results) and Table 2 (2022 DOSB OU Natural Attenuation Field Parameters), surface water station DOSBSW1 was dry and not sampled. *Please revise the text to address this discrepancy.*

4. **2022 Data Analyses, Page 6 and Table 1, 2022 DOSB OU Groundwater Mixing Zone Monitoring Results, PDF Page 19:** There is a discrepancy between the text and Table 1 regarding the mixing zone concentration limit (MZCL) and MCL for 1,4-dioxane. The table describes both the MZCL and MCL for 1,4-dioxane as 5 micrograms per liter (ug/L);

however, the text indicates there is no MZCL or MCL for 1,4-dioxane and the current U.S. Environmental Protection Agency (USEPA) regional screening level (RSL) is 0.46 ug/L. *Please revise the table to address the discrepancy.*

5. **VOC Degradation and Field Parameter Measurements, Page 7 and Table 2, DOSB OU Natural Attenuation Field Parameters, PDF Page 20:** There is a discrepancy between the text and Table 2 regarding the reported range of dissolved oxygen (DO) recorded for 2022. The text indicates DO ranged from 0.89 milligrams per liter (mg/L) to 4.8 mg/L; however, Table 2 indicates the highest observed DO concentration was 5.82 mg/L. *Please revise the text to address the discrepancy.*